



The former Redruth Brewery, Cornwall

Historic Environment Impact Assessment



Historic Environment Projects

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The views and recommendations expressed in this report are those of Historic Environment Projects and are presented in good faith on the basis of professional judgement and on information currently available.

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Cover illustration

Looking south towards the former Redruth Brewery from Roach's Row, Plain-an-Gwarry. The children's play park was once the Iron Foundry mill pond. The historic walling that marks the site boundary originally belonged to buildings associated with the 19th century saw and bone mill and later used by the British and Foreign Safety Fuse Works. The natural planting and landscaping in the background stands within the grounds of Penventon Hotel.

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Abbreviations

ABA	Alan Baxter Associates
CC	Cornwall Council
CMP	Conservation Management Plan
CRO	Cornwall Record Office
EH	English Heritage
HER	Cornwall and the Isles of Scilly Historic Environment Record
HEP	Historic Environment Projects, Cornwall Council
KK	Kresen Kernow, the proposed new Council-owned archive facility at the former Redruth Brewery site
MCO	Monument number in Cornwall HER
NGR	National Grid Reference
NRHE	National Record for the Historic Environment
OD	Ordnance Datum – height above mean sea level at Newlyn
OS	Ordnance Survey
OUV	Outstanding Universal Value (of World Heritage Site)
PaG	Plain-an-Gwarry Conservation Area, Redruth
PBWC	Poynton Bradbury Wynter Cole Architects Limited
RIC	Royal Institution of Cornwall
WHS	Cornwall and West Devon Mining World Heritage Site

1 Summary

Historic Environment Projects, Cornwall Council, were commissioned by Jeremy Sneddon of Provelio Limited on behalf of the Economic Development directorate of Cornwall Council in February 2014 to undertake a Historic Environment Impact Assessment on the derelict Redruth Brewery ahead of proposed redevelopment. This Assessment report is intended to provide advice and guidance to the Planning Authority. It is also intended to present an objective account of the site and its heritage assets irrespective of outstanding consents. This Assessment demonstrates that there are a number of historic structures worthy of retention and enhancement. Nonetheless the report also highlights that demolition of modern buildings will provide opportunity to free up the majority of the site area for redevelopment and will also increase visibility of older features.

The site of the derelict Redruth Brewery, located on the north western side of Redruth at NGR SW 69507 42218, has been identified as an area of great development potential to help economically regenerate the town of Redruth. The Historic Impact Assessment has been undertaken following a brief prepared by Mr Phil Markham (HEPAO West Cornwall and Scilly) dated 10/02/2014, which sets out the minimum recommendations that would be expected to inform an outline planning proposal for a mixed use scheme of redevelopment on the former brewery site.

The whole of the former brewery lies within the Plain-an-Gwarry Conservation Area and the Camborne and Redruth Mining District, part of the Cornwall and West Devon Mining Landscape World Heritage Site (WHS). Part of the association with mining (and therefore contributing to its Outstanding Universal Value (OUV), or international significance) is the former British & Foreign Safety Fuse Works (1848) on the northern edge of the site, the remaining buildings of which includes a stump of a chimney and Chymbla House. A range of stone-built outbuildings east of Chymbla House also represents expansion of the fuseworks in the early the 20th century. A sawmill was also formerly located between the brewery and Chapel Street.

The Historic Environment Impact Assessment has targeted the potential for buried archaeology within the former brewery site, a built environment assessment to qualify the retention of historic buildings and extant features within the brewery site, and an assessment of the site's setting and OUV, particularly in relation to its status as part of a World Heritage Site.

The buried archaeology assessment indicates the likelihood for good survival for below ground remains. This is particularly thought to have the potential to provide greater understanding of the former safety fuseworks factory and the saw and bone mill, the historic course and management of the Wheal Silver adit, the Tolgus Stream and Foundry Leat, and the phasing and development of the historic brewhouse.

The built environment assessment identifies that in addition to the old brewhouse there are historic buildings key to the brewery's function and in sound architectural order that merit sensitive restoration and integration into any planned redevelopment. It is proposed that the historic course of the Tolgus stream and its confluence with the leat from the Redruth Foundry merit restoration above ground, which would improve the visual aesthetic of the site, reinstate a public right of way along its route and restore the historic topography of the site. Appropriate treatment of the Wheal Silver adit is also advised to retain its profile and integrate it within any proposed redevelopment plans. Clearance of low value modern structures will open up the site and offer considerable opportunity for sensitive and innovative redevelopment to respect and enhance the historic brewery core and surviving fuseworks buildings.

A matter for consideration has been the already approved consent for the demolition of buildings within the brewery site. This consent appears to have been granted on the basis of a rapid earlier appraisal of the site which has given the impression that the majority of buildings are intrinsically modern and of low significance. Detailed historic

map regression and fieldwork for this assessment shows that a number of these buildings are in fact of historic origin and value, many being key to the phased development of the brewery through the 19th century.

The assessment of the site's setting and OUV determines that views across and towards the brewery site from points within the modern townscape are typically limited to views of the brick chimney stack. The brewery site retains a relatively localised setting, particularly impactful from the direction of Plain-an-Gwarry. It is felt the historic setting of the site is currently compromised by the encroachment of modern development, which includes many of the modern upstanding brewery structures. Redevelopment of the site should ensure the scale of buildings does not obscure views across and towards the historic brewery buildings and that the context and relationship between the surviving fuseworks buildings is respected. Sympathetic treatment of the historic water courses and natural landscaping would help restore the historic topography, the relationship with the former Penventon House, and the wider industrial context.

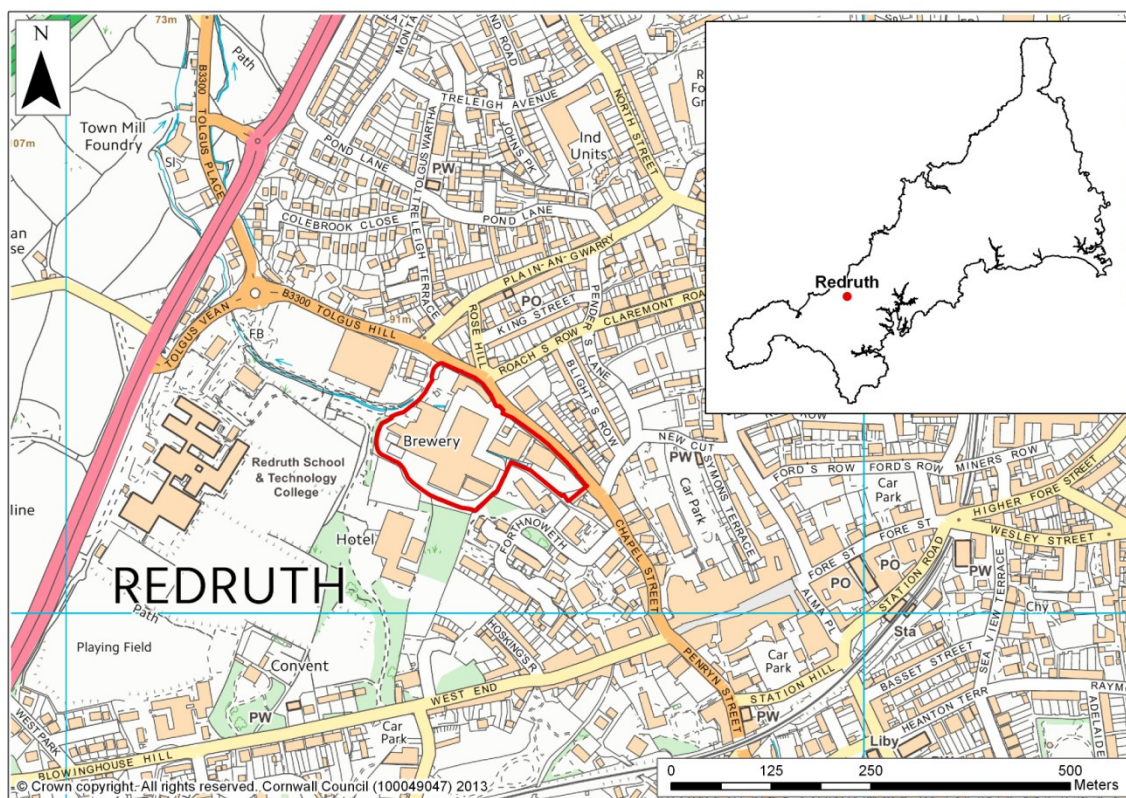


Fig 1 Location map

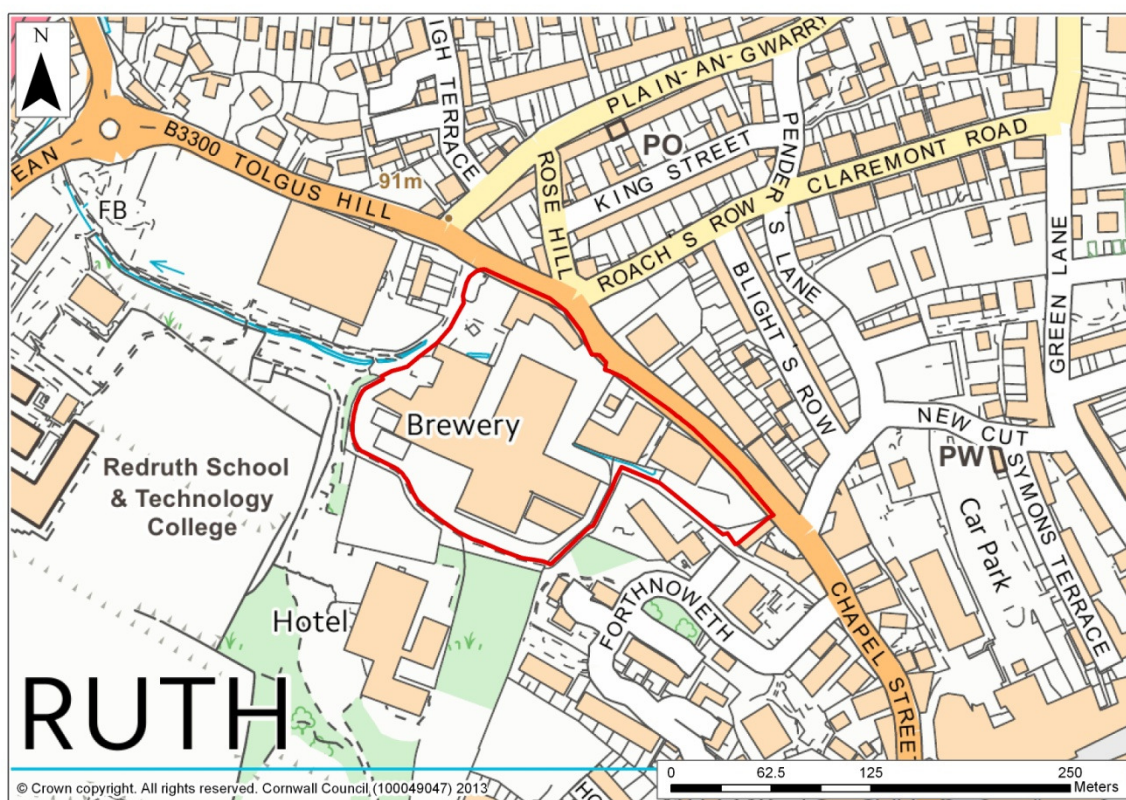


Fig 2 Site extent

2 Introduction

2.1 Project background

Historic Environment Projects, Cornwall Council, were commissioned by Jeremy Sneddon of Provelio Limited on behalf of the Economic Development directorate of Cornwall Council in February 2014 to undertake an Historic Environment Impact Assessment on the derelict Redruth Brewery ahead of proposed redevelopment.

The Historic Impact Assessment has been undertaken following a brief prepared by Mr Phil Markham (HEPAO West Cornwall and Scilly) dated 10/02/2014, which sets out the minimum recommendations that would be expected to inform an outline planning proposal for a mixed use scheme of redevelopment on the former brewery site. The brief states:

This assessment will be required to provide information on the significance of the historic environment and its assets within the development area, especially those pertaining to the Outstanding Universal Value (OUV) of the Cornwall and West Devon Mining World Heritage Site (WHS) and those pertaining to the Plain-an-Gwarry Conservation Area. They should inform the proposed developments Masterplan, scale, massing, design and materials so that the historic significance of the area and its assets are retained or improved. This assessment will include a description of the OUV and will assess the potential buried archaeological potential, the existing buildings and structures and the setting of those historic assets, especially those relating to the OUV.

This Assessment report is intended to provide advice and guidance to the Planning Authority. It is also intended to present an objective account of the site and its heritage assets irrespective of outstanding consents. It follows the vision outlined in the recently issued Cornwall and Isles of Scilly Strategic Economic Plan:

...A unique blend of 'people and place' where the environment is valued both as a business asset and an inspiration for life: Where businesses and individuals can work as communities and thrive to reach their full potential; confident, outward looking, connected to each other and to the world. A place where ideas are nurtured and have the opportunity to flourish - the value of knowledge is realised and applied with understanding...

The site of the derelict Redruth Brewery, located on the north western side of Redruth at NGR SW 69507 42218, has been identified as an area of great development potential to help economically regenerate the town of Redruth. The Economic Development directorate of Cornwall Council has initiated a site Masterplan, and has realised an option to buy parts of the site from January 2014. The Masterplan includes proposals to renovate the core historic brewery buildings to become Kresen Kernow, a new county centre for archives and for promotion of historic studies. The Kresen Kernow site is also the subject of an Initial Heritage Report (to inform a future Conservation Management Plan), which is being undertaken in 2014 by Alan Baxter and Associates.

The wider development site includes the area into which the brewery expanded largely in the later 19th and 20th centuries. Proposals for this part of the site include mixed use plus public realm works and walk alongside the former brewery leat. It is intended that this walkway will connect with the town centre.

This study covers the entire area of the former brewery, as outlined by the red line boundary shown on Fig 2 and the numbered buildings included in the area are shown in Fig 34.

As the Redruth Brewery site lies within the Plain-an-Gwarry Conservation Area, development permissions are guided by the principles set out in the former Kerrier District Council Local Plan, *Policy B.EN/II* (see Section 4), now adopted by Cornwall Council. Conservation Area Consent for demolishing several of the current brewery buildings was granted on 7th February 2013 under Planning Application No PA11/08764. A Planning application has also been approved for the public realm works.

The Conservation Area Consent principally concerns modern structures of no historic value and was granted on the basis of arguments for proposed demolition as presented in the Redruth Brewery Demolition Schedule (Gabriel Design 2012). There are, however, several buildings included in the demolition schedule that are considered to have potentially older origins and/or greater historic value than has been proposed and this assessment aims to clarify their significance or otherwise to the broader history of the brewery.

2.2 Aims

The principal aim of the study has been to gain a better understanding of the historic development of the former brewery and the other industries which once occupied this site. This information has been used to provide an assessment of the brewery and its components and help to inform design and the future direction of the site. The setting of the buildings and its significance within the Cornwall and West Devon Mining Landscape World Heritage Site (WHS) and the Plain-an-Gwarry Conservation Area has also been assessed.

2.3 Methods

The Historic Environment Projects team has undertaken sections 5 to 10 of the planning brief, to include:

- Desk-based research.
- Buried archaeology assessment.
- Built environment assessment.
- Assessment of setting and assessment of OUV for the World Heritage Site.

Section 11 of the planning brief includes a requirement for an overall assessment of the impacts of the proposals. Outline and guiding principles and statements of significance have been provided by HEP. More detailed design guidance for the site has been provided and submitted separately by PBWC Architects Limited.

2.3.1 Desk-based research

During the desk-based assessment historical databases and archives were consulted in order to obtain information about the history of the site and the structures and features that were likely to survive. A study of historic maps and other available sources was used to provide a map regression analysis, to help understand the historic development of the brewery site. The desk-based assessment also drew together the relevant legislative background and guidance.

The main sources consulted were as follows:

- Cornwall HER
- Local archives
- Current legislation, standards and guidance publications (see Section 4)
- Early maps and photographs (see Section 12.1)
- Published histories (see Section 12.2)

2.3.2 Buried archaeology assessment fieldwork

With reference to the WSI (see Appendices) and in accordance with the planning brief, an assessment of the site was conducted to assess the potential for buried archaeology and to inform whether an archaeological evaluation or further archaeological recording of any potential buried remains might be required.

This was addressed in the first instance through drawing together historical and archaeological information about the site and reviewing the historic map evidence as part of the desk-based assessment. A site walkover was then conducted over two days, 28 February and 5 March 2014, to assess the site itself, taking into account the development of the present building layout (as understood from the desk-based study), as well as current ground levels and other indicators.

The key areas of the brewery site where potential buried archaeology might be anticipated were recorded in the first instance through digital colour photography. Relevant maps and plans were then created using GIS software to demonstrate the historic development of the site (as understood from map-based analysis, surviving historic structures and architectural dating evidence) and identify potentially sensitive archaeological areas using a lettering sequence. These are incorporated into the report and discussed in detail in Section 8 and listed in the Site Inventory (Section 12). The findings have informed the recommendations for archaeological mitigation presented in Section 11.

2.3.3 Built environment assessment fieldwork

In accordance with the planning brief an assessment of the site was conducted to examine the site for the survival of historic building fabric and built environment potential.

This was addressed in the first instance through a desk-based assessment which examined existing surveys of the site and its standing buildings (e.g. Joseph 2005) and interim plans for redevelopment, as well as reviewing the current archaeological information and historic map evidence for the site. A site walkover was carried out over two days, 28 February and 5 March 2014, to assess the site, taking into account the development of the present building layout (as understood from the desk-based study) as well as the survival of the core brewery buildings. There is likelihood that some buildings currently identified as non-historic may contain earlier fabric or occupy the sites of older structures.

The equivalent of a Level 1 record has been provided for all non-historic (i.e. later 20th century) buildings and a Level 2-3 record for the historic buildings. On-site work has been recorded by the annotation of suitable large scale site plans (1/1000 or larger), previously prepared with information from historic maps, digital colour photography (with a resolution of 8MP or higher) and written notes following a numbering sequence to help identify buildings/features on the plans. These are presented and discussed in Section 9 and included in the Site Inventory (Section 12).

The findings have informed the recommendations as to which buildings/structures/historic/architectural features should be retained as part of the redevelopment of the site and whether archaeological recording of any extant remains is required. Suggested mitigation in respect of these is presented in Section 11.

2.3.4 Setting assessment fieldwork

The assessment of the setting issues of this proposal has followed English Heritage guidance documents, including The Setting of Heritage Assets: <http://www.english-heritage.org.uk/publications/setting-heritage-assets/>.

Digital colour photographs (with a resolution of 8MP or higher) have been taken from vantage points around the town and within the local vicinity of the brewery site to help inform the settings assessment and illustrate the scale and extent of key viewpoints across and towards the brewery site.

2.3.5 Assessment of OUV for the World Heritage Site

The assessment includes the Statement of the Outstanding Universal Value for this area and describes how this applies to the assets impacted upon by the proposal. As per the brief this details:

- What heritage assets contain or reveal OUV

- The relationship with the rest of the WHS
- Visual relationships
- Process relationships
- Intellectual relationships
- The relationship of other historic environment assets to the significance of the OUV

2.3.6 Assessment of impacts of the proposals

(To be separately commissioned by Provelio limited, with input from Historic Environment Projects, Cornwall Council)

This assessment will provide a synthesis of all of the baseline data into a clear statement of the significance of the site as a whole and its components. It will highlight development opportunities and constraints in terms of maximising the conservation and enhancement of the significant historic assets and OUV.

2.3.7 Post-fieldwork

The assessment report will be produced and distributed by Provelio Limited, on behalf of Economic Development, Cornwall Council. The report will be made available in print and digital versions.

A paper copy and a digital (PDF) copy of the report, illustrations and any other files will be supplied to the Cornwall Historic Environment Record. Paper copies of the report will be distributed to local archives and national archaeological record centres, principally the National Monuments Record (NMR) in Swindon, the Courtney Library of the Royal Cornwall Museum and the Cornish Studies Library. All digital records will be filed on the Cornwall Council network.

2.3.8 Archaeological archive deposition

An index to the site archaeological archive will be created and the archive contents prepared for long term storage, in accordance with Historic Environment standards.

The archiving will comprise the following:

1. All correspondence relating to the project, the WSI, a single paper copy of the report together with an electronic copy on CD, stored in an archive standard (acid-free) documentation box
2. A2 drawn archive storage (plastic wallets for the annotated record drawings)
3. Digital colour photographs (stored according to Historic Environment Record guidelines)
4. The project archive will be deposited initially at ReStore PLC, Liskeard and in due course (when space permits) at Cornwall Record Office.
5. Completion of the English Heritage/ADS OASIS online archive index

3 Location, topography and geology

The former Redruth Brewery site is located within the Tolgus Valley on the northwest side of Redruth at NGR SW 69507 42218. The underlying geology is comprised of Upper Devonian mud, silt and sandstones on the edge of the granite uplands to the southwest and southeast, where the harder intruded granite has formed the distinctive outcrops of Carn Marth and Carn Brea. The igneous granite and its rich mineral lodes lie at the heart of the Redruth and Camborne Mining District and the mining and associated industry that grew up around this area has played a significant part in shaping the town of Redruth and the history of its surrounding area. To the north of the brewery site is

Plain-an-Gwarry, which developed as an independent industrial settlement on the northwest flank of Redruth. Despite significant growth during the 18th century Plain-an-Gwarry was still largely separated from Redruth by green fields during the late 19th century, becoming more fully incorporated within the wider urban extent by the early 20th century. Plain-an-Gwarry has been a designated Conservation Area (DCO92) since 1993, to which the Redruth Brewery site was added in April 2010.

The softer slatestones around the granitic margins have eroded to form deep valleys and areas of lower lying ground. The former brewery site occupies a relatively broad level area of ground at around 88m OD, close to the point where the Tolgus valley widens out from the higher granite to the southeast, the valley being notably narrower and steeper in form prior to this point. The Tolgus valley forms a major channel for communications along the lower ground, with the historic routeway between Falmouth and Portreath, now the B3300, running along it from southeast to northwest, passing along the northeastern edge of the brewery site as Chapel street and Tolgus Hill. Another major routeway, the main west to east road running from Lands End to Truro and beyond, now the A3047, meets with this route to form a crossroads near the shallow fording point over the Tolgus stream, which also runs along the Tolgus valley, feeding down from the higher ground to the southeast.

The Tolgus stream has been integral to Redruth's history; the shallow fording place at the base of the valley determined the location of an early settlement point from at least as early as AD 1250, when the town is first documented. The reddish colour of the stream is due to a long standing history of tin streaming and Redruth derives its name from the Cornish place-name elements *ruth* 'Red' and *rid* 'ford'. The stream is now largely culverted through the town but continues to run above ground through part of the former brewery site, in an area more generically called 'The Leats'; this is probably due to the modification and management of the water course in this area during the 18th to 19th centuries to provide water power to various local mining setts and associated industries, including the Redruth Iron Foundry (MCO4690), which stood to the north of Redruth Brewery, and Sara's Foundry (MCO24801), which stood around 500m to the northwest and was previously the site of the medieval Town Mill. A diverted section of the Tolgus stream, referred to by this report as Foundry Leat, is shown on the 1855 Town map as a leat feeding from the Redruth Iron Foundry millpond through an underground sluice to re-join the main Tolgus stream, or Brewery Leat, somewhere within the brewery site; this is probably the pond or leat shown on the 1855 Town map. Any relationship concerning these two leats is currently lost but evidence for this may survive below ground in the vicinity of Area F (see Section 8).

Although the Tolgus stream was probably a valuable source of water to the Redruth Brewery, the location of the brewery may originally have been determined by the proximity of the Wheal Silver adit, which is thought to issue from within the Carn Brea mining sett to the south. Originally this fed a large storage reservoir; the adit is documented on the 1841 Redruth Tithe map (Fig 17) and the reservoir is shown on the 1855 Town map (Fig 18). Currently the adit continues to run beneath the disused brewery buildings as an open water source, issuing out into a covered modern yard where the reservoir once stood.

The 1841 Redruth Tithe map demonstrates that even by the mid-19th century the Redruth Brewery site was still largely surrounded by fields from the southeast round to the southwest. The curving nature of some historic field boundaries, particularly evident to the southeast (Fig 17), suggests the relict boundaries of medieval strips, which would originally have formed part of the medieval open field for Redruth. Originally within an area of ancient enclosure, this now forms part of Redruth's urban extent and is characterised in the Cornwall and Scilly Historic Environment Record (HER) as 'Settlement; C20': that is settled areas from larger farming settlements upwards. To the south and west of the former brewery site the enclosures shown on the 1841 Tithe map are characteristically larger and more regular, suggesting an area of post medieval enclosure. Although this area also now falls within Redruth's urban extent and is

therefore characterised as 'Settlement; C20', immediately adjacent to the brewery site there is the potential for a number of these historic field boundaries to still survive, preserved within the former Penventon estates and within the playing fields and grounds of Redruth School and Technology College.

The plots within the former brewery site as recorded in the 1841 Redruth Tithe apportionment are as follows:

- 1942 – Brewery and Yard. Landowner: Magor, Davey and Co., lessees. Occupier: themselves.
- 1946 – Malt House and Yard. Landowner: Magor, Davey and Co. Occupier: themselves.
- 1947 – Garden; House and Yard; Garden. Landowner: John Magor Esq. Occupier: himself.
- 2698 – Enclosure. Landowner: C. and R. Whitford, lessees. Occupier: John Magor.
- 2705 – Peak Field; Audit and Waste, Mowhay. Landowner: C. and R. Whitford, lessees. Occupier: Tobias Michell.
- 2707 – Meadow near Foundry. Landowner: Robert Theophilus Garden, Esq., George Drake Esq. and Mrs Celia Frances Chudwick. Occupier: Samuel Treloar.
- 2708 – Meadow near Brewery. Landowner: Robert Theophilus Garden, Esq., George Drake Esq. and Mrs Celia Frances Chudwick. Occupier: Magor, Davey and Co.
- 2709 – Garden. Landowner: Robert Theophilus Garden, Esq., George Drake Esq. and Mrs Celia Frances Chudwick. Occupier: Magor, Davey and Co.
- 2710 – Garden and House. Landowner: Robert Theophilus Garden, Esq., George Drake Esq. and Mrs Celia Frances Chudwick. Occupier: Nicholas Messenger
- 2711 – Meadow, near Foundry. Landowner: John Hocking, lessee. Occupier: himself.
- 3502 – Road from Town to Brewery
- 3505 – Plainangwarry (road)

To the northwest of the Redruth Brewery at Little Vauxhall, plot 1943 is recorded as Stable and Yard, near Brewery, Landowner and Occupier - Magor, Davey and Co. This now underlies the goods yard for Tesco Superstore.

4 Legislation and guidance

The following section brings together policies and guidance (or extracts from these) used in the development of the assessment and its methodology.

4.1 World Heritage Site Management Plan

The Cornish Mining World Heritage Site was inscribed by UNESCO in July 2006. Issues 4 to 8 of its management plan policies refer to protection and conservation. The statements which are most relevant to the former Redruth Brewery include:

Policy 4c Planning authorities should ensure that new development protects, conserves and enhances the [World Heritage] Site and its setting.

Policy 7a Sustainable heritage-led regeneration will be encouraged and supported.

Policy 7b New development should add to the quality and distinctiveness of the Site by being of high quality design and respectful of setting.

Policy 7c There should be a presumption in favour of retaining and re-using historic buildings which are important components of the Site.

Policy 8a 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 8b The historic character and distinctiveness of the Cornwall and West Devon mining landscape should be maintained.

Policy 8c Traditional materials and skills should be encouraged in the maintenance of the authentic historic fabric within the Site.

Policy 8d Where the historic fabric within the Site has been lost or compromised through non-authentic materials, inappropriate details and poor workmanship, historic character and detail will be reintroduced wherever and whenever possible.

4.2 National Planning Policy Framework 2012

The following paragraphs within the above document frame planning policy relating to the historic environment and are germane to this assessment:

128. *In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.*

129. *Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.*

132. *When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.*

133. *Where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:*

- the nature of the heritage asset prevents all reasonable uses of the site; and*
- no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and*

- *conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible; and*
- *the harm or loss is outweighed by the benefit of bringing the site back into use.*

134. *Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.*

135. *The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.*

139. *Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.*

4.3 Planning Policy Guidance: Planning and the Historic Environment (PPG 15)

Guidance relating to Listed Buildings and Conservation Areas is to be found in Planning Policy Guidance: Planning and the Historic Environment (PPG 15) published by the Department of the Environment and the Department of National Heritage, September 1994. Section 4 refers to policies for Conservation Areas:

4.25 Conservation area designation introduces control over the demolition of most buildings within conservation areas (section 74 of the Act); exceptions are specified in section 75 and in the relevant direction. Applications for consent to demolish must be made to the local planning authority or, on appeal or call-in, to the Secretary of State. Procedures are essentially the same as for listed building consent applications. Authorities' own applications must be made to the Secretary of State. Scheduled ancient monuments are exempt from conservation area control: scheduled monument consent for proposed works must be sought from the Secretary of State for National Heritage (see PPG 16).

4.26 In exercising conservation area controls, local planning authorities are required to pay special attention to the desirability of preserving or enhancing the character or appearance of the area in question; and, as with listed building controls, this should be the prime consideration in determining a consent application. In the case of conservation area controls, however, account should clearly be taken of the part played in the architectural or historic interest of the area by the building for which demolition is proposed, and in particular of the wider effects of demolition on the building's surroundings and on the conservation area as a whole.

4.27 The general presumption should be in favour of retaining buildings which make a positive contribution to the character or appearance of a conservation area. The Secretary of State expects that proposals to demolish such buildings should be assessed against the same broad criteria as proposals to demolish listed buildings (paragraphs 3.16-3.19 above). In less clear-cut cases - for instance, where a building makes little or no such contribution - the local planning authority will need to have full information about what is proposed for the site after demolition. Consent for demolition should not be given unless there are acceptable and detailed plans for any redevelopment. It has been held that the decision-maker is entitled to consider the merits of any proposed development in determining whether consent should be given for the demolition of an unlisted building in a conservation area.

4.28 Section 336 of the principal Act states that a building includes 'any part of a building'. The demolition of part of a building should therefore be regarded as falling within the scope of conservation area control. What constitutes a demolition or demolition of part of a building must be a matter of fact and degree, to be decided in the particular case and ultimately by the Courts. Routine works of repair, maintenance or replacement, including work involving such items as doors or windows, would not in the Secretary of State's view normally constitute demolition. Likewise, the removal of internal features, whether replaced or not, would not usually constitute a demolition and for the purposes of conservation area consent would not, in any event, have a material impact on the building's appearance or affect the character or appearance of the area.

4.29 It will often be appropriate to impose on the grant of consent for demolition a condition under section 17(3) of the Act, as applied by section 74(3), to provide that demolition shall not take place until a contract for the carrying out of works of redevelopment has been made and planning permission for those works has been granted. In the past, ugly gaps have sometimes appeared in conservation areas as a result of demolition far in advance of redevelopment.'

4.4 Kerrier District Council Local Plan

The former Redruth Brewery is incorporated within the Plain-an-Gwarry Conservation Area.

Kerrier's Local Plan states the following policies:

Policy B.EN11: Conservation Areas - Preservation or Enhancement

Development within conservation areas will be permitted where:

(i) *it is in keeping with the scale, height, massing, alignment and design of the characteristic built form of the conservation area and is compatible with adjacent buildings;*

(ii) *it preserves existing heritage or architectural features, open spaces, or views of the area that are important to its history or character;*

(iii) *it incorporates locally distinctive building styles and materials; and*

(iv) *it preserves or enhances the character or appearance of the conservation area, other than in exceptional cases of over-riding public interest.*

Development outside but close to a conservation area will not be permitted if it would significantly harm its character, appearance or setting.

Policy B.EN12: Conservation Areas - Demolition

Development within conservation areas, which involves demolition, will be permitted where the structure to be demolished makes no significant contribution to the character or appearance of the area and detailed proposals for the re-use or redevelopment of the site have been approved.

Policy B.EN14: Building Design

Development will be permitted, in terms of its siting and design, where:

(i) *it does not significantly harm the character and appearance of the built environment, the landscape, quality of the natural environment or historic heritage;*

(ii) *the form, scale, bulk, height, design, siting, layout, density and access are in keeping with the character and appearance of nearby buildings and the built environment of the locality and is not significantly harmful to the amenities of the occupiers of nearby property; and*

(iii) it incorporates locally distinctive building styles, materials and a scheme of landscaping.

Kerrier's Local Development Framework includes the following:

S02: The Objectives for the Built Environment and Historic Heritage

S02 i: create a safe, crime free and attractive built environment of mixed and liveable town and village communities which meet the community's aspirations, function successfully for all and where social inclusion and improved opportunities for a healthy life style and a better quality of life will attract people to want to live and work;

S02 ii: protect, conserve and enhance the distinct character of settlements, the quality and historic heritage of the built environment and foster local features, styles, traditions, cultural diversity and community identity, in which there is local pride and is an attraction to visitors;

S02 iii: conserve, reuse and use land efficiently, restore derelict and contaminated land, including from past mining, and regenerate the urban environment.

5 Designations

5.1 International

The site lies within the Camborne and Redruth Mining District, part of the wider Cornwall and West Devon Mining Landscape World Heritage Site (WHS) (DCO1755).

5.2 National

No national designations apply to the site proposed for redevelopment.

5.3 Regional/county

No regional designations apply to the site proposed for redevelopment.

5.4 Local

The site lies within the Plain-an-Gwarry Conservation Area

5.5 Rights of Way

A public right of way traverses the site from southeast to northwest along the historic course of the Tolgus stream, part of which is now rerouted and/or culverted beneath the currently standing brewery buildings.

6 Statement of OUV

6.1 OUV principles

The following statement of outstanding universal value for the Cornwall and West Devon Mining Landscape World Heritage Site was presented in The Cornwall and West Devon Mining Landscape World Heritage Site Management Plan (2013-2018, Appendix 8.1):

The Cornwall and West Devon Mining Landscape was transformed during the period 1700-1914 by early industrial development that made a key contribution to the evolution of an industrialised economy and society in the United Kingdom, and throughout the world. Its outstanding survival, in a coherent series of distinctive cultural landscapes, is testimony to this achievement

This statement was further qualified in relation to The Camborne and Redruth Mining District with Wheal Peevor and Portreath Harbour (District A5) as follows:

Area A5 (50008'53"N, 05039'21"W) - the mid-west Central Mining District, the richest non-ferrous metal mining district of the late 18th and first half of the 19th century, the most populated, most urbanised, the most innovative in the Site, an internationally significant centre for safety-fuse and rock-drill manufacture and an epicentre of migration.

Redruth and Camborne are considered the two most historically important mining settlements in The Camborne and Redruth Mining District; Redruth has been called 'The Capital of Cornish Mining' (The Cornwall and West Devon Mining Landscape World Heritage Site Management Plan 2013-2018, Appendix 8.1). Assessment of the former Redruth Brewery site has included due consideration of how the standing historic buildings, surviving industrial components and the wider setting of the brewery site contribute to the integrity of District A5, which along with 9 additional Cornish mining districts forms part of a unified, coherent cultural landscape and shared common identity whose architectural, industrial and cultural components have informed their designation as an internationally important World Heritage Site (WHS).

6.2 Application of the OUV

The following is an interpretation of the OUV based on the evidence gathered for this Assessment.

The former Redruth Brewery site is situated within an historic core of mining and associated industry at Plain-an-Gwarry on the northwest edge of Redruth. The development of this area of Redruth between the 18th to early 20th centuries has resulted in a striking legacy of industrial and cultural heritage, much of which is sensitive to modern redevelopment and considered to be at high risk of compromise, damage or loss.

The Redruth Brewery was originally sited at Sparnon Gate and relocated to Little Vauxhall in the Tolgus valley around 1792. Its new location was to take advantage of a reliable water source from a long disused adit associated with Wheal Silver at Redruth's West End. Although possibly redundant or augmented since around 1873 when an alternative water source was piped in from the Trewirgie tenement owned by Lieutenant-Colonel Sir Redvers Henry Buller, the adit remains open and clear water currently still runs from it; this presently drains away through the derelict brewery site to the west, although the means of drainage is not known.

In addition to the Wheal Silver adit, the Tolgus stream that runs through the brewery site from the southeast to the northwest would have provided a valuable source of water power, although its precise function within the brewery site remains unclear. Plans and records of the early 19th century show that the stream commenced from the adits of 'Wheal Fat' a mine at Clijah, Southgate, and Trewirgie Downs Mine, nearby. Historically the Tolgus stream was partially diverted at Wheal Buller Downs to work machinery at Wheal Sparnon and Pednandrea before emptying into a shaft in Trefusis Square, eventually re-joining the main stream at the bottom of Redruth within the former brewery site. The historic management of the Tolgus stream provided the power for a number of mining processes and mining-related industries along its course but the stream and its diverted courses are now largely culverted beneath Redruth town centre. During the digging of foundations for the Baptist Church at the bottom of Treruffe Hill in 1876, however, ancient tin stream works were discovered beneath several feet of gravel (Tangye 2010).

In the vicinity of the Redruth Brewery a diverted course of the Tolgus stream powered saw and bone mills along Chapel Street. It ran along the south side of Blights Row to a mill pond at Redruth Hammer Mills, later the Redruth Iron Foundry, on the north side of Chapel Street. The 1855 Town map (Fig 18) shows a sluice at the southwest corner of

the Iron Foundry mill pond, from where this stream, or Foundry Leat, ran through an underground culvert southwards towards the brewery where it re-joined the main Tolgus stream running through the brewery site from the east. The stream at this point was named Brewery Leat and it continued westwards to form a mill leat to power waterwheels at Redruth's Town Mill, later Saras Foundry.

Currently, the course of the Tolgus stream/Brewery Leat follows a modified route through the brewery site, much of which is now culverted (Fig 36). Its precise course and the relationship between its historic course and function is partially lost as a result of this modern re-routing. Where the stream does run above ground, both within the brewery site extent and either side of this, its condition is deteriorating, with the stream banks and bed partially littered and the historic granite posts and iron railings that ran alongside the stream largely damaged or long absent (Figs 38 and 39). A public right of way runs alongside the stream from Chapel Hill, around the southwestern edge of the brewery site and alongside the Tesco car park. It appears that the right of way originally followed the route of the leat through the brewery site but this was diverted southwest when the brewery expanded in the later decades of the 20th century. It would be desirable to reinstate this route.

The Tolgus stream is not only integral to the location and development of the industrial core at Plain-an-Gwarry; it is also an aesthetic foil to the hardness of the surrounding built landscape. Its original course through rural fields at this point is now largely lost. There are, however, some vestiges of surviving field and Cornish hedge boundaries, notably to the east of the brewery site, bordering the stream and the adjoining footpath where it approaches from Chapel Hill (Figs 6 and 7), and along the side of the current Tesco car park. Additionally, historic planting and landscaping to the west of the brewery site within the grounds of the Penventon Hotel has been progressively diminished through the gradual expansion of the brewery site to the west, more recent development within an area of previously formal gardens and through general neglect. Penventon House was built for the brewery owner, John Pemberthy Magor, in the 19th century and the relationship between Penventon and the brewery is now considerably compromised and indistinct. There is a loss of boundary definition and the historic character and setting of both sites have been impacted by expansion of the brewery into the lower part of the Penventon gardens, modern tarmac paths and fencing along the approaches to and around the brewery site and by the deterioration of green planting in this area (see Fig 39, for example).

Incorporated within the current extent of the brewery site are the remains of buildings historically associated with a safety fuseworks (MCO24804). Early buildings shown on the 1841 Tithe map may reflect the original foundation of the works adjacent to the brewery. The safety fuse was invented by William Bickford in 1830 and revolutionised the mining industry and greatly improved safety when undertaking underground blasting. The works at Plain-an-Gwarry were founded by Alfred Lanyon's British and Foreign Safety Fuse Company c1848; the fuseworks expanded into the early 20th century, incorporating the site and some buildings originally associated with a 19th century saw and bone mill (MCO28918). Fuse manufacture at the Plain-an-Gwarry works had ceased by the First World War when the site was used as a munitions loading plant. An RAF vertical aerial photograph of 1946 (Fig 23) shows many of the fuseworks buildings still extant, but a 1974 drawing from the OS map of 1967 (Fig 21) suggests that the majority of these had disappeared by this point; the site was taken over by a substantial knitwear factory that may have converted some of the surviving fuse factory and earlier saw and bone mill buildings for warehousing and offices. The 1974 drawing (Fig 21) shows a knitwear works on the site of the current Tesco Superstore, which may have been the main knitwear factory building.

By 1967 only the original chimney stack, the 19th century building now known as Chymbbla House (Fig 40), and a small square building to the north of the historic brewhouse adjacent to the leat, possibly a magazine (MCO12740), remained of the original safety fuseworks. The stack currently stands to just above the base (Fig 41)

and the magazine is also largely ruinous and covered in ivy (Fig 42). The interior of Chymbla House has been modified during its use by the knitwear factory and subsequently Redruth Brewery. Since the brewery site became abandoned in 2004 this building has suffered considerable damage through vandalism and attempts at arson.

All that survives above ground of the 19th century saw and bone mill are two buildings (Fig 43) that stand perpendicular to Chymbla House and are now joined to this by modern additions. These buildings have seen substantial modification, particularly along their southern façade; their back walls currently form the northern boundary wall of the brewery site (Fig 44).

Although the historic brewery buildings themselves were not directly associated with the mining industry, they are embedded within the historic industrial core at Plain-an-Gwarry. To carry out the brewing processes they directly sourced and utilised some of the key components of the historic infrastructure associated with mining and its related industries. The setting of the brewery site, its association with Penventon House and its relationship to the wider industrial centre at Plain-an-Gwarry is currently at risk through the impact of general neglect, unsympathetic development that has encroached on the site in recent years, and most devastatingly, vandalism and arson attempts on the historic brewery buildings. Although the location of the brewery site within a World Heritage Site does not in itself guarantee protection or controlled sympathetic redevelopment, this is clearly an important consideration in regard to the wider guidance for the protection of heritage assets and their settings. The brewery site has now been brought into the Plain-an-Gwarry Conservation Area and is therefore subject to the remits of its Conservation Management Plan.

Sympathetic redevelopment of the brewery site aimed at enhancing the profile of the surviving historic brewery buildings and industrial components such as the Wheal Silver adit and the Brewery Leat would make a positive contribution to the setting of the former brewery site and the industrial assets within its extent. It would also augment the historic significance and value of the wider industrial settlement of Plain-an-Gwarry. This would adhere to English Heritage guidance (English Heritage 2011) on conservation principles and help reinforce the visual, historical and intellectual contribution of the former brewery site to the outstanding universal value (OUV) of the Cornwall and West Devon Mining Landscape World Heritage Site (WHS).

7 Site history

[part reproduced from the Redruth Brewery Written Scheme of Investigation (WSI)]

The original brewery is thought to have been started at Sparnon Gate in 1742 by members of the Davey family, moving to the current site in 1792 when it also became Magor, Davey & Company of Redruth. The site had the advantage of water from Wheal Silver adit and proximity to the mineral tramway running to the major harbour at Portreath.

Much of the brewery was built from 1802, with granite coming from nearby quarries at Carn Marth. In 1805 the business became known as 'Redruth Brewery Company', supplying beer shops and pubs across west Cornwall and mines such as Dolcoath Mine, Wheal Uny and Wheal Fortune. By 1873 the site comprised: the brewery, 3 malt houses, counting houses, cottage, engine and boiler house, sheds, carpenters' shop, private office, yards, beer store, aerated water factory, water tanks and water reservoir.

The supply of water was of great importance to the brewery and from 1873 the main source was 'Buller water', taken from the Trewirgie tenement, owned by Lieutenant-Colonel Sir Redvers Henry Buller, famous for his exploits during the Boer War. This water was so clean that it was bottled without further processing other than carbonation and sold as 'Cornish artesian spring water'.

By 1890 the brewery owned over 150 pubs and was one of the largest employers in the area and one of the largest breweries in the West of England. In 1934 the brewery was acquired by John Devenish and was renamed 'Devenish Redruth Brewery Ltd' until the closure of J.A. Devenish, a management buy-out of the brewery and the sale of the pubs in 1991. The brewery went into administration and was acquired by Dransfield Food & Beverages Holdings Ltd and was named 'Redruth Brewery (1792) Ltd' before being transferred to Sino-Cornwall Ltd in 1996. In 2004 the brewery went into administration and over the next year was stripped of machinery and equipment. The derelict site has subsequently suffered from vandalism and a major arson attack on the brewery building in 2011.

In 1848 the British and Foreign Fuseworks constructed a factory (MCO24804) in the northwest corner of the site. A saw and bone mill (MCO28918) is shown to the east of the fuseworks on the 1855 Town map (Fig 18); by the early 20th century the fuseworks had expanded and taken over the saw mill site although the fuseworks closed in around 1908, becoming a munitions loading plant during the First World War and subsequently buildings associated with a substantial knitwear factory. By 1966 a surviving fuse factory building became the Redruth Brewery Company offices and was renamed 'Chymbbla House'.

In 1937 a rectangular Nissan hut (MCO42266) was constructed in the northeast of the now Redruth Brewery site, now known as Winklow House (Figs 45 and 46). The hut has a geodetic corrugated asbestos barrel roof and the building survives as an extremely rare example of a British patented design based on an original by Hugo Junkers of the German aircraft company (Joseph 2005, 47). The hut was originally built as a Drill Hall to replace the 1912 Drill Hall on the opposite side of Chapel Street. It subsequently became part of the knitwear factory before serving as the Redruth Brewery storeroom and shop. To the southeast of Winklow House stands an early 20th century building, shown on the c1907 OS map and used by Redruth Brewery as a Bonded store (Fig 47). The building has served more recently as a cash and carry and a builder's merchants but is currently redundant.

To the east of the Bonded store once stood an early electric cinema (MCO24814), constructed c1910 of galvanised iron and known as the 'Egg Pit' after the founder's (Mr J.G. Stevens) business as supplier of eggs to the London markets. The building is shown on the RAF 1946 Aerial photograph (Fig 23). In later years it served as a GWR garage before being dismantled in 1971 (Tangye 1988, 116-117).

8 Buried archaeology assessment

The Redruth Brewery site was assessed for potential buried archaeology, in the first instance through a desk-based assessment and subsequently through a site walkover, carried out on 28th February 2014. A regressive analysis was carried out using OS and additional historic mapping to facilitate a clearer understanding of the historic development of the site and the potential location of historic buildings and features, both extant and demolished. Phase maps (Figs 26 to 31) were produced to illustrate this potential development and provide the basis for identifying key areas where surviving buried archaeology might be anticipated. These areas were identified on the basis of potential historic interest, the degree of potential archaeological survival and potential informative value. The areas have been given an alphabetical sequence and are included in the site inventory (Section 12). They have also been broadly prioritised according to their perceived significance in relation to the development of the brewery site and the historic and cultural value of its key components, relevant to its designated status within a World Heritage Site and Conservation Area. Principal to this are the historic brewery buildings and the Wheal Silver adit, the Brewery Leat and the safety fuse factory works.

The areas of identified potential for buried remains are presented and discussed below and are also given in the site inventory (Section 12) and illustrated in Fig 32. Where extant buildings or features are referred to, figures in brackets follow the numbering convention used in Section 9).

(note; the overlay of historic maps and plans within a GIS platform contains a small margin of error and the phase maps that are included potentially reflect this. The maps are provided as a schematic to illustrate building relationships and identified areas of key potential but are not intended as an accurate site record).

8.1 Priority 1 Areas

These are the areas considered of highest priority in terms of potentially having information key to understanding the development of the historic brewery and its industrial components, particularly the safety fuseworks, the leat and the Wheal Silver adit. The likelihood of good survival of buried remains is variable in places, particularly within open yard where the ground surfaces may have seen much scraping and resurfacing. This is balanced out, however, by the perceived value of potential below ground remains in these areas.

Within and adjacent to the historic core of the brewery site there are some discrete areas considered to have good potential for buried archaeology and where key information concerning the date and function of the earliest buildings may survive. These would be considered of highest priority as the earliest phase of the site's history is still poorly understood. Of particular interest are:

- **Area A** – a strip of ground known as 'The Channel' (6) that runs between the old brewhouse (4) and a malthouse (5) to its southwest (Fig 48). Its precise function remains unknown and this may have changed over time. It leads from what is now a covered store or yard (15) but what was originally the brewery reservoir fed by Wheal Silver adit (31). A pond and well are shown at the northwest corner of the reservoir on the 1855 Town map (Fig 18), potentially implying that water from the reservoir drained or overflowed from this point, possibly along The Channel and into Brewery Leat (30) to the west. Once the reservoir was covered over a drain or overflow may have continued to run through The Channel; this is possibly referred to on the c1880 OS map (Fig 19). Even in its present condition, water from the Wheal Silver adit is observed to flow to the northwest to drain away towards the eastern end of The Channel, although the means of drainage is currently unknown. The Channel may also have seen historic use as an access way for carts or wagons; a fend-off stone is built in to the northeastern wall and another may survive on the opposite side. A chamfered corner on the northeast corner of building (5), one of the historic malthouses, potentially supports this hypothesis. There is the potential for buried remains to survive within The Channel that would inform both its date and function. If waterlogged deposits are shown to survive beneath the current ground surface in this area there is also the potential for the retrieval of palaeoenvironmental evidence where this is relevant to the historic development of the brewery site.
- **Area B** – a small room on the southwest side of the historic brewhouse (4) containing a low wide brick archway thought to belong to an early building phase (Fig 64). The current ground level of the adjacent room appears considerably raised with good potential for surviving buried archaeological remains that may inform on the date, phasing and function of buildings in this area.
- **Area C** – an area of ground within and adjacent to a possible 18th century porch and early façade on the northwest side of the historic brewhouse (4). An early, possibly late 18th century, granite column survives (Fig 47), potentially in situ; a late 19th/early 20th century painting of Redruth Brewery (Fig 35) shows a porch in this position, bordered by steps to either side. Other features within the

painting suggest a high degree of subjectivity, but the presence of the column may support the accuracy of this particular feature. The twin to this column is not currently visible and may be lost, although it possibly survives incorporated within later walling. Modified openings over two storeys either side of this potential porchway also suggest an earlier symmetrical façade that may date to an early phase of the historic brewhouse (4). Although a modern extension now encompasses the porchway this is relatively insubstantial and there is some potential for evidence of the earlier arrangement to survive below ground in this area. The porchway is considered potentially part of the earliest phase of brewery buildings (see Section 9) and as such is an area of high priority and potential informative value.

- **Area D** – an area adjacent to the southeast exterior of the historic brewhouse (4), incorporating a modern brewhouse (14) and an area of open yard. The modern brewhouse is now demolished to foundation level. The ground surface in this area appears substantially raised above its historic levels, increasing the potential for surviving buried remains (Fig 50). This is potentially a complex area that may retain evidence for the earliest phasing of brewery buildings. Additional buildings and an external staircase are shown appended to the historic brewhouse on the 1855 Town map (Fig 18) and were still extant on the 1967 OS map (Fig 21). An anomalous feature is shown to the north of these on the c1907 OS map (Fig 20), the function of which remains unknown. These features are no longer visible above ground. A historic section of the Brewery Leat (30) ran southeast to northwest across the north of this area; this was rerouted to the north in 1976 and the redundant section reused as a conduit for electric cabling (Joseph 2005, 56), now marked by paving slabs (Fig 37).

Two principal areas of interest within the brewery site are now overlain by areas of open yard and hardstanding. These potentially contain key evidence for buildings relating to the safety fuseworks, the saw and bone mill and the knitwear factory. In some parts the present-day ground surface is noted to be well above historic levels, with the potential for a greater survival of buried remains:

- **Area E** – now an area of open yard overlying the site of the earliest safety fuse factory buildings. Aside from Chymbla House (2) and the base of the fuseworks chimney stack (1) nothing remains of the factory site above ground. There is the potential for some buried remains to survive below ground, although these may be relatively shallow and poorly preserved as the yard surface has probably seen some levelling and resurfacing. Nonetheless, as this area contains one of the key aspects of the brewery site relative to its status within the World Heritage Site it is considered of high priority as any information gained from this area would make a positive contribution to its OUV.
- **Area F** – a substantial area of open yard to the south and southeast of Chymbla House that potentially has surviving below ground remains of several key phases of development relating to the saw and bone mill, the safety fuseworks and the knitwear factory. These may be relatively partial and poorly preserved in places where the historic ground level is shallow and may be obscured by the complexity and extent of redevelopment of this area. There is some potential for relict courses relating to the Brewery Leat (30) and the Foundry Leat (33) to run through this area. The courses of these and their relationship to each other remain poorly understood and there is some potential for buried remains relating to these water sources and their management to survive below ground. Overall, the potential information from this area is considered of high significance in relation to the historic industrial development within the wider brewery site, particularly the water management and the expansion and development of the safety fuseworks as these are both key components of the site in relation to World Heritage Site status and the contribution to its OUV.

A number of modern structures also now overlie key areas of historic development, principally the saw and bone mill, safety fuseworks and the knitwear factory, the historic course of the Brewery Leat, the early reservoir that stored water from the Wheal Silver adit and the Wheal Silver adit itself. The demolition of the modern structures would therefore potentially allow access to surviving buried remains that would significantly enhance our understanding of the historic development and use of the wider brewery site. The principal areas have been identified as:

- **Area G** – adjacent to and contiguous with Area F but currently occupied by a modern warehouse overlying buildings associated with the safety fuse factory, saw and bone mill and knitwear factory. The 1855 Town map (Fig 18) also shows garden plots in this area backing on to the saw and bone mill and running southwest to the Brewery Leat (30). These appear to have remained extant into at least the mid-20th century and are still shown extant on an RAF vertical aerial photograph of 1946 (Fig 23). Relict courses of the Brewery Leat (30) and the Foundry Leat (33) may also survive below ground in this area.
- **Area H** – an area of open yard and modern warehouse overlying the historic course of the Brewery Leat (30). The leat currently feeds into the brewery site above ground from the east to run along the southern edge of the modern warehouse adjoining Winklow House (see Fig 36). Up to this point it appears to follow its original historic course; a section of historic Cornish Hedge boundary (34) remains preserved to the south of the Bonded store (36) and its historic relationship to the leat appears intact. At the southwest corner of the modern warehouse the leat drops steeply away into a culvert covered by a wide iron grid, presumed to be part of the rerouting of the leat in 1976 (Joseph 2005, 56). From this point neither the historic nor the current course of the leat is known but good evidence for both would be expected to survive below ground. Restoring the leat to its historic above ground course would be desirable; this would reinstate the historic industrial setting of the leat at Plain-an-Gwarry and make it possible to restore the route of an historic right of way along it at this point. This would enhance both the visual aesthetic of the leat within the Plain-an-Gwarry Conservation Area and the intellectual appreciation of the leat as a key industrial component of the World Heritage Site's OUV.
- **Area I** – an area now contained within a modern warehouse (Fig 51) but originally the site of the reservoir that stored the water from the Wheal Silver adit (31), shown on the 1855 Town map (Fig 18). The water supply from the adit was augmented or replaced in 1873 by water piped in from the Trewirgie tenement to tanks in the grounds of Penventon House and then to storage tanks on the brewery site (Joseph 2005, 56). The water from this source was so pure it was carbonated and bottled as 'Cornish artesian spring water'. An aerated water factory was documented as part of the brewery buildings by 1883 (*ibid*, 17). Although its site is unknown, it may well have been on the site of the reservoir; two stores (8 and 9) either side of the reservoir are shown on the c1880 OS map (Fig 19), with the reservoir by this point covered by an open yard (15). It is not clear what became of the Wheal Silver adit by this point but presumably some means of storage or drainage must have remained in place as water from the adit continues to flow even at the present-day. There is good potential for the survival of buried remains beneath the current floor surface of the modern warehouse and demolition of this would potentially allow access to these. The buried remains may be expected to include the 19th century yard surface as well as evidence for the underlying reservoir and possibly the related means of water management; a well and an ancillary pond are shown to the west of the reservoir on the c1855 Town map (Fig 18). Clearer understanding of the early water management at the brewery site would be desirable as this would greatly inform the historic development of the site in relation to both the brewery processes and the means by which the brewery integrated itself with the surrounding industries.

- **Area J** – The Wheal Silver adit (31). The historic adit that initially determined the location of the brewery site still contains an open water source that currently outlets from beneath a brewery building constructed in the 1950's (19) (Fig 50), the opening being masonry-lined and having two wooden doors (Fig 53). Within the adit itself and within Area I (above), there is the possibility for buried archaeological remains that may potentially inform the direction of the source and its management as part of the early brewery's primary water supply. Enhancing the profile of the adit and its relationship to the brewery site would be desirable and in keeping with the protection of heritage assets according to the remit of English Heritage conservation guidelines. It also addresses the remit of the World Heritage Site management strategy to consider the industrial components of the historic brewery site in relation to the wider World heritage Site status and the contribution to its OUV.

8.2 Priority 2 Areas

These are areas considered of medium priority, largely expected to contain evidence of ancillary historic buildings associated with the brewery and safety fuseworks but no longer extant. The buried remains of these are likely to survive to a variable degree beneath open yard surfaces or within redeveloped areas of the brewery site. Although evidence related to their date and function would certainly enhance the understanding of historic development of the brewery and safety fuseworks, this may not contribute much more to the evidence already retrieved from historic maps and plans of the site.

- **Area K** – an area presently overlain by modern warehousing but where some sections of historic walling survive (Fig 54). These are thought to relate to a late 19th/ early 20th century construction (10) on the eastern edge of the open yard (15) that replaced the early reservoir, shown on the c1907 OS map (Fig 20). A later extension to this is shown extant on the RAF vertical aerial photograph of 1946 (Fig 23). The function of these buildings is currently unknown. The present-day ground surface is substantially raised in the south of Area K and potentially retains a good survival of buried remains associated with these buildings. As this area lies adjacent to the historic reservoir and adit it is also possible that additional evidence pertaining to these two features may exist below the current ground surface although the value of this may be limited.
- **Area L** – an area of currently open yard, partly redeveloped ground. Two historic buildings (39) are shown in this area on the c1855 Town map (Fig 18). The back walls of these now form the western boundary wall to a rerouted footpath around the brewery site that divides it from the grounds of the Penventon Hotel (Fig 55). The 1855 Town map records the two buildings as an office and workshop and these were still extant on the 1967 OS map (Fig 21) but apart from the back walls are now demolished. A kiln house adjoining one of the historic malthouses (7) is also shown on the 1855 Town map. This was still extant on the c1907 OS map but the RAF aerial photograph of 1946 (Fig 23) shows it gone by this time. Its site is now partly overlain by a conditioning room (25) constructed post 1967 (Fig 56). The current ground surface of the yard in this area appears substantially raised from its historic level and there may be good potential for surviving buried remains associated with the historic brewhouse buildings in this area. Information regarding these buildings would be useful as they are all shown on the 1841 Tithe map (Fig 17) and may relate to a relatively early phase of the brewery's development. Information regarding the kiln house would be of particular interest as it may directly inform the historic brewing processes and wider industrial function of the site.
- **Area M** – an area of partly open and redeveloped yard at the front of the historic brewhouse (4). A small building and garden area are recorded on the c1855 Town map to the southwest of the original gateway and entrance into the brewery site (Fig 18). An additional open shed appears to have been added by the time of the c1880 OS map (Fig 19). Both Buildings are shown on the RAF

aerial photograph of 1946 (Fig 23) but only the north easternmost building next to the brewery entrance is shown extant on the 1967 OS map (Fig 21). At some point this too was demolished, presumably as part of the remodelling of the front yard and the construction of the present entranceway to its southwest. A modern plinth containing fermentation vessels (27) stood within the front yard for a time, but is currently demolished to base level (Fig 57). The clearance of this from the front yard would be desirable to restore the historic aspect of the brewery's entrance and front façade and there is some potential for buried remains relating to the two buildings and the historic gated entranceway to survive in this area. The 19th century painting of the buildings here suggests some particularly high status aesthetic detailing (Fig 35). Given the subjectivity of the painting on many aspects of its portrayal these need to be treated cautiously. If they are accurate they hint at a unique building within the historic brewery complex, possibly an original dwelling for the brewery owner or an elaborate contrivance to impress visitors. The garden area shown on the 1855 Town map also supports a possible dwelling house, perhaps for the owner of the gatekeeper. Additional information on the historic buildings in this area would potentially inform these aspects of the aesthetic and functional development of the historic brewery site.

- **Area N** – a grassed over area beside the Brewery Leat (30) where a pair of adjacent buildings are shown on the c1880 map (Fig 19), one of which is shown still extant on the 1967 OS map (Fig 20). No visible evidence for these currently survives above ground, although a survey of the brewery site (Joseph 2005) recorded both buildings, suggesting they were sheds or stores associated with the safety fuseworks (*ibid*, 59). Area N is an area of raised ground retained as a green area for the majority of the working life of the brewery site. The potential for surviving buried remains is high but the nature and function of the buildings may be peripheral to the primary safety fuseworks site, Nonetheless, this has been flagged as a high priority site to understand in its relation to the wider World Heritage Site status and it would therefore be desirable to evaluate this area further during any landscaping as part of any planned redevelopment.

8.3 Priority 3 Areas

These consist of three areas where the potential for buried remains is possible but where these may be poorly surviving or of relatively low value in terms of understanding the historic development of the brewery or the key industrial components that contribute to the World Heritage Site's OUV.

- **Area O** – a strip of ground to the southwest of one of the historic malthouses (7) that also contains a later brick chimney stack (35). This area of ground is substantially raised and therefore offers potential for the survival of buried remains. The area has seen some redevelopment and currently the foundation platforms of three demolished modern buildings cover much of the present-day ground surface (Fig 58). Historically the northern extent of the gardens at Penventon House may have intruded into this area and greenhouses are shown in the vicinity on late 19th and early 20th century mapping. These are unlikely to have survived below ground to any great extent, although there may be some evidence for footings and foundations. The c1855 Town map (Fig 18) shows a pathway leading northwards from the gardens at Penventon to run into the brewery site to the west of the reservoir. The c1880 and c1907 OS maps (Figs 19 and 20) show this path as a footpath running towards the brewery from the west. Evidence for this is unlikely to survive well beneath Area O, however. Information regarding these historic elements would inevitably enhance the greater understanding of the brewery site but none are considered of high informative value in regard to the key aspects of historic development and intrinsic industrial importance.

A culvert (34) is recorded by Joseph (2005) as running through this area from the east. The date and function of this is unclear but was documented to be part of a series of brick-lined culverts constructed to provide a storm surge capacity for the site (*ibid*, 58). It is possible that this culvert may be associated with a relatively early drainage infrastructure, possibly relating to the covering of the reservoir and the need to provide a replacement drainage channel for the Wheal Silver adit (31). Where evidence for this survives below ground it may help inform its function and relationship to the wider historic water management of the brewery site. It may also be noted that provision for a drainage alleviation scheme as part of any planned redevelopment may also be informed by any surviving historic infrastructure.

- **Area P** – a small area of open yard to the southeast of a range of historic buildings originally associated with the 19th century saw and bone mill and subsequently subsumed within the safety fuseworks (see Fig 43). The c1880 and c1907 OS maps (Figs 19 and 20) suggest an extension or addition to the original 19th century buildings. It is not clear whether this remains as part of the current standing buildings or is now demolished. The raised ground surface of the yard in this area potentially allows for the survival of buried remains but their likely informative value is considered to be relatively low.
- **Area Q** – an area of hardstanding to the southeast of the Bonded store in the far southeast of the brewery site. This was once the site of the electric cinema known as the Egg Pit (MCO24814). Although the raised ground levels in this area may allow for the survival or buried remains the construction of the cinema was of galvanised iron and little is likely to remain below ground except possibly some slight evidence for footings or foundations. Furthermore, this construction, whilst of historical interest in itself, would be considered of low informative value in relation to either the development of the historic brewery site or the industrial heritage of Plain-an-Gwarry as part of a designated World Heritage Site.

8.4 Recommendations

In respect of the assessment for buried archaeology potential and the statements of significance given above, the following recommendations can be made:

- Evaluative trenching is required ahead of any site clearance or groundworks in order to target some of the key areas identified as having good potential for buried archaeological remains and high informative value. The exact scale and positioning of trenches can take into account accessibility and the position of below-ground services but are recommended towards either end of Area A, within Areas B and C and across targeted sections of Areas D, E, F, G, H and J. There should be suitable provision for the professional evaluation and recording of any exposed archaeological features and remains and any necessary post-excavation analysis, recording and archiving.
- Regular watching briefs are recommended during demolition of modern structures and ground clearance in Areas A through to Q. These could be undertaken periodically dependant on the programme of works but would need suitable provision for evaluation and recording of exposed archaeological features and remains as and where these were required.

9 Built environment assessment

9.1 Chronology

The present day brewery site represents historic and development of industries in this area of Redruth over two centuries. It represents several activities including the

brewery itself plus other sites of other industries that the brewery eventually absorbed. These include:

- The British and Foreign Safety Fuse Works, established in 1848 (Joseph 2005, 16).
- A saw and bone mill complex, also developed in the mid-19th century.
- A Territorial Army drill hall and associated buildings, established on Chapel Street in the 1930s.

The later development of the brewery also expanded into the former walled garden of Penventon House (now the Penventon Hotel). A post-war knitwear factory (based at what is now the Tesco supermarket site at Tolgus) is recorded to have also had premises within the brewery site (Joseph 2005, 19) although there is no identified mapping, aerial photography or visible structural evidence to support this. There is a possibility that some traces from the factory may still survive below ground.

This impact assessment study has identified 9 key periods of development from the 18th century to the present day. As is typical with industrial complexes which experience rapid changes in technology and needs for greater capacity, further analysis of the buildings may identify numerous sub-phases of development. The following chronological sequence has been identified from analysis of structures from the desk-based study and site walkover fieldwork. Site numbers relate to the numbered descriptions in the Site Inventory (Section 12).

Period 1: 18th century or earlier

- Wheal Silver adit (31)
- the Channel (6)
- Tolgus stream (30)
- (??) Leat from Redruth Foundry (33)
- Hedge (34) - first mapped in 1841 but probably much earlier

Period 2: late 18th century to c1800

- Core brewery buildings within Old Brewhouse (4)
- Malthouse (7)

Period 3: pre-1841

- Floorplan additions to Old Brewhouse (4)
- Malthouse (5)
- (site of) brewery yard entrance building
- Buildings alongside present footpath (now partly demolished) (39)

Period 4: pre-1855

- Chymbla House (2)
- Fuseworks stack (1)
- (site of) building associated with fuseworks stack
- (site of) saw and bone mills
- (site of) open fronted shed in brewery yard
- (site of) reservoir, which stored water from Wheal Silver adit (overbuilt from the 1870s with yard (15) and buildings (8) and (9)).

Period 5: pre-1880

- Later 19th century heightening of brewhouse (4)
- Yard (15) and buildings (8) and (9). Aerated water factory?
- Building (3)
- Fuseworks magazine (41)
- (site of) western fuseworks building
- Gateposts on N side of site (37)

Period 6: pre-1907

- Refitting of brewhouse with brick gables and new roofs (4)
- Bonded store (36)
- Building (10) added to E side of yard (15)
- Loading plinth (40)

Period 7: 1930s

- (site of) Electric Cinema (at extreme eastern end of site, beyond the bonded warehouse)
- Winklow House (11)
- Kimberley House (outside project area but next to and associated with Winklow House)
- Original part of warehouse (12)
- Demolition of malt kiln adjoining malthouse (5)
- Construction of the present brewery chimney stack (35)
- East extension of buildings (8), (9) and (10)

NB: Winklow House, Kimberley House and warehouse (12) originally belonged to the Territorial Army.

Period 8: 1950s

- Building (19)
- ??Lean-to (22)

Period 9: post 1967 to modern

- Brewery yard wall and gates (29)
- Gates adjoining Winklow House (37)
- Warehouse (13)
- Warehouse (16)
- Warehouse (17)
- Compressor house (18)
- Roofing over of yard (15)
- Filter room (20)
- Lean-to (21)
- Can room (23) (now reduced to foundations)
- Boiler house (24) (now reduced to foundations)
- Conditioning Room (25) (ground floor remaining, tank superstructure removed)
- Fermentation vessels (26) (ground floor remaining, tank superstructure removed)
- Fermentation vessels (27) (now reduced to foundations)
- Generator houses (28)
- New Brewhouse (14) (now reduced to foundations)
- Infill structures at E end of the Channel (32)

It is to be noted that several of the larger and taller late 20th century buildings (particularly the New Brewhouse and fermentation tanks 27) served to mask many of the older structures. Other older buildings (such as the ground floor of Building 8) have also been heavily disguised by re-finishing of walls in concrete blockwork or shuttering.

9.2 Materials

The building materials used in the brewery site can largely be distinguished by their periods so this helps to date the individual buildings. Buildings dating to Periods 2, 3 and 4 (such as the core brewery buildings (4), (5), (7) and Chymbra House (2)) are of traditional vernacular construction and also have local slate stone walls and dressed granite quoins, window jambs and lintels. The earliest roof coverings have been

replaced but are likely to have originally been rag or scantle slates (in diminishing courses).

Period 5 represents a heightening of parts of the Old Brewhouse (4), to include squared grey granite jamb-stones and arch springing stones, shallow brick arches to windows, with sized slate roofs (Figs 59 and 60). Period 5 also introduced an architectural rarity in the early curved roofs used for buildings (8) and (9) (Figs 64 to 66).

Period 6 introduced a classical feel to the brewery façades, with buff brick arched gables and tower additions to the Old Brewhouse (4) (Figs 59 and 60). Its roofs were adorned with Edwardian style spaced crested tiles and finials, also visible on the bonded warehouse (36) (Fig 47).

Periods 7, 8 and 9 are an assortment of mostly 20th century buildings and these include rendered and un-rendered concrete blockwork, shuttered concrete and steelwork, covered with corrugated asbestos and steel sheet cladding as well as artificial slates. The most unusual building in this group is the 1930s Winklow House with its very rare patented geodetic barrel construction (Fig 45).

9.3 Historic importance

The oldest buildings on the site relate to the very late 18th century founding of the brewery; these are parts of the Old Brewhouse (4) and most likely also malthouse (7). The historic course of the Tolgus stream (30) has a distinct meander around the brewery complex and may have been diverted to accommodate the complex. Wheal Silver adit (31) is also a primary part of the site; without this reliable and clean source of water the brewery would not have been constructed here.

The original brewery buildings were soon joined by malthouse (5), seemingly squeezed in close to the Channel (6) and it is clear that the main brewhouse complex had achieved its present footprint before 1841.

An expansion of the brewery business is represented by construction of buildings (8) and (9), these ranged around a separate yard east of the main brewery site. It seems likely that this separate part of the site was a mineral water manufactory. Although the brewery buildings footprint changed little towards the end of the 19th century, internal revision was clearly occurring. The bonded warehouse (36) had appeared by c1907 (sharing roof detail with the main brewery complex) and the tall brick brewery stack (35) was constructed in the 1930s.

Overall the Redruth Brewery site was arguably the largest brewery in the county and now forms a major element of Redruth's industrial archaeology.

In the later 20th century the brewery expanded to occupy neighbouring property and buildings once used by other industries. The most significant of these is the British and Foreign Safety Fuse Works founded in 1848. Fuseworks are rare and relate directly to the mining industry in Cornwall, Devon and beyond. Although many of the manufacturing buildings had been demolished before 1967, the remains of the fuseworks include Chymbla House (2), the stump of the fuseworks chimney (1), parts of a magazine (41) and a single storey building alongside Chapel St (3). The remains of this fuseworks contribute OUV to the Cornwall and West Devon Mining Landscape WHS.

A saw and bone mill established northeast of the brewery once used a leat (33) exiting from the Redruth Foundry. Sawmill buildings survived until at least 1946. There are no traces of this industry above ground as the site has been partly overbuilt by a large brewery warehouse (13) and concreted yard; remains may exist below surface.

Winklow House (11) originated as a drill hall for the Territorial Army and was built in 1937 (Joseph 2005, 47). Kimberley House (which lies outside the assessment area) and the original part of warehouse (12) were also originally part of the TA property. Winklow House was later used as an entertainment hall and later still a shop for the

brewery. Its importance lies in its architecture, a framework formed on a patented geodetic barrel.

9.4 Recommendations

9.4.1 Priority retention

Fuseworks buildings:

- Although several former buildings of the old fuseworks have been incrementally demolished in the past, it is desirable to retain and preserve the remaining structures (1), (2), (3) and (41), so that these form a more cohesive and understandable group.

Historic brewery buildings:

- Old Brewhouse (4) (all parts except part N which is a late 20th century extension disguising the original brewery façade). Part L, the unusual polygonal extension facing the old brewery yard, needs complete reconstruction from its footprint. Although added c1900, the granite kerbed loading plinth (40) adjoining the brewery yard is an interesting vernacular addition.
- Maltheuses (5) and (7). All built pre-1841 and both buildings are substantially intact including their rooflines. Malthouse (7) appears to be part of the original brewery layout on this site.

NB: Currently there is Conservation Area Consent for demolition of the following buildings on the basis of their appearing of largely modern construction and low historic value:

- Historic malthouse (5) – identified as building DD in the approved Redruth Brewery Demolition Schedule (Gabriel Design 2012), described as a '*modern block built industrial building of no historic significance*'. This building dates to Period 3: pre 1841.
- Historic malthouse (7) – identified as building Y in the approved Redruth Brewery Demolition Schedule (Gabriel Design 2012), described as a '*traditional mid 20th century part brick, part stone, warehouse*'. This building dates to Period 2: late 18th century to c1800.

9.4.2 Retention

This includes later 19th century and early 20th century buildings that could provide architectural and industrial interest if a scheme for reuse is viable:

- Building (8) is largely intact and has a rare curved roof type. Building (9) also has remains of a curved roof structure but its walls have almost entirely been replaced with modern build.
- Bonded store (36) is a building with traditional stone construction, granite dressings and slate roof. It remains intact and its generous size suggests it would be relatively simple to reuse for modern commercial purposes or sensitive conversion to domestic accommodation.

NB: Currently there is Conservation Area Consent for demolition of the following buildings on the basis of their appearing of largely modern construction and low historic value:

- Building (9) – identified as building L in the approved Redruth Brewery Demolition Schedule (Gabriel Design 2012), described in conjunction with building M as a '*modern industrial building with steel barrel truss and asbestos sheet roofing, of little historic value and in conflict with the Masterplan for the site*'. This building dates to Period 5: pre-1880. No Conservation Area consent appears to have been requested for building (8), building J in the approved Redruth Brewery Demolition Schedule (Gabriel Design 2012). This also dates to

Period 5 and would be considered of equal significance to building (9). It currently survives in more complete condition.

9.4.3 20th century buildings and features worthy of retention:

- Winklow House (11) - a very unusual patented geodetic arch building type and form of construction. No other example is known to survive in Cornwall. The building type is also probably rare nationally. If retention and *in situ* reuse proves not to be viable then it is recommended that the structure could be offered for a compatible reuse on another site
- 1950s building (19). This building echoes the interesting curved roofs of buildings (8) and (9) and is intact. Its (current) single interior space and distribution of windows suggests it could offer a number of future uses.
- Buildings (25) and (26) - these former tank housings represent architecturally interesting structures and are worth serious consideration for retention and conversion. They are also situated at the extreme south west of the site and therefore would not impact on other potential developments.
- Brewery gates (29), (37) and granite gateposts (38)

NB: Currently there is Conservation Area Consent for demolition of the following buildings on the basis of their appearing of largely modern construction and low historic value:

- Building (19) – identified as building M in the approved Redruth Brewery Demolition Schedule (Gabriel Design 2012), described in conjunction with building L as a '*modern industrial building with steel barrel truss and asbestos sheet roofing, of little historic value and in conflict with the Masterplan for the site*'. This building dates to Period 8: 1950s and is particularly significant owing to its relationship to the Wheal Silver adit and also for its curving roof, which reflects the continuity of an interesting historic architectural theme.
- Buildings (25) and (26) – identified as buildings AA and BB in the Approved Demolition Schedule (Gabriel Design 2012), described as '*modern concrete-framed buildings*'. These buildings date to Period 9: post 1967 to modern. Whilst these buildings are undeniably modern, their interesting architectural design is considered of merit for retention and reuse.

The Site Inventory (Section 12) gives further detail about the individual buildings, their architectural merit and historic value, along with recommendations regarding retention or demolition.

9.4.4 Recommendations for demolition

Demolition/removal of numerous later (and often very large) 20th century structures would open up considerable area of the former brewery site for new build, related facilities and public realm works. These buildings are all from Period 9 and include:

- Warehouse (12)
- Warehouse (13)
- Warehouse (16)
- Warehouse (17)
- Compressor house (18)
- Roofing over of yard (15)
- Filter room (20)
- Lean-to (21)
- Lean-to (22)
- Can room (23) (now reduced to foundations)
- Boiler house (24) (now reduced to foundations)
- Fermentation vessels (27) (now reduced to foundations)
- Generator houses (28)
- New Brewhouse (14) (now reduced to foundations)

Removal of some modern structures would also help to expose and highlight the older buildings:

- Infill structures at E end of the Channel (32)
- Modern blockwork structures between Chymbbla House (2) and building (3)

9.5 Recommended recording works

9.5.1 Historic building recording

To enable full understanding, all historic buildings on this site need detailed records, to supplement and update the work previously undertaken by members of the Trevithick Society (see Joseph 2005). This has not been possible during this assessment study as not all parts of buildings are currently safe to enter.

Historic building recording would need to be undertaken in advance of proposed works and adequate time factored in to allow this. Historic building recording ideally needs to be undertaken (to be equivalent to English Heritage Level 3-4, see English Heritage 2006) and therefore include:

- measured drawings (plans, external elevations, sections)
- measured internal elevations for larger buildings
- archive quality photography
- detailed descriptions and analysis

Historic building recording is recommended for the following structures, especially if demolitions (or partial demolitions for safety works) are considered:

- Chymbbla House (2)
- Fuseworks building (3)
- Magazine (41)
- The Old Brewhouse (4)
- Plinth (40)
- Malthouse (5)
- Malthouse (7)
- Building (8)
- Building (9)
- Building (10)
- Building (19)
- Winklow House (11)
- Bonded store (36)

9.5.2 Watching brief

Some building recording will need to be undertaken either as a monitoring process during initial demolition/safety works or immediately after removal of modern fabric. This is particularly important where modern (Period 9) structures have to be removed close to older buildings, or where foundations of modern structures are being taken up (see Buried Archaeology Assessment). Historic building recording work would need to be organised in liaison with the contractor's programme and reasonable time allowed in the programme to enable adequate records to be made.

10 Historic Environment setting assessment

The significance of a heritage asset derives not only from its physical presence and historic fabric but also from its setting – the surroundings in which it is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral. (English Heritage, The Setting of Heritage Assets, Revision Note 2012)

10.1 Settings Assessment

When Redruth Brewery was at its zenith during the mid-19th century it would have been a prominent and key component of the industrial landscape of the Tolgus valley to the west of Redruth. This would have been populated by mills, foundries and mining-related industry along the Tolgus stream, with the associated industrial settlement at Plain-an-Gwarry overlooking this scene from the northern valley slopes. There would have been a tangible, aesthetic and intellectual connection between the industrial workers and the working landscape they inhabited. The wealthier inhabitants of Redruth town to the east may have been appreciative of a certain removal from this scene, being set further uphill away from the Tolgus valley. Nonetheless, the noise, smells and glimpsed views of the industry taking place lower down the valley would have been a constant reminder of the source of the town's wealth and an intellectual connection would have existed all the same.

At the present-day it is hard to believe that the brewery existed as part of a wider industrial landscape. The Redruth Foundry that was situated to the north no longer stands, the redundant mill pond now a children's play park. The saw mills that sprang up along Chapel Street are long demolished and redeveloped. The Tolgus stream and its many diversions are largely culverted below ground or run above ground in disparate sections, removed from their historic context and the function they once served. The cohesion of industry along the stream's length in this part of the Tolgus valley is now lost; only the brewery site and Sara's Foundry to the northwest remain extant, but these stand isolated either side of the modern Tesco Superstore, nominally linked only by the Brewery Leat which continues to run above ground along the southwestern extent of the Tesco car park.

By the mid-19th century the brewery site physically extended up to the grounds of Penventon House to the south, built by the brewery owner at the time, John Pemberthy Magor. The 1841 Tithe map (Fig 17) and the 1855 Town map (Fig 18) show an approach to Penventon House from Little Vauxhall, with interconnecting pathways, gardens and greenhouses adjacent to the brewery site that may indicate an area of walled or kitchen gardens. Modest granite gateposts currently stand to either side of this entrance, which may have been the service approach to the house, leading past the cottages at Little Vauxhall and the stables and yards of the brewery. In contrast, the current driveway to Penventon House is situated off West End. It originally ran through a field shown on the 1841 Tithe map as Blowing House Field and was probably designed as the higher status approach to the house, creating a certain removal from the brewery and linking it to the wealth and prestige of Redruth town at that time.

A late 19th/early 20th century painting of the Redruth Brewery depicts the brewery site from Little Vauxhall (Fig 35). The bucolic landscape setting, architectural content and scale of the painting demonstrate a high degree of subjectivity, but are clearly meant to emphasise the owner's assets, wealth and status. Open fields are shown where Penventon House and the houses along West End should sit, suggesting that by this time it was fashionable or desirable to maintain a certain separation between the house and the brewery, not to mention the wider industrial scene at Plain-an-Gwarry. The approach from West End would have been intended as a display of status, permitting glimpsed views of the brewery as a visible, but not too noxious, reminder of the brewery owner's links with local industry and his principal source of wealth. The connection to the industrial hub in the Tolgus valley and views across it may therefore have become selective and partially managed by the later 19th to early 20th century. Currently, the historic relationship between Penventon House and the Redruth Brewery in the vicinity of Little Vauxhall is significantly compromised by the derelict condition of the brewery site, the deteriorating condition of the Brewery Leat and by modern redevelopment and neglect within the former grounds of Penventon House; this now obscures their former form and function with a resulting loss of boundary definition.

Today the viewpoints across the Tolgus valley and the brewery site from Redruth town remain partial and selective. From West End and Coach Lane to the south there are

occasional glimpsed vistas across the valley that afford partial views of the chimney stack only (Fig 3). Interim buildings and green planting block the majority of potential views from this direction. A glimpsed view of the brick stack is available from the top of the main driveway to Penventon Hotel (Fig 4). The brewery site is not visible from Fore Street or the wider town centre of Redruth and the approach towards the site from this direction does not reflect any association with the previously industrial core within the Tolgus valley. The brewery buildings themselves do not become visible until a good way along Chapel Street. A group of early 19th century houses stand on the south side of Chapel Street (Fig 5) and contemporary views of the brewery past these may have been partially across open fields. This aspect may have continued into the early 20th century but is now obscured by modern development at Forth Noweth.



Fig 3 Looking towards the former Brewery site from the foot of Coach Lane, looking north. The brick stack is visible between the rooftops.



Fig 4 Looking towards the brewery site from the driveway to Penventon Hotel on West End, looking north. The brick chimney stack is just visible between the trees.

The brewery site is not visible from Fore Street or the wider town centre of Redruth and the approach towards the site from this direction does not reflect any association with the previously industrial core within the Tolgus valley. The brewery buildings themselves do not become visible until a good way along Chapel Street. A group of early 19th century detached houses stand on the south side of Chapel Street (Fig 5) and once past these contemporary views of the brewery may have been more distinct and partially seen across open fields. This may have continued to be so into the early 20th century but this aspect is now obscured by modern development at Forth Noweth. A footpath still runs from Chapel Street behind the old Bonded store and Winklow House, turning south at the corner of the brewery site to skirt round it to the south. The route of the footpath from Chapel Street follows an historic right of way and is still bordered on its southern side by an historic field boundary and relict Cornish Hedge (Fig 6). When it reaches the point where the Tolgus stream emerges on its northern flank there is also a remnant of historic Cornish Hedge (Fig 7) that reflects a field boundary shown on the 1841 Tithe map (Fig 17).



Fig 5 Looking west along Chapel Street. The footpath towards the brewery site is visible at the end of a row of early 19th century housing but the brewery itself is not visible from this point.

From this direction there is some sense of the once semi-rural setting of the brewery site and the shared association with the Tolgus stream and the industry this powered in the neighbouring Tolgus valley. The enhancement of this link between the Tolgus stream, the town of Redruth and the former brewery would make many positive contributions to its setting, historically and aesthetically. The Tolgus stream remains one of the few tangible links to Redruth's industrial past and raising its profile as a key industrial asset also contributes to the OUV of the Redruth and Camborne Mining District World Heritage Site.

From the northern flank of the Tolgus valley, approaching Plain-an-Gwarry from Fore Street along Green Lane, there are also some glimpsed views of the brewery, although these are again limited to partial views of its brick chimney stack (Fig 8). It is remarkable that such an extensive site has a relatively localised setting in that it is only substantially appreciated from the lower valley slopes, from the car park at New Cut (Fig 9), for example, and the lower approaches of Plain-an-Gwarry (Fig 10). Approaching the brewery site from Roach's Row in Plain-an-Gwarry, the historic brewery buildings only come into view from its lower reaches, looking southwest over the former Redruth Foundry mill pond, now a children's play park (Fig 11). The impact of such an industrial scene during its heyday must have been striking and immediate.



Fig 6 Looking west along the footpath that runs behind the old Bonded store and Winklow House towards the former brewery site. The footpath is bounded by an historic field boundary to the south and would once have run across open fields.



Fig 7 The rear of the Bonded store from the footpath looking northeast across the Tolgus stream. A section of relict Cornish Hedge survives along its northern bank.

Approaching along Brewery Leat from the west, the brewery buildings come into view more gradually (Fig 12); originally this would have been a much fuller industrial scene, with the stables and yards at Little Vauxhall and the stables in Penventon Grounds all contributing to the complexity and bustle of industrial activity (Fig 13). Another modern view of the brewery site from the west is achieved from the A30 flyover but this would never have been a view intended by its original setting. Even today this view is fleeting due to the speed of moving traffic and once again it is the chimney stack that makes the greatest visible impact.

In summary, it is notable how localised the setting of the brewery site is and that of all the historic buildings it is the brick chimney stack that forms the constant for partial and glimpsed views within the modern townscape and within more distant views from

the west. The principal historic buildings may only be visible within relatively proximate views but where these occur they are clearly prominent within the present-day streetscape and historically they would probably have been a key focus of the industrial core at Plain-an-Gwarry.



Fig 8 looking southwest from Green Lane towards the brewery site. The view from here is only partial and largely limited to the brick chimney stack.



Fig 9 Looking southwest from the car park at New Cut. From the lower slopes of the Tolgus valley at this point the historic brewery buildings are visible between the rooftops.



Fig 10 looking southwest along Claremont Road towards the former brewery site. The brick chimney stack remains the most striking feature even within more substantial views towards the site.



Fig 11 looking southwest towards the former Redruth Brewery along Roach's Row and across the children's play park, once the mill pond of the Redruth Foundry.



Fig 12 looking east along the footpath that runs beside Brewery Leat, now alongside Tesco car park. This is a gentler view of the brewery and will be seasonally softened and partially obscured by vegetation and green planting. Stables belonging to Penventon House once stood to the south of the Brewery Leat at this point.



Fig 13 The view of the approach to the Redruth Brewery at Little Vauxhall from Chapel Street, looking southwest. Little Vauxhall Cottages are right of shot and the road continues towards the rear entrance of Penventon Hotel.

In accordance with the underlying principles of Former PPS 5 policies, now incorporated within the National Planning Policy Framework, any redevelopment of the former brewery site and in the vicinity of Little Vauxhall and Chapel Street should be careful not to further detract from the setting of the brewery site or result in greater disaggregation of the surviving industrial and heritage assets in this part of Redruth. There is a real opportunity for redevelopment of the former brewery buildings and the wider site they occupy to restore some of the key industrial components of Plain-an-

Gwarry's industrial core, principally the historic brewhouse buildings and its iconic chimney stack, the Brewery Leat and the Wheal Silver adit. The removal of unsightly modern structures from key views southwards across the brewery site towards Penventon and northwards across the brewery site towards Plain-an-Gwarry would potentially open up and restore some of the brewery's original historic landscape setting. Sympathetic planting and landscaping would afford valuable green space and soften the surrounding built landscape and help recreate some of the historic links between the brewery site and the landscaped planting and gardens of Penventon House that once stood adjacent to the south. Appropriate treatment of the historic brewhouse buildings and chimney stack, and the restoration of the above-ground historic course of the Brewery Leat, would have a positive and tangible impact on restoring the links between these key heritage assets and their relationship within both the historic and modern day streetscape of Redruth. Acting on these opportunities in such a way as to promote the appreciation of the significant heritage assets of the former brewery site would be in keeping with the NPPF and English Heritage settings guidelines and also make a positive contribution to the OUV of the wider World Heritage Site.

10.2 Recommendations

It is recommended that plans for redevelopment of the former Redruth Brewery site take advantage of the opportunity to reinforce and/or reinstate the setting of the brewery in respect of its historic topography, its industrial components and their relationship within the industrial core at Plain-an-Gwarry, and the aesthetic and intellectual relationship with the wider brewery site from within Plain-an-Gwarry and Redruth town. In particular these should include:

- Sensitive landscaping and development of the area around Chymbbla House in order to reinstate the historic context for the surviving fuseworks buildings; the stack (1), magazine (41), building (3) and Chymbbla House (2). Several structures have previously been incrementally lost in this area (see Figs 29 and 30). It is important that the scale and massing of any built components do not divide the site or further obscure the historic relationship of surviving buildings.
- Sensitive development of the area to the northeast of the historic brewhouse. The setting of the brewhouse is relatively localised, with the historic core best appreciated from nearby viewpoints within Plain-an-Gwarry to the northeast. The scale and massing of any built features in this area should therefore be careful not to obscure views towards and across the historic brewery buildings from this direction.
- The reinstatement of the historic course of Brewery Leat. Ideally this would include showing the confluence of the Tolgus stream and the Foundry Leat if this can be identified. This would help restore the historic topography of the site in relation to the natural water courses and their management as part of the industrial landscape. It would also allow opportunities to open up historic access and public rights of way across the site and improve the visual aesthetic. Additional considerations might be to restore the historic granite posts and railings alongside the footpath and define the banks of the leat through natural and sensitive planting.
- Appropriate design of access ways and roads to respect the wider topography of the site, which typically contains many curving boundaries and historic hedge lines set against the slopes of Penventon's grounds. With the reinstatement of a public footpath along the Tolgus stream the existing perimeter footpath would become redundant and could be reincorporated into the brewery site. This would allow the surviving historic walling along the western curtilage to be reinstated within the context of the brewery site and would also open up a greater area for

redevelopment. Currently there is a vehicular accessway around the southwest of the brewery site and this could also be retained.

- Sensitive and appropriate planting within and around the brewery site to respect and reinforce its relationship with Penventon House and its original semi-rural context. As some of the approaches to the brewery site from the east and west follow historic boundary lines and relict Cornish hedge lines there is an opportunity for planting and landscaping within and around the brewery site to emphasise this historic context.
- Note; the plot of land immediately south of the brewery site formerly contained the walled gardens of Penventon House. It currently lies neglected and future opportunity might allow the absorption of this area into the development of the Redruth Brewery site. Sensitive treatment of this area could help restore the historic context and relationship between Redruth Brewery and the former Penventon House.

11 How the assessment informs the proposed development

A collaborative account of how this assessment informs the proposed development is presented in Appendix 3. From the point of view of the assessment of buried archaeology potential and the standing historic buildings the following guiding principles and statements of significance should be applied.

11.1 Guiding principles

The historic environment impact assessment for the former Redruth Brewery site has been undertaken in consideration of the following guiding principles:

- Assessment of the survival, condition and significance of the historic buildings associated with the late 18th to the late 20th century Redruth Brewery and the mid-19th to the early 20th century British and Foreign Safety Fuseworks. In addition to these has been the assessment of Winklow House, a mid-20th century patented geodetic design building originally constructed for use as a Drill Hall and TA centre and later absorbed into the expanded 20th century brewery site. The aim has been to determine recommendations for the retention of the historic fabric of these buildings within the wider brewery site and how these could potentially be integrated within current development plans.
- The recommendations given in this report are based on detailed evidence drawn from the Assessment process. There is also an existing Conservation Area Consent for the demolition of a number of brewery buildings on the basis of their being intrinsically modern and of low historic value (see Redruth Brewery Demolition Schedule by Gabriel Design 2012). There is considerable argument for these having a much greater historic significance than was stated here.
- Investigation of historic buildings and features associated with the former Redruth Brewery, the British and Foreign Safety Fuseworks and the saw and bone mill that are now lost. The aims have been to determine a greater understanding of these and their relationship to the surviving historic fabric, primarily through map and documentary-based research and site walkover. The findings of this assessment have been used to identify key areas of buried archaeological potential and recommendations for their evaluation throughout the programme of redevelopment.
- Assessment of the historic topography and setting of the former brewery site in order to identify how industrial elements of the site respected and related to

each other and how they integrated with, or were respected by, historic development within the Tolgus valley. This includes its housing provision, industry and patterns of historic land division; how the brewery related to Penventon House and its designed landscape; how views across and towards the brewery site would historically have been experienced and perceived and how this determined the relationship between the historic fabric of the brewery site and the communities within Redruth at both an aesthetic and intellectual level.

- Investigation into the historic water management of the site, to include provision of a water source for the brewing processes and the later aerated water factory, provision of water power to the mid-19th century saw and bone mill and modification of the Tolgus stream to power industrial sites along this part of the Tolgus valley. There is also documented existence of an historic drainage scheme to alleviate flooding and provide a storm surge capacity within the site.

11.2 Statements of Significance

Redruth Brewery developed to become the largest brewery in the county. Its relocation to Plain-an-Gwarry c1792 brought it prominence as one of the key industrial components within the Tolgus valley and the wider industrial heritage of Redruth. The historic brewery buildings are presently much encroached upon by later 20th century additions but the historic fabric of the core brewery buildings remains essentially sound. The industrial design and architectural detail of these buildings merits restoration and sympathetic redevelopment and would reward this by providing a strong visual aesthetic to this part of Plain-an-Gwarry.

The British and Foreign Safety Fuseworks was a relatively short-lived site, although it saw much expansion during the early 20th century prior to the First World War. In its day it reflected new patents in the development of mining safety standards and as such is a significant component of the Camborne and Redruth Mining District within the Cornwall and West Devon Mining Landscape World Heritage Site status. Currently, its surviving historic buildings, the base of the fuseworks stack, the magazine and Chymbra House, stand somewhat isolated from each other and their historic context is lost. Any evidence for the expansion of the fuseworks into the earlier saw and bone mill site has also disappeared; although there is significant potential for associated building remains to survive below ground.

The historic water management of the brewery site, principally the course of the Wheal Silver adit, the managed courses of the Tolgus stream where it forms the Foundry and Brewery Leats, and the man-made drainage system, if and where it survives, has influenced the historic topography of the brewery site and the pattern of buildings and development. These aspects greatly inform the historic industrial context of the brewery site within Plain-an-Gwarry and the way in which man-made water management during the industrial years of the 18th and 19th centuries was integrated within historic patterns of land organisation. The significance of these elements contributes to the wider World Heritage Site statement of OUV, the protective remit of the Plain-an-Gwarry Conservation Area, the high value historic importance of the former Redruth Brewery and the industrial heritage of the Tolgus valley.

11.3 Recommendations

Specific recommendations have been included in Sections 8.1, 9.4, 10.2 and the Inventory Section 12. Further guidance will follow in Appendix 3 to this report to provide specific design guidance based on the full content of this report.

12 Site inventory

NB Site numbers 1-33 are based on those given in the Trevithick Society's report on Redruth Brewery (Joseph 2005).

Recommendations for retention of historic structures are made in a few instances. These will need to be analysed in terms of commercial cost/benefit/feasibility, and also bear in mind the irreplaceable nature of historic assets.

1 Chimney

SW 69471 42309

A circular tapered stone chimney stack was built as part of the British and Foreign Safety Fuseworks. First mapped 1855 and associated with a narrow building (most likely a boiler house) bordering the northern edge of the site.

It was photographed when several metres tall in 2005, the stack is now only a stump a few courses high.

Significance

Although the stack is now in poor condition, along with Chymbla House it is one of the few remaining parts of the former fuseworks. It is therefore an important part of the mining heritage of Redruth and helps to provide Outstanding Universal Value to the WHS.

Recommendations

The stump of the chimney is currently displayed in a grassed area adjoining a road junction. Consolidate masonry using conservation approved methods. Landscaping undertaken as part of any redevelopment of this area should be sympathetic to reinstating the relationship to Chymbla House and the historic context of the surviving safety fuseworks buildings.

2 Chymbla House

SW 69491 42291

A two-storey rectangular range built as part of the British and Foreign Safety Fuseworks in 1848. It was first mapped in 1855. Sometime after the fuseworks closed in the early 20th century the building became part of a knitwear factory. Later still it was converted to offices for the brewery.

The northern hipped roof end is an extension, although the early mapping indicates the same building footprint, suggesting the northern end may have originally been single storey. A porch on the west side is a late 20th century addition.

Significance

Along with the remains of the stack Chymbla House is one of the few remaining elements of the former fuseworks. It is therefore an important part of the mining heritage of Redruth and helps to provide OUV to the WHS.

Recommendations

The building is now roofless and the northern part severely fire-damaged. The interior is unsafe to enter and has not been examined as part of this study. Despite this damage the exterior walls of the building appear sound and the shell of the structure represents an historic building which would benefit from sensitive refurbishment and conversion to a new use.

3 Buildings attached to E side of Chymbla House

SW 69518 42287

A range of single-storey buildings alongside the road on the northeast side of the site are first mapped in the 1870s as part of a yard associated with a bone and sawmills. By c1907 the British and Foreign Safety Fuse works had expanded eastwards into this area.

In plan the buildings follow a shallow angle, bordering the adjoining road. They are predominantly stone-built, under an artificial slate roof. In more recent decades the older range has been joined to Chymbbla House by construction of a rendered block-built two-storey building and a single-storey porch. Since abandonment, this later part has been severely damaged during an arson attack. The interior does not appear safe to enter and has not been examined.

The eastern end of the older range has also been slightly extended with a block-built section. This part can be seen to have been built above a stone yard wall on the road side. The eastern end of the building (facing the site entrance) has also been embellished with sawn slate masonry.

Significance

The historic link with the fuseworks means that these buildings help to provide OUV to the WHS

Recommendations

It is strongly recommended to retain the original stone masonry structure, as a remaining part of the former fuseworks complex. The later 20th century blockwork structures are not of historic interest and their careful demolition and removal will enhance visibility of the older building, and also the east side of Chymbbla House.

If retention of this building is not considered viable then a full record should be made in advance of demolition (see Section 9.5).

4 The Old Brewhouse

Centred at SW 69456 42241

The prominent group of buildings known as the Old Brewhouse forms the historic core of Redruth Brewery. The industry was founded here in 1792 after the proprietors moved the business from an earlier site at Sparnon Gate.

The brewery is first depicted on the OS Surveyors' drawings c1809. On this small scale map it appears to have an L-shaped plan but this illustration is likely to be schematic, probably representing the Old Brewhouse and neighbouring malthouse(s) to its southwest. Its buildings are shown more clearly on the Tithe map (1841, Fig 17) and on detailed maps from 1855 (Figs 18 to 21) onwards.

The Old Brewhouse now comprises five parallel rooflines/ranges fronting onto a small yard to the northwest. To its southwest side is another pair of historic buildings which were formerly malthouses (Buildings 5 and 7). The Old Brewhouse is largely separated from these by a passageway referred to as the Channel (Feature 6).

It is clear that the Old Brewhouse has undergone several phases of development and an attempt to identify the chronology was undertaken by the Trevithick Society (Joseph 2005). Since that study the brewery has been partially stripped of later buildings and equipment, has lain in abandonment for nearly a decade and was unfortunately severely damaged by an arson attack in November 2011. As a result of these factors different features have become visible and this assessment has modified the chronological interpretation previously offered.

The Trevithick Society's interpretation plan of the brewhouse has conveniently divided areas of the building into lettered spaces (Fig 33), which represented its perceived relative chronology. These letters are also reused in the following summary description.

It is clear that the present footprint of the brewhouse was already largely in place by the time of the Tithe mapping, i.e. that any early phases of expansion had already occurred by that date. Another factor that is clear from historic mapping is the relationship of the brewhouse with the Channel. The southwestern walls of the brewhouse respect the line of the Channel by curving around it. This strongly suggests that the Channel was a pre-existing feature which could not be encroached upon. When the malthouse (5) was built to the southwest this also respected the Channel to maintain its regular width.

The principal parts of the early brewery would likely to have included a 'brewery tower' i.e. a taller built space to contain a malt mill, mash tun and copper on descending levels, and an adjoining larger building to house cooling apparatus and fermenting vats. Nearby there would have been a malthouse, plus other buildings for cask and bottle preparation, malt storage, offices and so on. At Redruth the base of the brewery tower appears to be represented by the thick walled elements of parts A and B. The upper floors of the original tower are no longer present however, as expansion of the brewery necessitated inclusion of larger later coppers, the bases of which are now within a modern steel framed structure southwest of the Channel. The upper floors of parts B and C, now the tallest brewhouse buildings, were later converted to offices.

The early cooling and vat house appears to have been in part D, which has relatively thick walls throughout. It also has a noticeable architectural symmetry to its northwest front, containing a granite pillared porch to its original ground floor entrance, with a window to each side. This pattern of openings is also visible on the first floor, where the central window has later been converted to a doorway. Its symmetrical architecture is also visible in the southeast end where there are arched openings on the first floor. Historic maps (1855) also show a central doorway reached by steps at this end. Within the building and along the northeast long wall are a series of stone corbels which presumably carried the original first floor principal beams. Additional support to the corbels was later provided by brick pilasters at ground floor level. Although much of the northeast wall is covered with later mortars there are indications of blocked arched openings which would have lit the first floor.

Parts C, M and L appear to have been added in succession, from southeast to northwest. Although the polygonal end of L is shown as a semi-circle when depicted in 1855, it is likely to have always been polygonal in plan (simplifications on surveys are frequently seen on Tithe maps, when representing similar structures such as horse-engine houses attached to barns). It is interesting to note the way part M wraps around the front of part D; this is echoed on the north side of D where abutted by a wall of part F.

It is interesting that the fermenting process was until recently still carried on in part D, with the burnt out frames of the vats still present at the time of the assessment. The building has clearly been refitted, probably in several episodes, the latest scheme having c1900 Adlam's cast-iron piers with additional supporting steelwork.

It seems likely that the ground floor of part D was a racking (cask and bottle filling) area with the arched openings into part C used for cask storage.

Parts E, F, G, H, I, J and K have been built in a series of schemes and refits. The front wall of part F and the southeast facing wall of parts I and E were originally single-storey. This is evidenced by rougher dressed jamb-stones to the windows at ground floor level. Higher up, these walls have windows with jamb-stones of grey granite with neater dressing. Windows at this level also have buff brick shallow arches with granite springing stones. On the southeast facing wall, the lower windows have also been fitted with these arches, probably replacing wooden lintels under an earlier lower roofline.

There is also abundant evidence of alteration to the northeast facing wall of part G. The earlier lower windows can be seen to span both parts G and K, and two blocked openings in the base of K retain their granite lintels. In the remainder of this elevation

the windows have been rebuilt higher up, with the lintels reused where possible. The higher level of windows have brick arches like those in the front and rear walls. Part G has therefore also been raised to two full storeys.

Part K was originally three-storey (or two-storey plus a mezzanine) and overlooked the former gateway of the yard. A chamfered west corner provided additional clearance for drays entering and leaving the brewery site.

Part H also had a higher roofline, as clearly evidenced by a line of quoins abutted by the higher part of G. The Trevithick Society report suggests this part contained a malt kiln. This appears likely, given that parts K, G and H are labelled as a malthouse on the 1855 survey. The only support for this feature is a late 19th century illustration of the brewery, and given the large amount of artistic licence used in this illustration, it cannot be entirely relied upon.

Sometime after parts F, G and J were raised to two-storey, this space was again reconfigured under new rooflines supported at the front and rear ends with buff brick pediments pierced with arches. This alteration also stretched into parts H, E and I with new gables built on the southeast facing exterior walls. St Day bricks are incorporated in these gables. The latest roof structure was based upon shallow pitched steel trusses, presumably with wooden purlins and rafters, and covered with sized slate. Pre-fire photos indicate the roof apex had spaced crested ridge tiles. Inside this area, it appears that the arrangement of cast-iron piers was altered to suit the new roofs and new timber floors and supporting steelwork inserted. It appears that granite paving used throughout most of this space was introduced at this time. The burnt out remains of the roof and parts of the floors are still extant, leaving a twisted skeleton of rusting steel and much fallen charred debris.

Part C was also raised by another storey with buff brickwork, probably at the same time as the later alterations to E, F, G, H, I and J.

Part N is a later 20th century addition and obscures the original entrance to part D.

Significance

The Old Brewhouse is part of the original brewery complex on the site and itself demonstrates chronological and technical development through the 19th and earlier 20th centuries. The former brewery complex is also a key component of the industrial archaeology of Redruth.

Recommendations

The outline development proposal for the Old Brewhouse is retention of the historic structure, redevelopment and enhancement as part of the Kresen Kernow archive centre. Detailed proposals will result from a Initial Heritage Report and Conservation Plan being separately prepared by Alan Baxter Associates together with a site master plan.

This assessment strongly recommends retention of key features of the Old Brewhouse including:

- the external stone and brick masonry walls.
- the added brick gables with their arch and broken pediment detail (as these represent the final form of the historic brewery with an attempt at a classical look, especially when viewed from the adjacent yards).
- original window openings and doorways.
- internal masonry walls and original openings, most of which are structurally necessary to the remainder of the building.
- the lines of decorative cast-iron pillars, especially those which were made by the Redruth Foundry.

- extensive and fine squared granite paving within Parts F, G and J. This includes gutters and drains/grilles (note: much of this was covered with debris at the time of the assessment fieldwork).
- corbels within Part D.
- the surviving granite pillar at the former entrance into Part D. Another partner pillar is likely to be hidden within the adjoining later masonry stair structure.

It also recommended that the modern Part N is demolished, as this obscures the historic entrance to the Brewhouse.

5 Malthouse

SW 69424 42226

A linear range situated southwest of the Old Brewhouse is first mapped in 1841. It runs approximately parallel to the side of the Brewhouse but is separated from it by a passage known as the Channel (6).

Its roofline at its western end appears to be original although now covered with corrugated asbestos sheeting. At the apex on this part is a clerestory ventilator. The eastern end of the building has been raised in height and the interior heavily adapted for beer storage tanks, which are still *in situ*.

Its walls of slate stone masonry have granite dressings for openings and quoins; two levels of windows are visible adjacent to the Channel and on the southwest side. Part of the northeast wall (facing the yard) has been removed and replaced with wide doorways/openings. The west end has been chamfered off and replaced with blockwork.

Historic maps (1841, 1855, c1880 and c1907) show the site of a malt kiln that formed an L shaped extension (projecting southwest) at the western end. This was labelled as a 'Kiln House' in 1855. The kiln had disappeared before 1946 and its site has since been partly reused for Building 26. Two small arched openings for flues are still visible where the former kiln once attached to the remainder of the malthouse. The western end of the surviving range has also been heavily trimmed back with a chamfered block-work wall added. Prior to this the north corner of the malthouse adjoined structures bordering the entrance yard (see Fig 18).

Significance

This building forms a key part of the historic brewery. The orientation of this range is interesting, as it is not built parallel to another large early malthouse (7) and forms a very narrow gap at its eastern end. As the malthouse runs parallel to the Old Brewhouse and respects the line of the Channel it appears to be an infill structure, although was present from an early stage of the brewery's development.

Recommendations

This building has been included in the Conservation Area Consent to demolish, based on the mistaken observation that the structure was built in the 1930s.

This assessment strongly recommends retaining, conserving and reusing this building as part of the Kresen Kernow initiative. The majority of the original wall and roof structure is extant and the large spaces inside suggest it would be relatively easy to convert for modern uses.

6 The Channel

SW 69425 42233 to SW 69459 42215

The Channel is the name given to a passageway between the Old Brewhouse (4) and malthouse (5). This is of a regular width (c2.5m) and is respected by the slightly curving line of structures forming the southwest side of the Old Brewhouse. It therefore appears to be an older feature than the brewery itself. The original function of the Channel is not known; there are hints from the OS c1880 map that it may have been a watercourse (perhaps draining Wheal Silver adit, site 31). It is clear from the historic mapping that the Channel also provided communication between yards at the front and rear of the brewery.

At its eastern end, the Channel has been bridged over by a vaulted stone masonry structure, forming an extension to the housing for coppers within the core of the brewery.

Significance

The Channel is a significant part of the brewery layout.

Recommendations

Any proposed redevelopment adjoining the brewery should respect the line of the Channel.

Investigation works should be carried out to determine the substructure of the Channel, especially drainage (dye) tests from Wheal Silver adit, to find out where the adit water joins the Tolgus stream.

7 Malthouse

SW 69436 42206

A long rectangular range appears on the southwest side of the historic brewery complex and is shown on maps from 1841 onwards. The orientation of this building aligns with the core structures of the Old Brewhouse (4). It is recorded as a 'Malt House' on the 1855 map and once had a kiln and a malt store at its eastern end.

Practically all the original masonry exterior walls survive. Like the other malthouse (5) this structure also has dressed granite quoins and granite jambs to its openings. Lintels of openings on the southwest wall have been replaced with concrete, most likely originally wood. The middle part of the building retains its original roof structure, and until abandonment retained its slate roof. The former kiln site at the east end has been converted to contain tanks or other modern facilities (removed upon abandonment) and is now roofless.

The prominent brewery chimney stack (site 35) also emerges from the roof of this building. According to the Trevithick Society report the range contained the brewery's Lancashire boilers with flues vented by this chimney.

Significance

A probable original building of the brewery complex that was later modified to become the principal boilerhouse. The later use of the building is therefore directly associated with the brewery chimney.

Recommendations

This building has been included in the Conservation Area Consent to demolish, based on the mistaken observation that the structure was built in the 1950s.

This assessment strongly recommends retaining, conserving and reusing this building as part of the Kresen Kernow initiative. The original walls and roof structure are extant

and the large spaces inside suggest it would be relatively easy to convert for modern uses.

8 Store building on NE side of former yard

SW 69488 42211

Two parallel buildings built on the north and south sides of a yard were first mapped in c1880. This complex was built on the site of a reservoir depicted here in 1855. The Trevithick Society report suggests these structures were built after 1873 when the reservoir and Wheal Silver adit were no longer required for the brewery.

Building 8 forms the northeast side of the former yard. It is a rectangular two-storey structure, heavily modernised on its ground floor with remaining walls covered with block-work and shuttered concrete. Much original walling has been removed to create larger openings into the building to the north but traces of some original brick arched openings are still visible.

The original wooden floor (with X pattern bracing between joists) appears to be relatively complete.

On the upper floor the building retains its original stone masonry walls and wide shallow arched openings. The roof structure is very unusual, being a curved profile steel framework. The curved roof is visible outside; this is certainly of some antiquity, being visible on the 1946 aerial photo and is likely to be original to the building.

Significance

Although not part of the original brewery, this building represents part of a later 19th century expansion of the site. The original purpose of the building is not known with certainty although the upper floor served as a store in more recent years. Given the date of its construction it is possibly associated with creation of an aerated water works, which would have been functionally separate from the brewery.

The curved roof design is very unusual for this early date in a Cornish context.

Recommendations

Preservation of this building is strongly recommended as it would help to retain some of the historic site topography, especially given the parallel historic course of the Tolgus stream immediately to the northeast.

Preservation of the unusual curved roof is also desirable.

As the ground floor area has already been heavily modernised and contains a single large space with openings to one side, it appears this building would be readily convertible for modern uses, such as a row of shops with lofts/facilities above.

9 Former store building on SW side of former yard

SW 69480 42179

Two parallel buildings built on the north and south sides of a yard were first mapped in c1880. This complex was built on the site of a reservoir depicted here in 1855. Joseph (2005) suggests these structures were built after 1873 when the reservoir and Wheal Silver adit were no longer required for the brewery.

Building 9 is on the southwest side of the former yard. Most of the walling of this building has been replaced by blockwork on the southwest side and concrete piers on the northeast side. Its curved roofline remains but has been altered by addition of a timber structure covered with artificial slates.

Water from Wheal Silver adit (site 31) flows from an arch in the southwest wall of Building 9.

Significance

Although not part of the original brewery, this building represents part of a later 19th century expansion of the site. Given the date of its construction it is possibly associated with creation of an aerated water works, which would have been functionally separate from the brewery.

Very little of the historic structure survives, the only significant part being the remains of the unusual curved roof.

Recommendations

If the curved roof is to be preserved then the remainder of the structure could almost entirely be replaced with new build, designed to echo Building 8.

The water flow from Wheal Silver adit is very active and this historic feature should be incorporated into new design.

10 Lean-to on SE side of former yard

SW 69496 42188

The yard wall containing buildings 8 and 9 was supplemented with a narrow, probable lean-to structure, built before c1907. An early 20th century extension to this is visible on the RAF 1946 vertical aerial photograph (Fig 23).

The lean-to is no longer visible and has been replaced by a modern covering of the yard (Building 15). Parts of the stone masonry yard wall survive.

Significance

Low.

Recommendations

None.

11 Winklow House

SW 69568 42213

Winklow House is a very unusual semi-circular (geodetic barrel) framed building, covered externally with corrugated asbestos sheeting and internally lined. The principal lighting is by way of rooflights mounted in the top of the barrel structure. Its two ends are built of blockwork and the front elevation is pierced with a single round window. More windows/vents are incorporated in the south wall. A pair of short rendered blockwork wings forms a frontage looking onto Chapel Street.

This building was constructed here in 1937 for the Territorial Army (Joseph 2005) and is first shown on an RAF 1946 aerial photo of the site.

Joseph (2005) provides a more detailed description and history; further information should be sought there.

Significance

High. A very rare building type.

Recommendations

The preferred option from this assessment is to retain the building on its present site, and sensitively refurbish it, subject to viability. The large single interior space suggests it could be converted for a variety of uses (however, this is unlikely to be residential).

If preservation *in situ* is not deemed feasible, then it is possible to dismantle this building for re-erection elsewhere. Other buildings of this type, for example, have been successfully used as aircraft hangars. However if the building is to be removed from its current site, probably the only salvageable parts are the framework itself, the rooflights and some of the interior wooden cladding, as the exterior covering, the two blockwork ends, as well as the floor, would need to be entirely replaced. The potential for re-use off site would be subject to viability and structural feasibility as well.

12 Warehouse attached to Winklow House

SW 69543 42208

A former single-storey warehouse is attached to the southwest side (rear) of Wicklow House. This is built partly of concrete blockwork and the remainder of corrugated sheeting on a light framework. In recent years there has been arson damage to this part of the structure.

The blockwork part of the building is first shown on a 1946 aerial photo and originally seems to have been a store associated with the Territorial Army property.

Significance

Low. This building is not of historic interest.

Recommendations

Demolition/removal of this building will allow better views of Wicklow House and also would help to open up the banks of the Tolgus stream which runs along the south side of this building.

13 Former canning line

SW 69499 42231

A canning line was formerly housed in a big depot-like building occupying a large space in the middle of the expanded brewery site. It is constructed as a wide double gabled structure of concrete piers, steelwork and blockwork, covered with corrugated cladding/sheeting. Its floor level is stepped above the surrounding ground level.

The building was constructed post-1967 and has been attached to the north-east side of Building 8. Its site at least partially overlies the historic course of the Tolgus stream and its culverted diversion further north, and also reoccupies the site of a saw and bone mill that was in this area in the 19th century.

Significance

Low. This building is not of historic interest.

Recommendations

Demolition/removal of this building will allow better views across the site towards the Old Brewhouse, Building 8 and other historic elements of the site. Removal will also allow its considerable area to be reused for new build structures and open up access to the historic line of the Tolgus stream.

14 New Brewhouse

SW 69472 42225

The New Brewhouse was built after 1967 as one of the final expansions of the brewery facilities. It occupied a rectangular space between the Old Brewhouse, Building 8, and

the canning line in Building 13. Aerial photos show that it was a tall structure, partly masking its adjacent older buildings.

The building was constructed of cladding on a steelwork frame and was in the process of demolition when the brewery site was examined by members of the Trevithick Society (Joseph 2005). The site now exists as a circular concrete blockwork foundation with a tiled top (the former base for one of the brewery vats), plus a pile of block debris.

Significance

Low. The remains of this building are not of historic interest.

Recommendations

Removal of the foundations/remains will free up space for new design.

15 Former yard

SW 69481 42196

The c1880 OS map shows a yard between Buildings 8 and 9. This was created in the space of a former reservoir (shown 1855) which was filled from Wheal Silver adit. Although a part of the east wall of the former yard remains, the remainder has been built over with a piers structure of concrete and steelwork, roofed with corrugated sheeting and a floor of concrete and cement screed.

Significance

Low. This building is not of historic interest.

Recommendations

Careful removal of the modern structure will enable better views of historic buildings and free up space for new design. The Wheal Silver adit still flows through this area (currently spilling across the floor and apparently draining northwesterly towards the Channel). New design in this area will need to take account of this adit, preferably by displaying the water channel in an open public space.

16 Concrete blockwork warehouse

SW 69516 42178

A concrete blockwork warehouse/depot building occupies a large space in the southeastern part of the brewery site. This was constructed post-1946 but before 1967.

Significance

Low. This building is not of historic interest.

Recommendations

Removal of the building will free up considerable space for new design, as well as enable better views of historic structures.

17 Warehouse

SW 69510 42158

A former warehouse built as a steel framed structure covered with corrugated asbestos sheets is extant in the southeastern part of the brewery site. This was built post-1967.

Significance

Low. This building is not of historic interest.

Recommendations

Removal of this building will free up additional space for new design, as well as enable better views of historic structures.

18 Compressor house

SW 69527 42155

A former compressor house built of blockwork is extant in the southeastern part of the brewery site.

Significance

Low. This building is not of historic interest.

Recommendations

Removal of the building will free up additional space for new design, as well as enable better views of historic structures.

19 1950s building

SW 69479 42168

A long rectangular building with a steel framed and distinctive curved roof was added to the brewery site probably in the 1950s. It does not appear on the 1946 RAF aerial photo but was built before 1967.

This building is built parallel to Building 9 and partly shares its southwest wall, except that the steelwork piers of the 1950s structure rise above the adjacent roofline and windows are incorporated higher up along this side. A line of windows also illuminates the northwest end.

The inclusion of a curved roof structure echoes and provides some continuity of the earlier designs of Buildings 8 and 9.

It is to be noted that the Wheal Silver adit runs in a deep culvert beneath this building, to emerge from an arched opening in building 9.

Since abandonment of the brewery this building has become 'unofficially' popular with the local youth, who use the smooth cement screed floor to practice skateboarding. The interior walls of the building are currently an improvised 'arthouse' and make a and colourful social statement.

Significance

Although this building is not considered to be historic, it is very distinctive and (unusually) remains relatively intact. Its curved roof echoes the earlier adjoining buildings (8) and (9).

Recommendations

Although demolition and replacement with modern build may be considered a simpler solution it is the strong preference of this study to retain and convert this structure for modern uses.

20 Filter room

SW 69477 42159

The southernmost building on the brewery site is a large rectangular concrete blockwork structure with a tiled interior. This had a loading bay in its eastern end, probably also providing access to neighbouring warehouses 16 and 17. This is referred

to as the Filter Room in the Trevithick Society report (Joseph 2009). The building is modern, not recorded on the 1967 plan.

Significance

Low. This building is not of historic interest.

Recommendations

Demolition/removal of this building will free up additional space for new design, as well as enable better views of historic structures.

21 Outshut attached to Building 20

SW 69462 42169

A small lean-to/outshut is attached to the north corner of Building 20. This is in very poor condition.

Significance

Low. This building is not of historic interest.

Recommendations

Demolition/removal of this building will free up additional space for new design, as well as enable better views of historic structures.

22 Outshut attached to Building 19

SW 69462 42177

A small corrugated lean-to/outshut is attached to the west end of Building 20. This is in poor condition.

Significance

Low. This building is not of historic interest.

Recommendations

Demolition/removal will free up additional space for new design, as well as enable better views of historic structures.

23 Foundation

SW 69445 42184

A T-shaped outline of a former can room was recorded by the Trevithick Society (Joseph 2005, Fig 8).

This feature survives as a concrete foundation, the superstructure all having been removed.

Significance

Low. This structure is not of historic interest.

Recommendations

Removal of the foundation will free up additional space for new design, as well as enable better views of neighbouring historic structures.

Note that ground levels alongside the southwest wall of former malthouse (7) have been considerably built up, probably when this structure and Foundation 24 were built here.

24 Foundation

SW 69429 42195

A rectangular building outline southwest of malthouse 7 was recorded by the Trevithick Society as a former boilerhouse (Joseph 2005, Fig 8). It survives as a concrete plinth with several partially infilled rectangular slots. The superstructure and contents of the building have been entirely removed.

Significance

Low. This building is not of historic interest.

Recommendations

Removal of the foundation will free up additional space for new design, as well as enable better views of neighbouring historic structures.

Note that ground levels alongside the southwest wall of former malthouse (7) have been considerably built up, probably when this structure and Foundation 24 were built here.

25 Conditioning room

SW 69413 42204

The southwesternmost feature on the brewery site is a rectangular concrete structure, now surviving one storey high. A series of aerial photographs (visible on GoogleEarth) show that until recent scrapping of machinery/contents had taken place, this structure was about three storeys high, and contained eight tall upright cylindrical tanks beneath a roofline. It is referred to as a conditioning room by Joseph (2005).

This feature is a relatively modern addition, post-dating the 1967 plan.

Significance

Low, at least in historic terms. But in its current form, and especially with the large circular holes in the roof left by the former tanks and also by the pillars separating the bays inside, it presents a very interesting architectural space.

Recommendations

The building is included within the Conservation Area Consent for demolition (identified there as Building AA).

This assessment strongly suggests that this building should be retained and creatively reused, perhaps as an exhibition space or refreshment area as part of Kresen Kernow.

26 Fermentation vessels building

SW 69409 42219

A similar structure to Building 25 that contained six tanks – see descriptive notes above.

Significance

Low, at least in historic terms. But in its current form, and especially with the large circular holes in the roof left by the former tanks and also by the pillars and windows separating the bays inside, like building 25, it presents a very interesting architectural space.

Recommendations

The building is included within the Conservation Area Consent for demolition (identified there as Building BB).

This assessment strongly suggests that this building should be retained and creatively reused, perhaps as an exhibition space or refreshment area as part of Kresen Kernow.

27 Tanks foundation

SW 69433 42251

A substantial concrete foundation adjoins the northwest side of the Old Brewhouse and occupies part of the space within the former brewery front yard. This was the site of modern fermenting vessels, which had already been largely removed when the Trevithick Society undertook their fieldwork (Joseph 2005).

The installation of these tanks post-dates 1967 and blocked the original brewery yard entrance. Their installation unfortunately then blocked views of the Old Brewhouse and may be associated with demolition of buildings bordering the yard. It is likely that the present yard wall and gates (29) were built at this time.

Significance

Low. Not of historic interest.

Recommendations

Removal of this foundation would re-expose this part of the yard and create better views of the historic buildings.

28 Generator houses

SW 69479 42262

A range of single-storey rendered concrete blockwork buildings were constructed northeast of the Old Brewhouse after 1967. This range is constructed, most likely on a raft foundation, above the leat and the Tolgus stream, possibly where these watercourses join.

Significance

Low. Not of historic interest.

Recommendations

Demolition and removal of this range will free up additional space for new build on the site. Removal will also enable the historic courses of the leat and stream to be accessed.

29 Gates and walls

SW 69416 42250

The present stone masonry wall into the northwest brewery yard is a relatively recent construction, clearly post-dating the 1967 building plan and replacing a range of narrow buildings which were once sited alongside the yard.

The wide iron gates are of high quality and elaborate. They match another pair of gates alongside Wicklow House (37).

Significance

Medium. These are part of the modern fabric of the site and form part of the present site boundary.

Recommendations

The gates are worthy of *in situ* preservation and their renovation would restore a formal entrance to the brewery site.

30 Tolgus stream

SW 69474 42258 to SW 69460 42260 and SW 69526 42204 to SW 69579 42186

The Tolgus stream has always flowed through the brewery site and its course is currently exposed north of the Old Brewhouse and to the south of Winklow House.

Much of the watercourse is now culverted and historic maps show its earlier route.

Significance

High. The stream (along with a leat from a former foundry site on the opposite side of the road) form important aspects of the topography and historic development of the site. The water management associated with the wider historic industry within Plain-an-Gwarry is a key World Heritage Site (WHS) component and significantly contributes to its OUV.

Recommendations

One of the intentions of the brewery masterplanning process is to re-expose the former course of the Tolgus stream and develop this as part of public realm works from the town centre to Tolgus.

It is recommended to (archaeologically) trace the original route of the Tolgus stream (as visible on the 1855 and c1880 maps), particularly after suggested demolition of the large modern building (13) and generator houses (28).

31 Adit (Wheal Silver)

SW 69484 42172

The choice of site for Redruth Brewery was originally influenced by the availability of a reliable water supply; the source chosen was a long disused adit from Wheal Silver.

The adit outflow is mapped in 1855 when it flowed into a sub-rectangular reservoir east of the brewery.

From 1873 another water supply was brought into the brewery from Trewirgie tenement, and this probably diminished the importance of the supply from Wheal Silver. The reservoir was discontinued and the area converted to a yard bordered by two large buildings (8) and (9).

This adit is still extant underground but its whereabouts is unknown. A steady flow of water now passes along a brick-lined tunnel beneath Building 19, then through an archway to emerge in Building 9. A concrete tank built into the floor on the northwest side of Building 9 may have acted as a small cistern.

Significance

High. The water supply was a key factor in the origins and development of the brewery.

The association of the water supply with mining increases the OUV of the brewery site.

Recommendations

Drainage for the adit will need to be incorporated into future designs for the brewery site. It is strongly recommended by this assessment that the watercourse is properly displayed within public realm works.

32 Modern infill structures

SW 69463 42210

Modern rendered blockwork buildings have been constructed alongside The Channel at the south corner of the Old Brewhouse (4). These connect between the Old Brewhouse and the covered yard built over a former reservoir (15). The modern corrugated roof of 15 also extends over this area.

These were probably built by 1967 as the plan shows this area roofed over. Earlier mapping (c1880 and c1907) show that there was formerly an open space between the Old Brewhouse and 15. At this time the space appears to have been a small rear yard.

Significance

Low. The modern structures are not of historic interest.

Recommendations

Demolition/careful removal of these structures will enable better visibility of the neighbouring historic buildings.

33 Leat from former Redruth Foundry

SW 69515 42280 to SW 69482 42262

A leat running from Pednandrea Mine and through the west side of Redruth was routed to a reservoir serving a waterwheel at Redruth Foundry on the north side of Chapel Street/Tolgus Hill (the foundry site is now occupied by Redruth Community Centre).

On the present brewery site the watercourse powered a saw and bone mill (mapped in 1855 and c1880) before emptying via a tailrace and joining the Tolgus stream.

There is now little to see on the surface as the leat has largely been culverted.

Significance

High. Although not associated with the early brewery, the leat has a strong association with other industries which operated in this area, many of which have now disappeared. Together with the historic course of the main Tolgus stream this leat contributes towards the wider World Heritage Site's statement of OUV.

Recommendations

Trace the course of the leat and any related structures using archaeological investigative techniques (see Section 8 Buried Archaeology Assessment).

It may be possible using careful design to re-expose the course of this leat, or at least parts of it.

34 Hedge SW of Bonded warehouse

SW 69576 42189

Part of a Cornish hedge is extant to the southwest of Bonded warehouse (36), where it runs alongside part of the Tolgus stream.

The hedge is the surviving part of a boundary recorded on the Tithe Map (1841) and shown on the 1880 and c1907 OS editions.

Significance

Low.

Recommendations

Retain if possible.

35 Brewery chimney stack

SW 69448 42200

From a distance, the chimney stack is the most visual feature of the former brewery. Joseph (2005) records that it is c24m high and is still in very good condition.

The stack is generally not recorded on early maps as it was not a separate structure and emerges from the roofline of a former malthouse (7).

Earlier boilers were incorporated inside building (7). In later years the stack vented flues from an external boilerhouse (24).

Significance

High. The settings impact assessment has shown that the primary views across and towards the historic brewery site from various points within the modern townscape are typically limited to or dominated by the chimney stack, reinforcing its significance to the historic industrial landscape setting.

Recommendations

Retain and maintain as part of the preserved site.

36 Bonded warehouse

SW 69593 42197

A Bonded Store is first depicted and labelled on the c1907 map. As its name suggests, it was probably used as a depot for higher duty value drinks (spirits, fortified wines etc.) for distribution to the brewery's pub chain.

The warehouse is a stone masonry building of two single-storey ranges, with a porch on the north (road) side. Built predominantly of slate masonry it has dressed granite quoins, window lintels and jambs. It has slate roofs with spaced crested clay ridge tiles, apex ventilators and finials. The surroundings of the building were until recently used as a yard and employee car park. This has a perimeter high security fence (angled concrete posts supporting chain link and barbed wire) and tall double gates.

Access was not possible during this assessment so the interior has not been viewed. This is one of the very few brewery buildings that remains intact (and apparently still secure).

Significance

Medium to High, due to its fine condition. Its construction and detail indicate that it is contemporary with the c1900 development of the Old Brewhouse (4).

Recommendations

The large proportions of this building appear to offer strong potential for reuse, either for commercial purposes or perhaps conversion to dwellings.

If the building is not considered viable for reuse, then it should be recorded in advance of removal (see 9.5).

37 Gates adjoining Winklow house

SW 69562 42233

A pair of decorative iron gates is extant immediately west of Winklow House. These are of similar pattern to those fronting the northwest side of the brewery (29).

Significance

Medium. These are part of the modern fabric of the site and form part of the present site boundary.

Recommendations

The gates are worthy of preservation and their renovation would restore a formal entrance to the brewery site.

38 Gateposts on N side of site

SW 69547 42251 and SW 69538 42260

Two granite gateposts are extant on the north side of the brewery site. They may have been parts of two different gateways, the partner stones having disappeared.

Significance

Low.

Recommendations

These should be retained and reused if possible, to frame a new/reconfigured site entrance.

39 Remains of former buildings

SW 69386 42233

Single walls of three stone-built buildings survive alongside a footpath on the west side of the site. These buildings are shown on the Tithe Map (1841) and were still mapped in 1967. Partial demolition of the buildings appears may have been associated with later developments at the brewery, including the construction and access to buildings 25 and 26.

The southernmost wall has three blocked window openings, in what would have been the west wall of the building overlooking the adjoining Penventon north driveway. This building was recorded as an office in 1855.

The middle wall has a line of blocked joist sockets, indicating that it had more than one storey. Its lower wall face was lime-washed.

A small shallow arch survives in the northernmost wall, perhaps the remains of a fireplace.

Significance

Low.

Recommendations

The above-ground remains of these buildings lie outside the project area. It is possible that some traces may still survive below surface inside the property boundary.

40 Loading plinth

SW 69442 42247

A substantial granite kerbed loading plinth is extant in front of the Old Brewhouse. This feature is first mapped by the OS c1907. It was presumably added to enable loading or unloading from the brewery yard.

Significance

Medium to high. It represents a late 19th or very early 20th century development of the brewery structures and is likely to have been added when the internal layout of the brewhouse was altered.

Recommendations

A quality feature that should be preserved *in situ*.

41 Building SW of Chymbra House

SW 69465 42275

The overgrown and much reduced remains of a small square rubble stone building are extant to the southwest of Chymbra House. It is labelled as part of the British and Foreign Safety Fuse works c1880 and is shown with greater clarity when mapped c1907. The later map shows a double wall, suggesting this building was a small magazine.

Significance

High. This is a relatively rare building type, especially in a semi-urban context (magazines are commonly found associated with mines and quarries). The fuseworks site contributes OUV to Redruth.

Recommendations

The remains of this building should be conserved and displayed as part of the fuseworks.

13 References

13.1 Primary sources

Cornwall County Council 2005 aerial mapping of Cornwall.

Joel Gascoyne's 1699 Map of Cornwall

Martyn's 1748 Map of Cornwall

Ordnance Survey, 1809, *1 inch mapping* First Edition (licensed digital copy at HE)

Ordnance Survey Drawing, 1809, Robert Dawson (online copy held at British Library)

Ordnance Survey, c1880. *25 Inch Map* First Edition (licensed digital copy at HE)

Ordnance Survey, c1907. *25 Inch Map* Second Edition (licensed digital copy at HE)

Ordnance Survey, 2014. *Mastermap Digital Mapping*

Painting of Redruth Brewery, late 19th/early 20th century

Symons and Son, *A Plan of the Town of Redruth*, 1855 (held at CRO X44/1)

Tithe Map and Apportionment, c1840. *Parish of Redruth* (microfiche copy at HE)

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http://www.cornishmining.org.uk/sites/default/files/Cornwall_and_West_Devon_Mining_Landscape_World_Heritage_Site_Management_Plan_2013-2018.pdf

<http://www.english-heritage.org.uk/publications/conservation-principles-sustainable-management-historic-environment/conservationprinciplespoliciesguidanceapr08web.pdf>

<http://www.english-heritage.org.uk/publications/setting-heritage-assets/setting-heritage-assets.pdf>

<http://www.english-heritage.org.uk/publications/understanding-place-principles-practice/understanding-place-haa.pdf>

<http://www.heritagegateway.org.uk/gateway/> English Heritage's online database of Sites and Monuments Records, and Listed Buildings

<http://whc.unesco.org/uploads/events/documents/event-992-5.pdf>

<http://www.cornwallandislesofscillylep.com/sep.html>

14 Project archive

The HE project number is **146345**

The project's documentary, photographic and drawn archive is housed at the offices of Historic Environment, Cornwall Council, Fal Building, County Hall, Treyew Road, Truro, TR1 3AY. The contents of this archive are as listed below:

1. A project file containing site records and notes, project correspondence and administration.
2. Digital photographs stored in the directory R:\Historic Environment (Images)\SITES.Q-T\Sites R\Redruth Brewery historic impact assessment 146345
3. English Heritage/ADS OASIS online reference: cornwall2-175906

This report text is held in digital form as: G:\TWE\Waste & Env\Strat Waste & Land\Historic Environment\Projects\Sites\Sites R\Redruth Brewery IA\Report\146345 Redruth Brewery Historic Impact Report Second Draft.docx.



Fig 14 Extract from Gascoyne's 1699 map of Cornwall. The approximate location of the Redruth Brewery site is circled in red.



Fig 15 Extract from Martyn's 1748 map of Cornwall. The approximate location of the Redruth Brewery site is circled in red.



Fig 16 Extract from the OS First Edition One Inch Map c1809. Redruth Brewery is circled in red.



Fig 17 Extract from the Redruth 1841 Tithe map. The extent of the current Redruth Brewery site is outlined in red.



Fig 18 Extract from the 1855 Town map of Redruth by Symons and Sons showing the Redruth Brewery (reproduced with permission from Cornwall Record Office, reference X44/1).

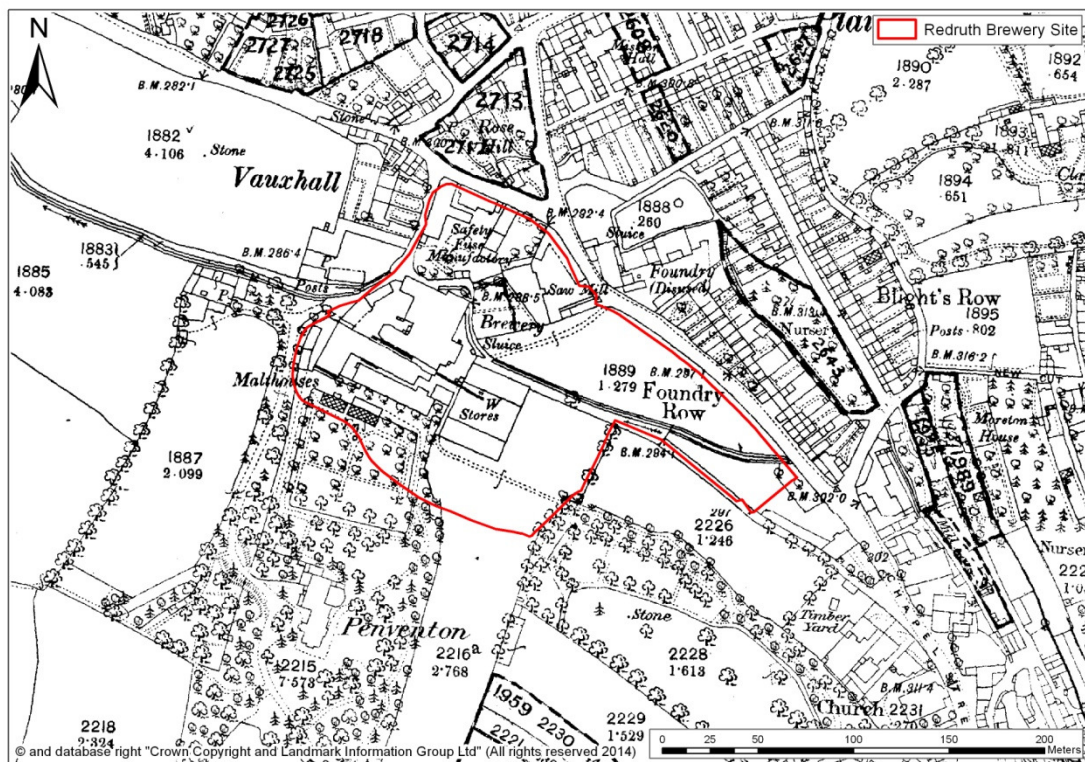


Fig 19 First Edition of the Ordnance Survey 25 Inch Map, c1880. The extent of the current Redruth Brewery site is outlined in red.

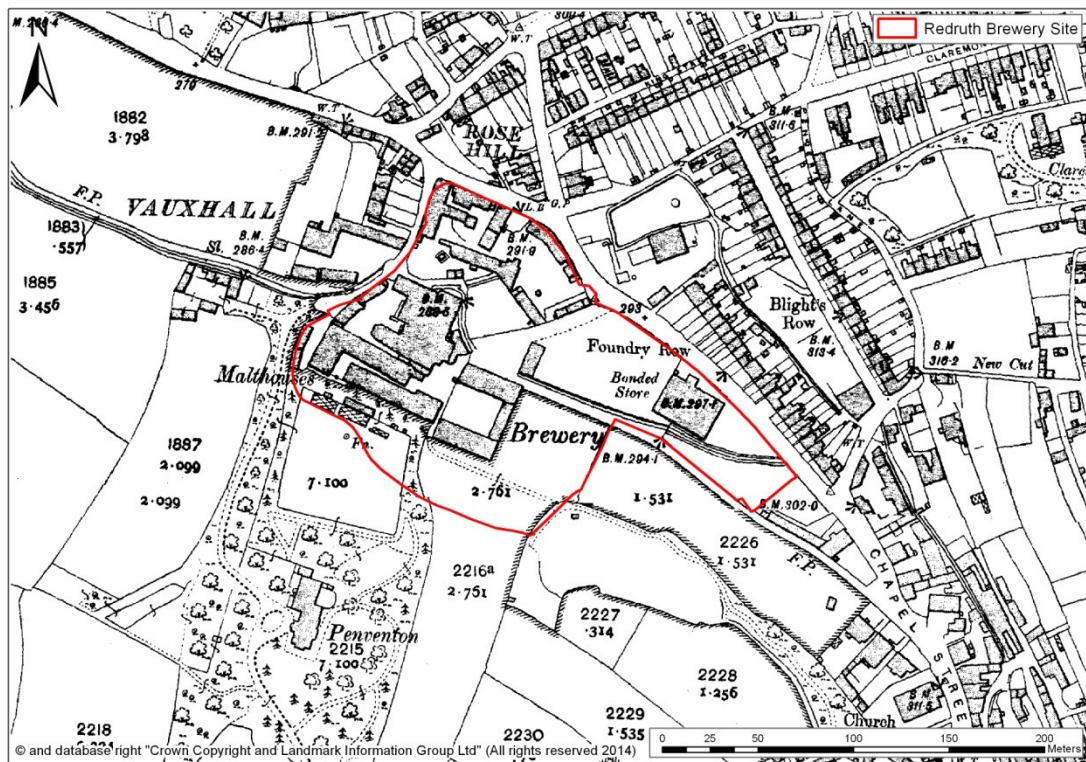


Fig 20 Second Edition of the Ordnance Survey 25 Inch Map, c1907. The extent of the current Redruth Brewery site is outlined in red.



Fig 21 Extract from a 1974 hand drawn copy of 1967 Ordnance Survey map showing the Redruth Brewery site (reproduced with permission from Cornwall Record Office, reference uncat, RB collection).

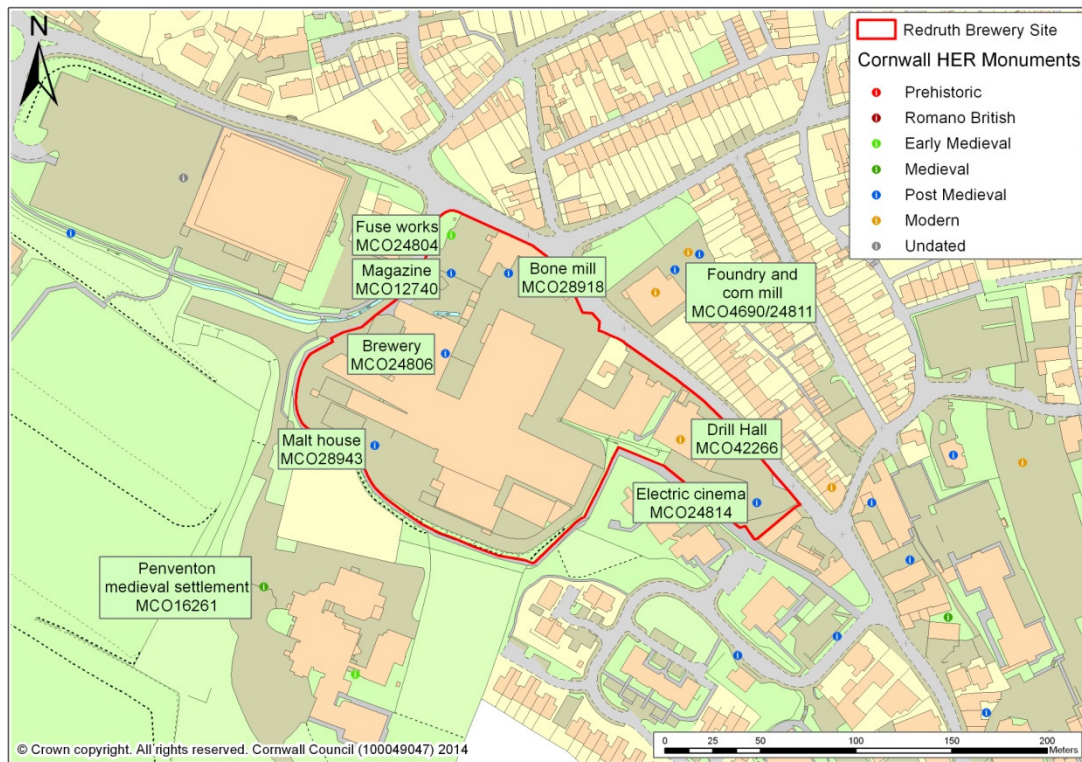


Fig 22 Cornwall Historic Environment Record monuments in the vicinity of the Redruth Brewery site.



Fig 23 RAF 1946 vertical aerial photograph showing the Redruth Brewery site. © Cornwall Council

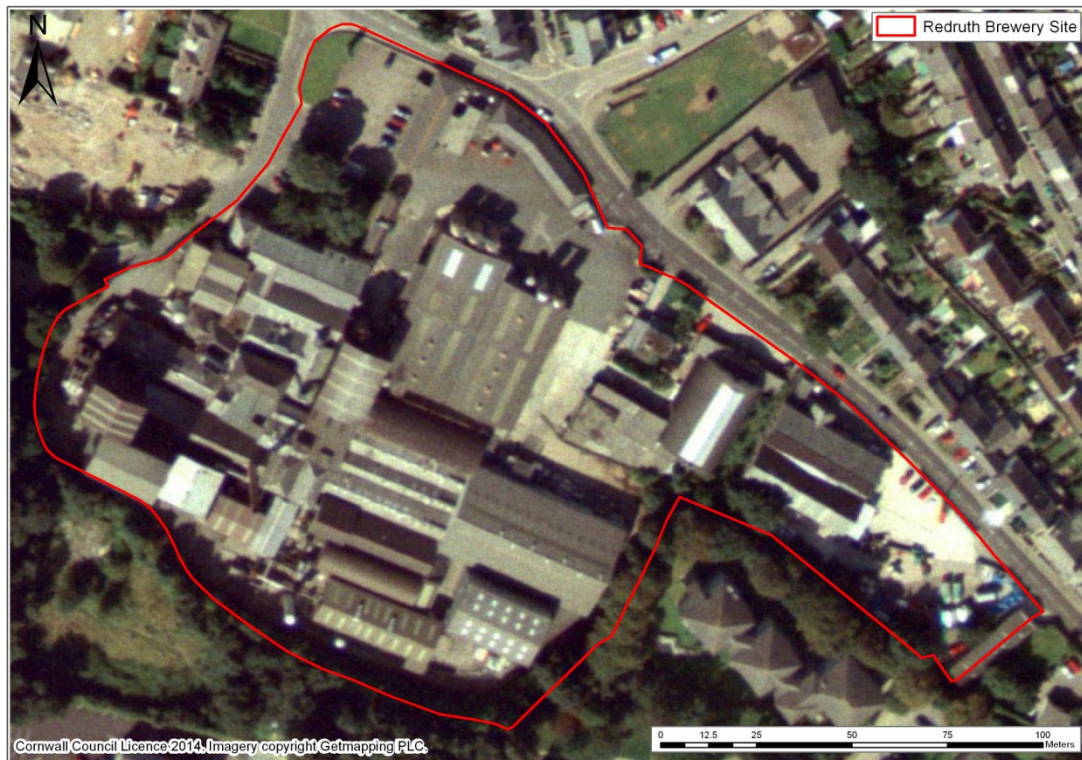


Fig 24 Vertical aerial photograph of 2000 showing the Redruth Brewery site. © Getmapping 2014

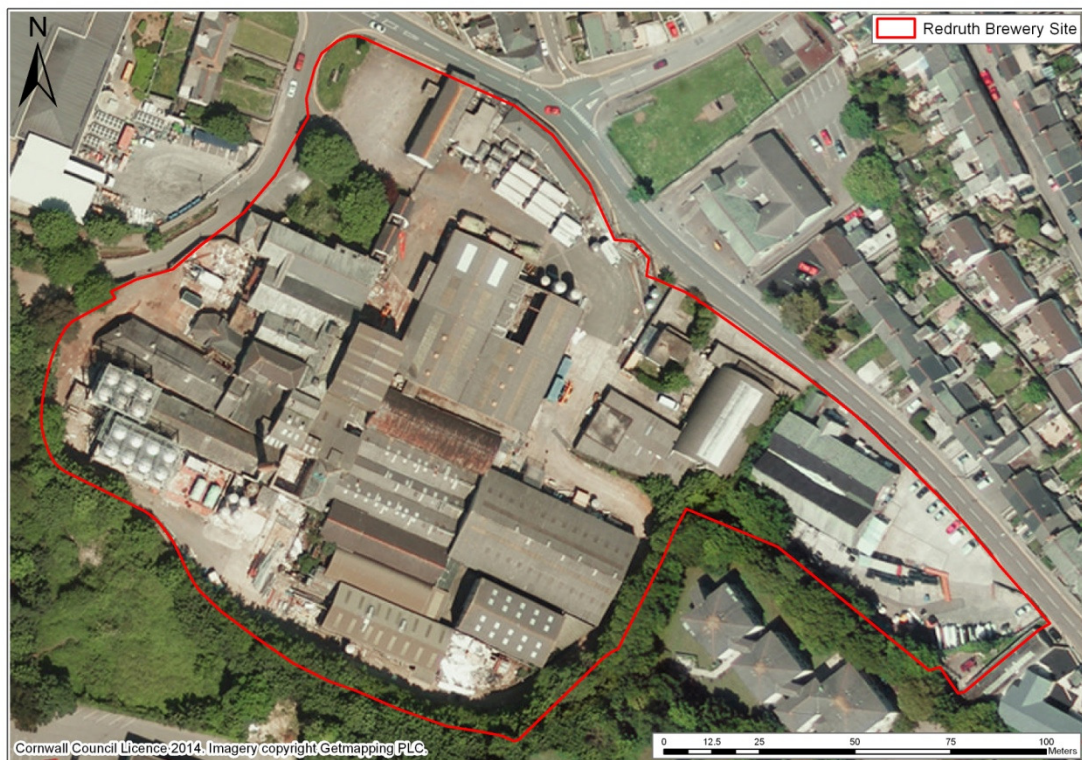


Fig 25 Vertical aerial photograph of 2005 showing the Redruth Brewery site. © Getmapping 2014

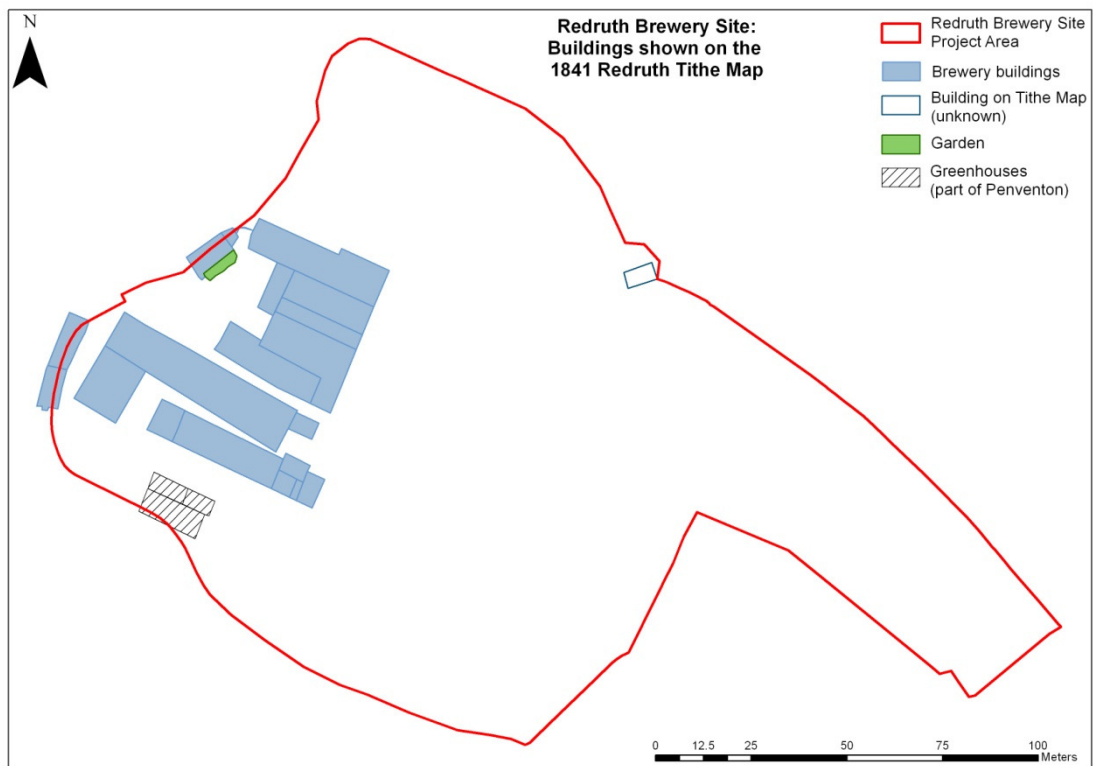


Fig 26 Phase map showing the extent of the Redruth Brewery as shown on the 1841 Redruth Tithe map

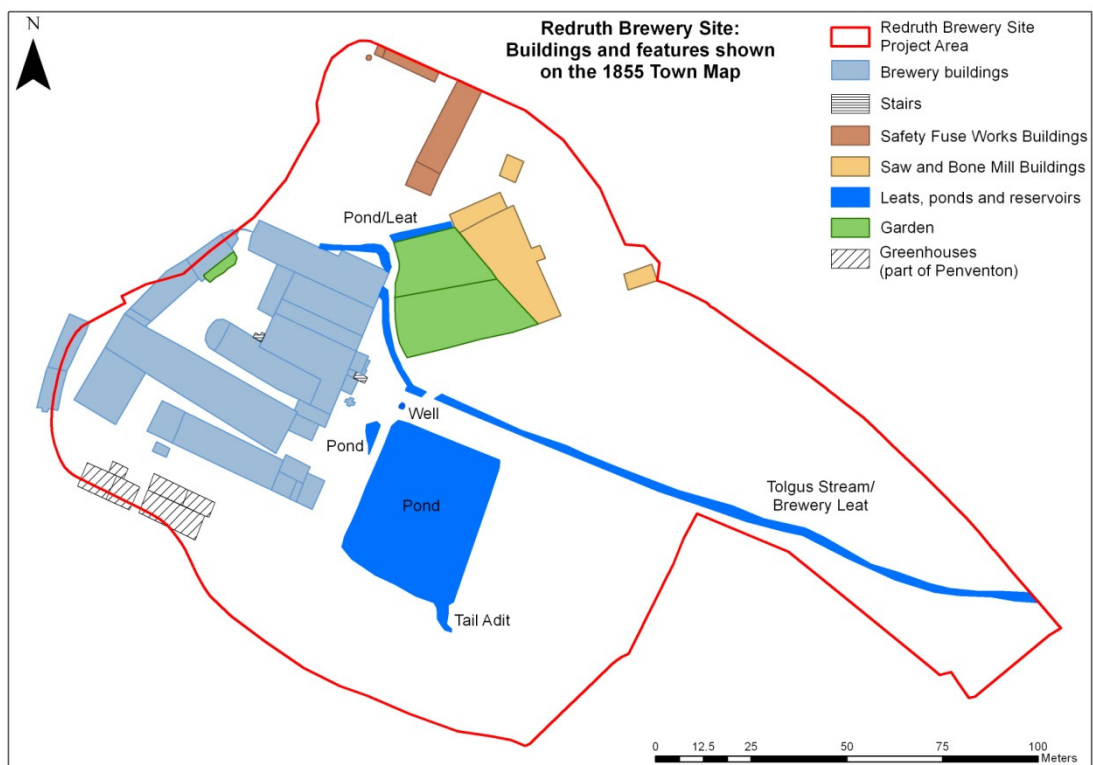


Fig 27 Phase map showing the extent of the Redruth Brewery as shown on the 1855 Redruth Town map produced by Symons and Sons (CRO X44/1).

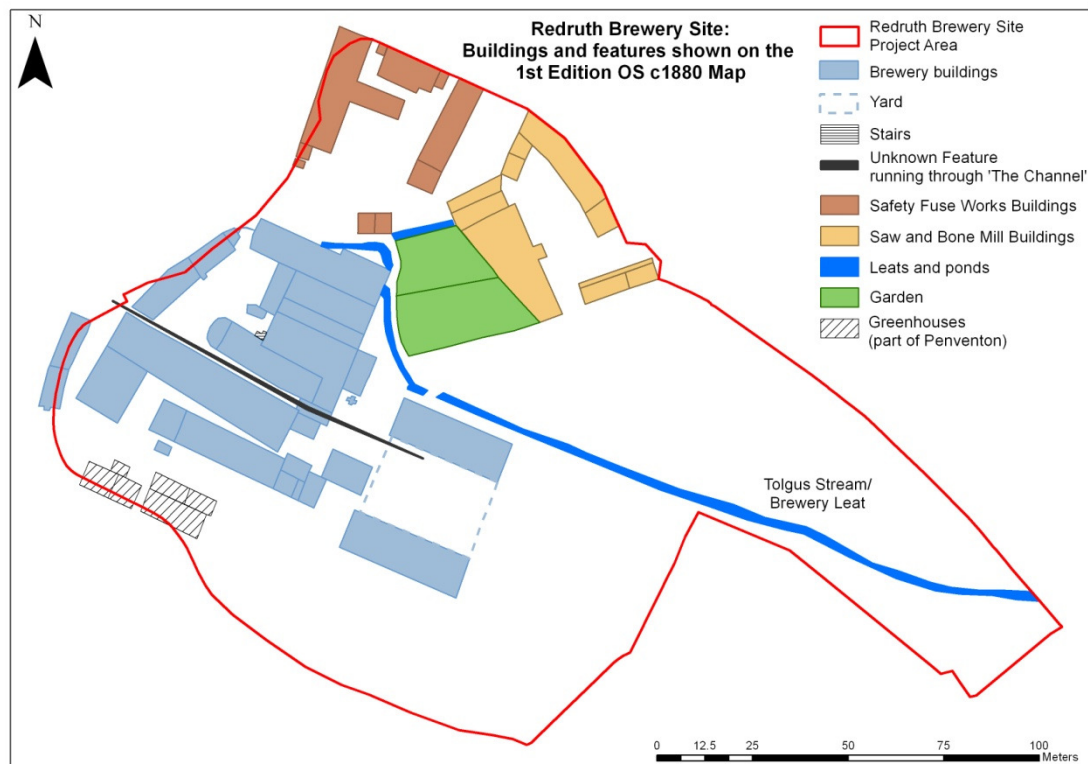


Fig 28 Phase map showing the extent of the Redruth Brewery as shown on the First Edition of the Ordnance Survey 25 Inch Map, c1880.

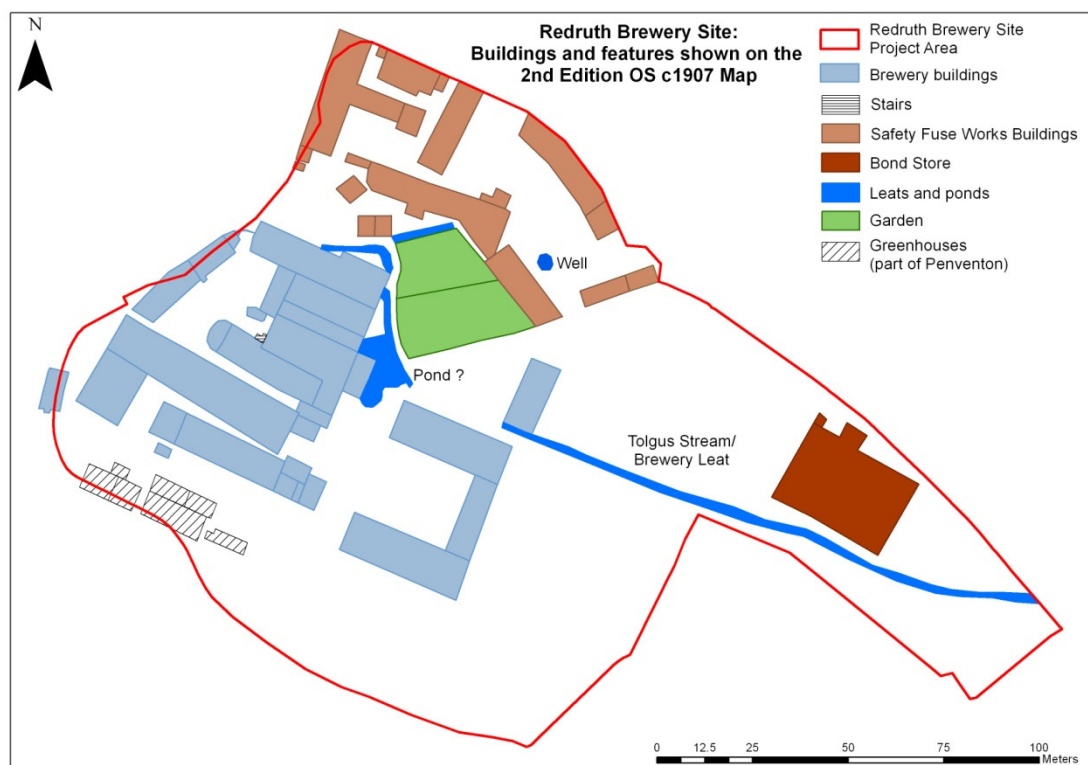


Fig 29 Phase map showing the extent of the Redruth Brewery as shown on the Second Edition of the Ordnance Survey 25 Inch Map, c1907.



Fig 30 Phase map showing the extent of the Redruth Brewery as shown on a reproduced 1974 drawing of the 1967 Ordnance Survey Map of, part of the Redruth Brewery records held by CRO (reference uncat RB collection).

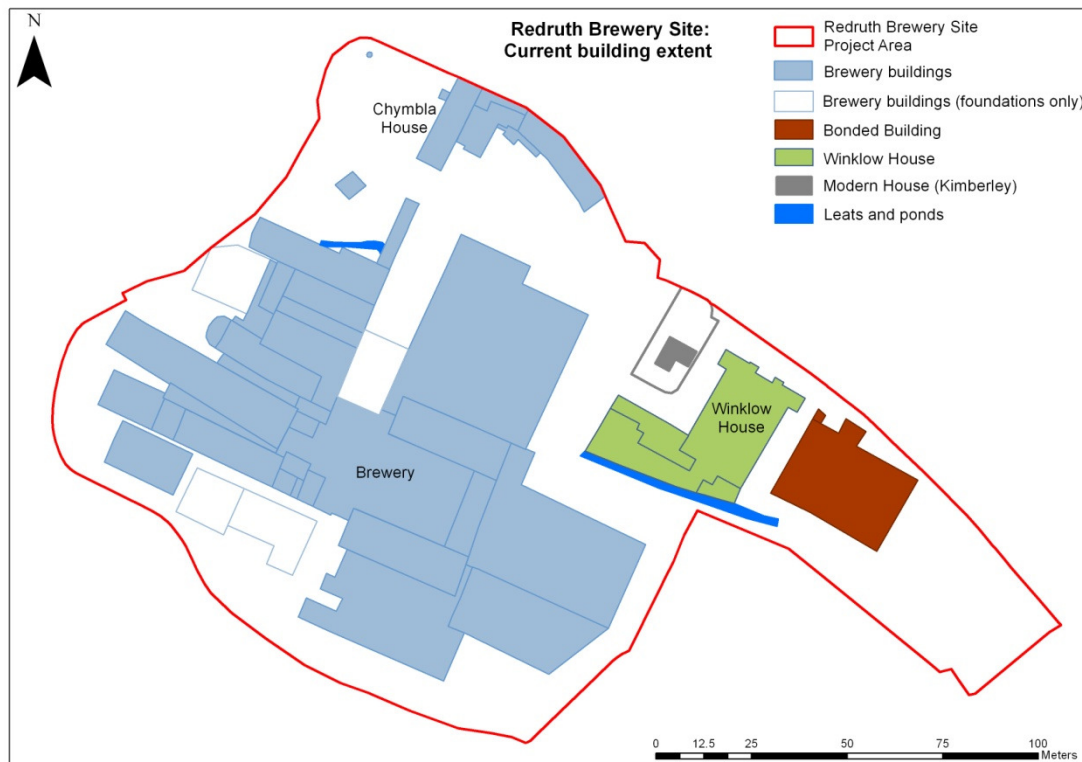


Fig 31 Phase map showing the extent of the Redruth Brewery as shown on the Ordnance Survey Mastermap of 2007; buildings currently demolished to foundation level are shown in outline

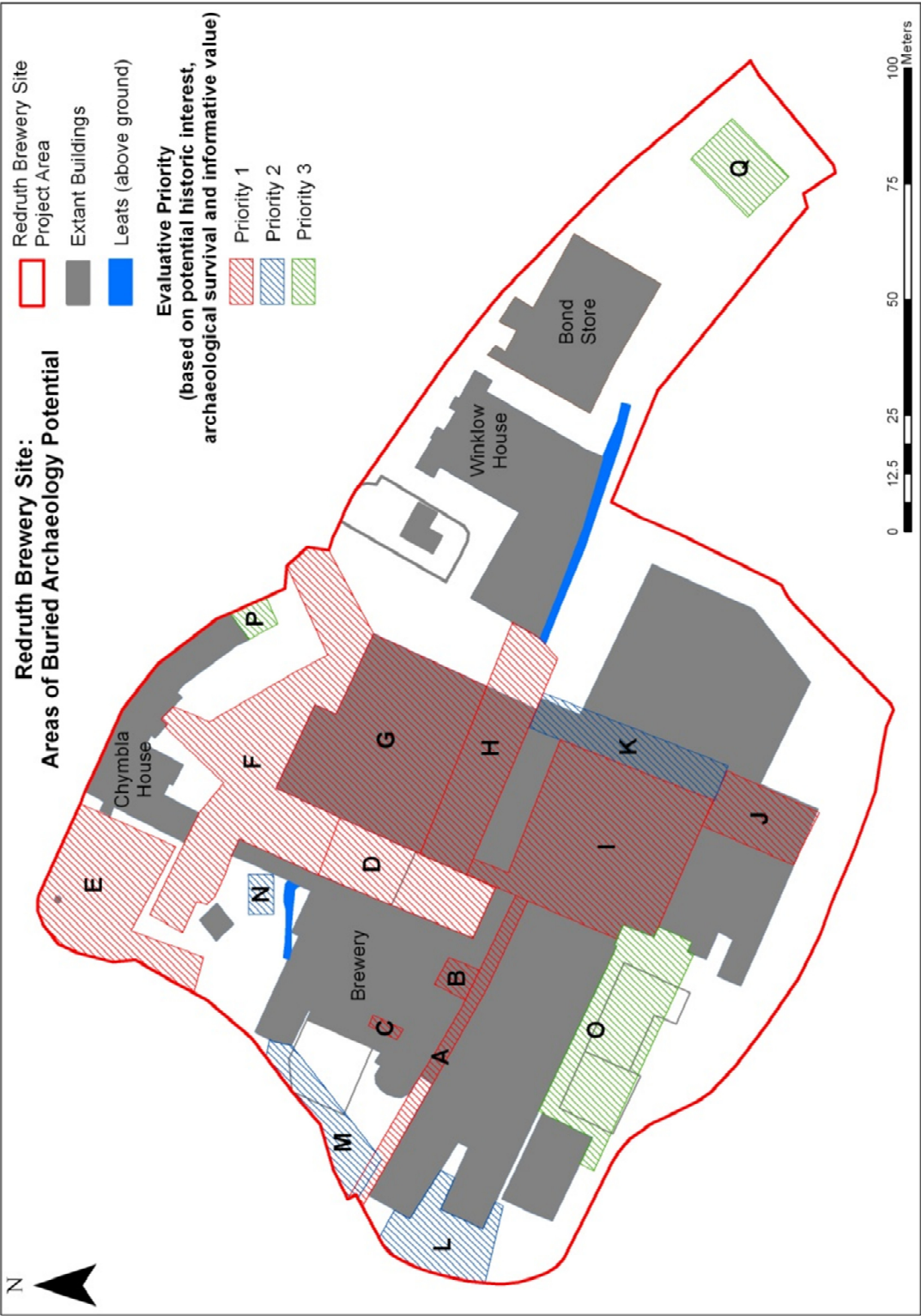


Fig 32 Map showing the areas within the Redruth Brewery site identified as having potential for buried archaeological remains

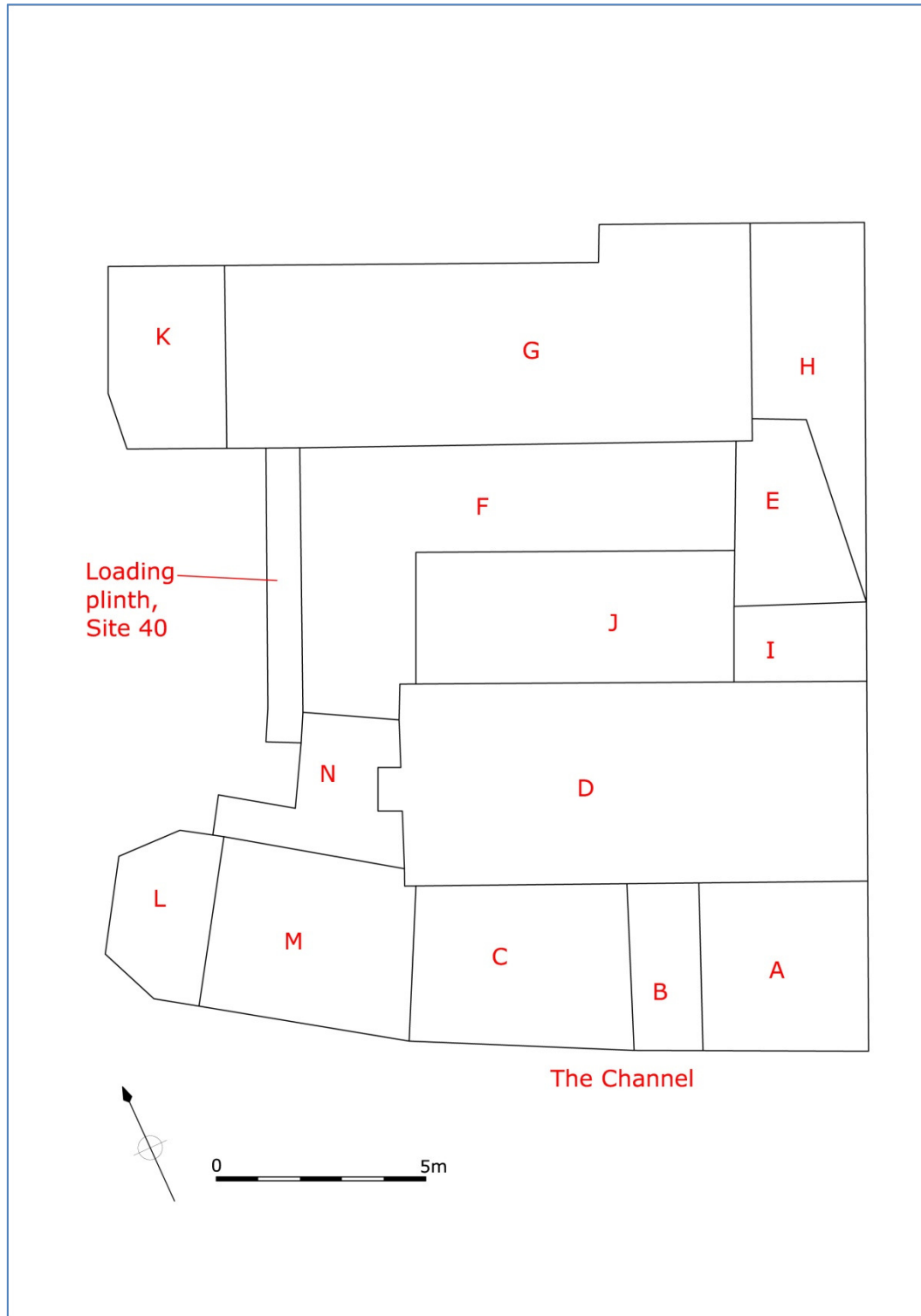


Fig 33 Plan of the Old Brewhouse (4), showing divisions on the ground floor, reflecting the Trevithick Society's interpretation of the building sequence.

Note that the chronology has been modified during the present study.

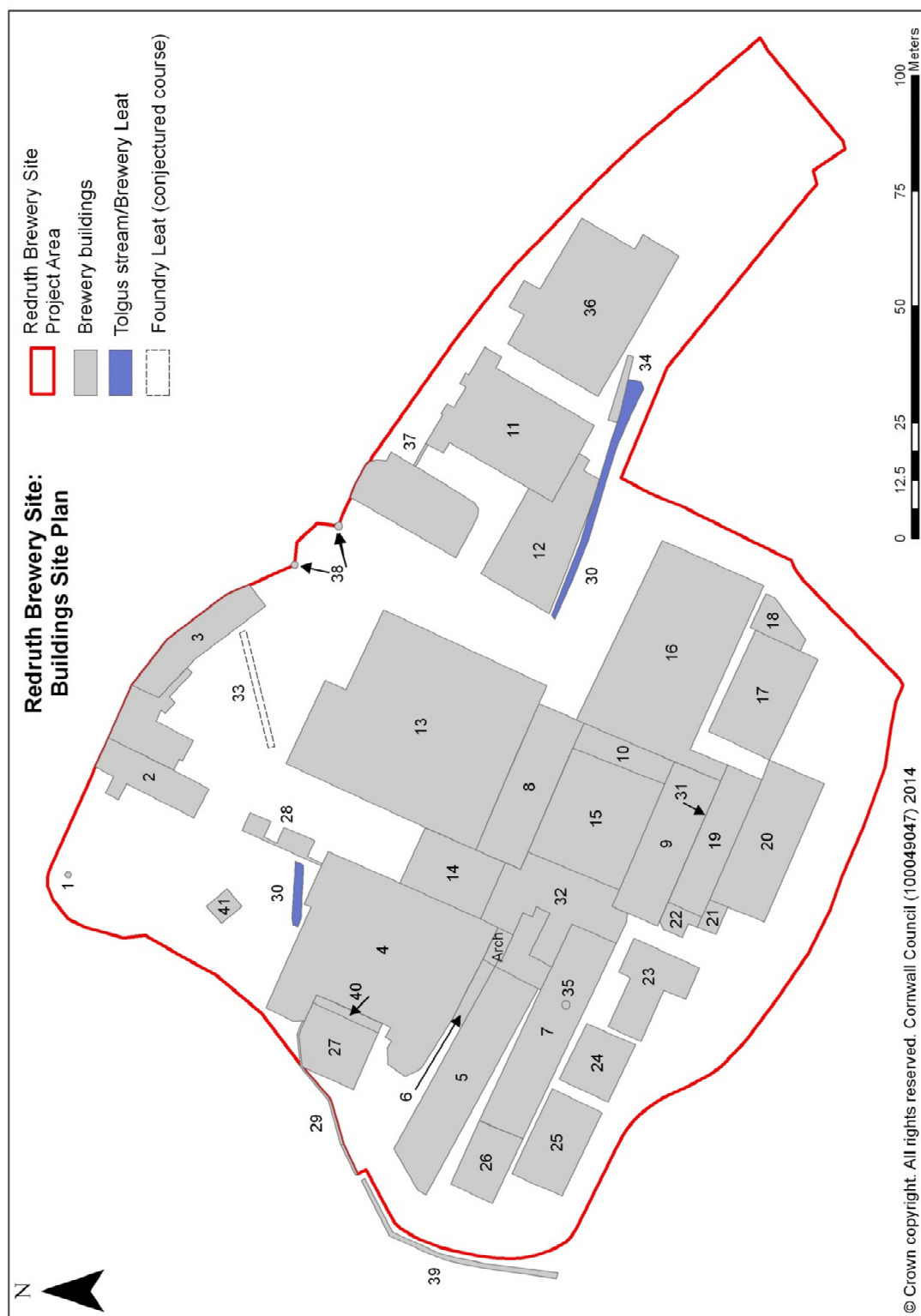


Fig 34 Numbered buildings plan reflecting buildings discussed in Section 9. The numbering sequence uses that given in the Trevithick Society's report (Joseph 2005) with some additions.

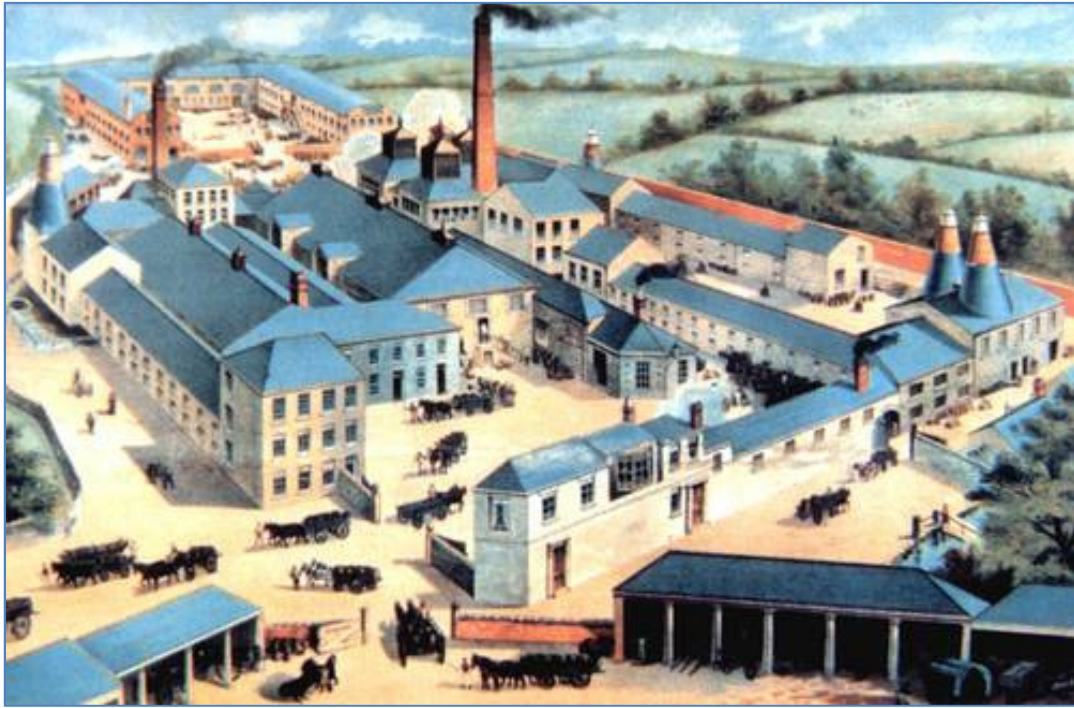


Fig 35 Late 19th/early 20th century painting of Redruth Brewery (provenance unknown). Digital copy of original painting reproduced with kind permission of John Baughan.



Fig 36 Brewery Leat feeding into the brewery site from the east. The leat drops away sharply beneath the iron grid and now runs northwest through a modern culvert.



Fig 37 The historic route of Brewery Leat where it runs towards the corner of the historic brewhouse, currently paved over where it was used for electric conduit.



Fig 38 Brewery Leat running west past the corner of the historic brewhouse; the banks are now severely overgrown and the path and railings alongside the leat are hidden.



Fig 39 Brewery Leat running west past the rear entrance to Penventon Hotel.



Fig 40 Chymbbla House, formerly part of the safety fuseworks, currently much damaged through vandalism and arson attacks.



Fig 41 The base of the chimney stack that was originally part of the earliest safety fuse factory buildings.

The winder wheel from a mine head frame is a modern addition.



Fig 42 The base of Building 41, part of a magazine associated with the safety fuseworks, now partially ruinous and hidden under ivy.



Fig 43 Historic buildings currently adjoined to Chymbla House by modern additions, much modified and originally associated with a mid-19th century saw and bone mill.



Fig 44 The rear walls of the historic saw, bone mill and fuseworks buildings now forming the northern boundary wall to the Redruth Brewery site.



Fig 45 Winklow House with its geodesic roof design. Although showing some modification the building survives as a rare example of its kind.



Fig 46 The interior of Winklow House



Fig 47 The Bonded store associated with Redruth Brewery looking west towards Winklow House.



Fig 48 Looking northwest along The Channel (6); the historic brewhouse (4) is right of shot (with part built over the arched section) and one of the historic maltheouses (5) left of shot.



Fig 49 A surviving granite pillar to a possible late 18th century porch associated with the historic brewhouse (4), currently partly incorporated within a later wall.



Fig 50 Looking southwest along the rear of the historic brewhouse (4) towards the remains of a modern brewhouse (14), now largely demolished. The modern ground



surface appears considerably raised above its historic level in this area.

Fig 51 Looking southwest across the covered yard (15) towards buildings 9 and 19. The outflow for the Wheal Silver adit (31) is situated below and to the right of the modern opening top right centre. Water still flows from this across the present-day ground surface, draining to the northwest (bottom right of shot).



Fig 52 Looking northwest along the 1950's building (19), currently adopted as an unofficial skate-park and arthouse by the local youth community. The Wheal Silver adit



(31) outlets from below this building to the northeast (bottom right of shot).

Fig 53 The Wheal Silver adit (31) looking southwest from inside building (9) towards the external northeast wall of the 1950's building (19). The flow of water from the adit is clearly visible.



Fig 54 Remains of historic walling on the southeastern side of building 10, possibly part of a later extension to this building.



Fig 55 Surviving walling to two historic buildings (39) associated with the Redruth Brewery, now forming a boundary wall to a modern footpath around the brewery site.



Fig 56 The surviving interior of a late 20th century conditioning room (25). The circular vents left by the removal of the brewery vats lend a distinctive modern architectural character to this building, meriting its reuse within any planned redevelopment.



Fig 57 The front yard of the historic Redruth Brewery with the foundations of the fermentation vessels (27) centre foreground and the historic Brewhouse (4) behind. An additional range of historic buildings ran along the western edge of the yard in the vicinity of the current gated entranceway.



Fig 58 The south side of the historic malthouse (5) and later stack (35), looking east towards building (9) and the 1950's building (19). The foundations of three modern brewery buildings (23-25) are visible in the foreground.



Fig 59 The front southeast-facing façade of the historic brewhouse (4).



Fig 60 The rear northwest-facing façade of the historic brewhouse (4).



Fig 61 The interior of the old brewhouse (4), looking southeast. The cast iron pillars on the left are from Redruth Foundry.



Fig 62 Closer detail of one of the cast iron pillars in the old brewhouse. The wooden floor of the upper storey retains much of its latticed support detailing.



Fig 63 Granite paving covering the floor of the old brewhouse (Areas F, G and J).



Fig 64 The historic brick arch between parts A and B of the old brewhouse (4).



Fig 65 Building (8) and its surviving historic curved roof, looking northwest



Fig 66 Building (8) looking south. The curved roof and upper line of windows are original features of both building (8) and (9) but survive best within building (8).



Fig 67 Looking across the upper floor of building (8) demonstrating that much still survives of the original building, albeit with some modification.



Fig 68 Looking southeast towards the old brewhouse (4) from the main brewery yard. The entrance to the Channel (6) is visible centre shot. One of the historic malthouses (5) lies right of shot.



Fig 69 looking towards the southwest facing wall of malthouse (5) with its clerestory ventilator.



Fig 70 Looking north towards malthouse (7) and the brick chimney stack (35).



Fig 71 Looking east towards the 1950s building (19) with building (9) to the left. Both would originally have had curved roofing; the curved framework for the roof of building (9) survives in situ beneath its later pitched roofline.



Fig 72 Looking northeast towards Redruth Brewery from the grounds of Penventon Hotel. The granite gateposts marked a service approach to the former Penventon House; stables to the house formerly stood on the site of a modern car park, left out of shot.



Fig 73 The curved roofs of Buildings 8 and 9 in May 1899

The bell-tents in the background were set up by the 2nd Battalion DCLI as part of their recruitment drive held in Silver Fields (below Penventon House).

Historic photo kindly supplied by Mr P Bradley



Fig 74 A steeplejack stands on top of the fuseworks chimney, 1910

Historic photo kindly supplied by Mr P Bradley



*Fig 75 View of Redruth Brewery from Silver Fields in the 1930s, looking north west
The curved roof of Building 9 is towards the right. Although the tall vented malthouse roof has since gone the walls of this building still remain, as do those of the hipped building at the centre. Note the figures on top of the principal chimney stack. Both the smaller chimneys have since disappeared; that on the right served a steam engine.
Historic photo kindly supplied by Mr P Bradley*

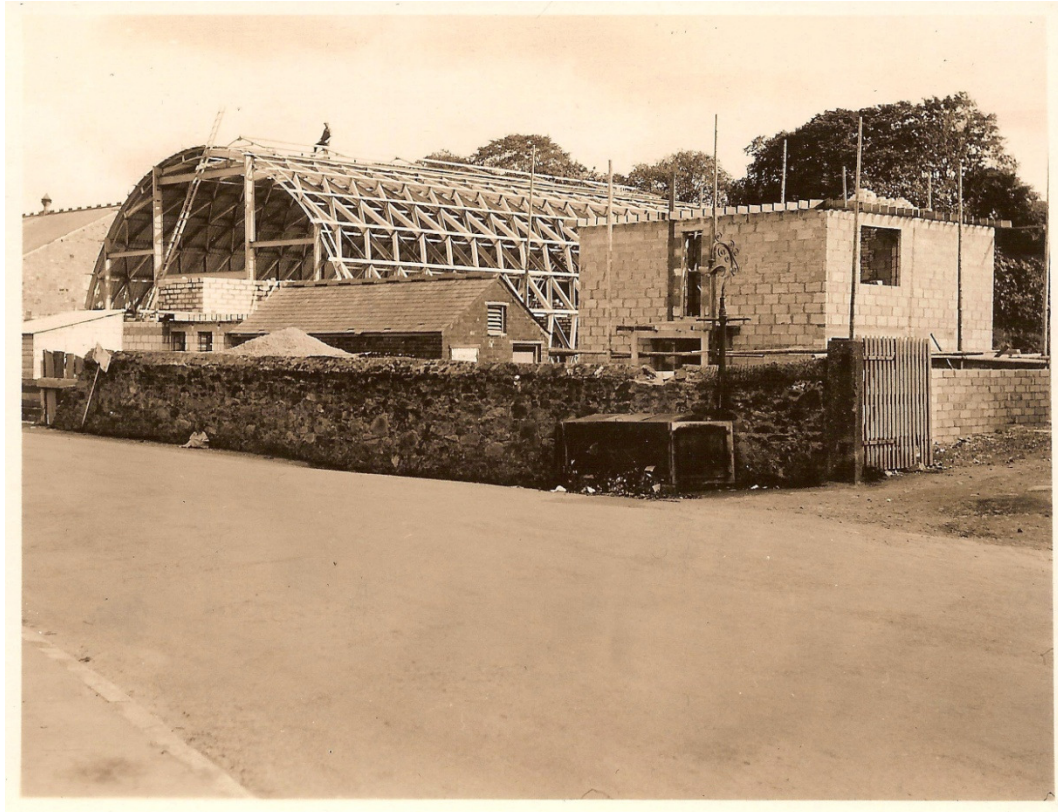


Fig 76 Construction of Winklow House and Kimberley House for the Territorial Army in the late 1930s

Historic photo kindly supplied by Mr P Bradley



Fig 77 Chymbla House after initial fire damage, c2005

The red steel frame of the New Brewhouse is to the right
Historic photo kindly supplied by Mr P Bradley

Appendix 1: Planning brief

HISTORIC IMPACT ASSESSMENT BRIEF FOR THE REDRUTH BREWERY REDEVELOPMENT SITE

Date: 10th February 2014 August 2013

Site: Redruth Brewery Site

Application Number: N/A

HBSMR Ref: CC05693

Applicant: N/A

Agent: N/A

Historic Environment Planning Advice Officer: Phil Markham,

Planning Case Officer: Hollie Nicholls,

This brief is only valid for six months. After this period the Historic Environment Planning Advice Officer (HEPAO) should be contacted. The contractor is strongly advised to visit the site as there may be implications for accurately costing the project.

Contractors Written Scheme of Investigation (WSI)

No ground works are to be undertaken until the HEPAO and the Local Planning Authority (LPA) have approved the archaeological contractor's WSI.

1.0 Introduction

- 1.1 This brief has been written by the HEPAO and sets out the minimum requirements for a historic environment impact assessment of the site of the proposed Redruth Brewery development. This assessment will be required to provide information on the significance of the historic environment and its assets within the development area, especially those pertaining to the Outstanding Universal Value (OUV) of the Cornwall and West Devon Mining World Heritage Site (WHS) and those pertaining to the Plain-an-gwarry Conservation Area. They should inform the proposed developments Masterplan, scale, massing, design and materials so that the historic significance of the area and its assets are retained or improved. This assessment will include a description of the OUV and will assess the potential buried archaeological potential, the

existing buildings and structures and the setting of those historic assets, especially those relating to the OUV.

2.0 Site Location and Description

- 2.1 The Redruth Brewery development site is located on the northern edge of Redruth at Ordnance Survey Grid Reference SW 69507 42218 and has been an area of industrial activity for a few hundred years.

3.0 Planning Background

- 3.1 It is the intention of the site owner to submit an outline planning application with all matters reserved within February or March 2014.
- 3.2 The National Planning Policy Framework (NPPF) paragraph 128 states:
In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.
- 3.3 A previous Conservation Area Consent was granted for the demolition of some of the structures on the site. See PA11 / 08764 which may include useful information and justification. Due to changes in legislation an approval process for demolition will still have to be sought for buildings on the site.
- 3.4 The strategy for delivering planning applications on the Redruth brewery site involves three components. See attached plan.
- This HEIA is intended to support an outline planning application for a mixed use scheme on the brewery site by a private developer.
 - A full planning application has already been approved for the Public Realm and Flood Alleviation Scheme [submitted by the Council] which runs through the centre of the site. Although there is currently no technical permission for the demolition of the more modern buildings required to build this scheme. For information this scheme area is excluded from the outline planning application boundary.
 - The site of the Kresen Kernow project is not included in the outline planning application boundary, has no valid

permission for demolitions. A separate Full Planning application for this project will be developed separately by the Council.

- 3.5 The development proposal for the mixed uses scheme will be in outline form with all matters reserved. It will seek approval for certain uses with areas and unit numbers. Illustrative drawings will be included to demonstrate one development option to test the capacity of the site. It must not be taken as a detailed scheme to assess, but may assist understanding of potential changes. Recommendations from this study should be worded in a way that could inform specific conditions or design codes that are essential to achieve a scheme of appropriate quality.

4.0 Historic Environment Background

- 4.1 The proposed development area includes Redruth Brewery which started in 1742, and was reformed in 1790-1800 (as Magor and Davey), and much of its plant was built in 1802. The brewery was built here because of the availability of pure water from a long disused adit associated with Wheal Silver at West End. The brewery with its stack dominates the valley, and is in itself an interesting group with various remains needing more investigation. The site is also within the Camborne and Redruth Mining District of the Mining World Heritage Site and contains significant assets relating to the OUV such as the potential remains of the British and Foreign Fuse Works. The site is also within the Plain-An-Gwarry Conservation Area.

5.0 Legislation and Guidance

- 5.1 The international, national and local guidance for the protection of World Heritage sites, Conservation Areas and historic environment assets both designated and undesignated will be detailed and include how the assessment conforms to this guidance.

6.0 Cornwall and West Devon Mining World Heritage Site Outstanding Universal Value

- 6.1 The assessment will include the Statement of the Outstanding Universal Value for this area and describe how this applies to the assets impacted upon by the proposal.
- 6.2 This work will detail:
- What assets contain or reveal OUV
 - What the relationship with the rest of the WHS, locally and across the WHS is
 - Visual relationships
 - Process relationships
 - Intellectual relationships

- The relationship of other historic environment assets to the significance of the OUV

7.0 The Assessment (General)

7.1 The assessment will describe the context, condition, authenticity and integrity of the Redruth Brewery site and its historic environment assets in relation to this proposal and can be divided into the following categories:

- Archaeological Assets
- Built Assets
- Historic Environment Setting Issues
- How these assets and issues should inform the development proposal.

These are explained more in the following sections.

8.0 Buried Archaeological Assessment

8.1 Ground works may disturb buried archaeological remains relating to the brewery and the OUV significant British and Foreign Fuse Works. In order to understand the site and its potential for recording archaeological remains an assessment is required. This would involve a desk based assessment including a map regression plus a walk over survey to assess any extant remains of the site. This would provide evidence for any recommendations for archaeological recording.

8.2 The Site Specific Aims are to:

- Draw together the historical and archaeological information about the site.
- Review and analyse historic map evidence for the site.
- Assess whether historic/architectural features should be retained.
- Inform whether archaeological recording of any extant remains is required.
- Inform whether an archaeological evaluation or further archaeological recording of any potential buried remains is required.
- Inform whether palaeo-environmental sampling would be required.
- Produce 'statements of significance' for all designated historic assets, that are identified as potentially impacted on by the current proposals. Where currently undesignated assets are identified their likely significance should be indicated i.e. 'national', 'regional' or 'local'.
- Develop a strategy for advancing the understanding of the archaeological heritage assets with particular reference to the South West Archaeological Research Framework (SWARF) aims such as public interest, outreach, recording of the built

environment, widen understanding of mineral extraction and processing and widen the understanding of the brewing industry and closures etc.

- Identify the construction, use and 'end of life' impacts of the current proposals on the 'national importance' of Scheduled Monuments, the 'Outstanding Universal Value of the World Heritage Site' and on undesignated historic assets as described in the NPPF.

9.0 Built Environment Assessment

9.1 The development proposal will impact on the brewery buildings themselves and other structures of significance to the OUV and the Conservation Area. In order to understand the significance of the assets within the site an assessment is required. This would involve a desk based assessment including a map regression to better understand the history of the site plus a walk over survey to assess the extant remains of the site.

9.2 The Site Specific Aims are to:

- Draw together the historical information about the site.
- Review and analyse historic map evidence for the site.
- Record whether Buildings/structures/historic/architectural features should be retained.
- Inform whether archaeological recording of any extant remains is required.
- Produce 'statements of significance' for all designated historic assets, that are identified as potentially impacted on by the current proposals. Where currently undesignated assets are identified their likely significance should be indicated i.e. 'national', 'regional' or 'local'.
- Identify the construction, use and 'end of life' impacts of the current proposals on the 'national importance' of the 'Outstanding Universal Value of the World Heritage Site', the Conservation Area, Listed Buildings and on undesignated historic assets as described in the NPPF.

10.0 Historic Environment Setting Assessment

10.1 The assessment of the setting issues of this proposal should follow the English Heritage Guidance, The Setting of Heritage Assets: <http://www.english-heritage.org.uk/publications/setting-heritage-assets/> ; this document sets out English Heritage guidance on managing change within the settings of heritage assets, including archaeological remains and historic buildings, sites, areas, and landscapes. On this particular site the quality of hard and soft landscaping and reuse of existing material such as the granite slabs within the former brewery buildings is particularly important.

11.0 How This Assessment Should Inform the Proposed Development

- 11.1 The assessment must include a final section to list any necessary guiding principles for development. These must take account of existing fixtures such as the current planning approval for the public realm scheme and the previous process for securing conservation area consent for some demolition.
- 11.2 Any recommendation must be accompanied by a specific justification based on supplied evidence on the significance of the site.
- 11.3 Any recommendations must be prioritised to ensure that there is a distinction between critical constraints [eg recommendations to conserve assets or buildings] and those that highlight opportunities to enhance the setting of buildings or the OUV. Subject to justification these could include:
- Retention of buildings or structures.
 - Specific relationships that must be maintained between retained buildings and spaces or other buildings.
 - Key views to retain from specific viewpoints
 - Necessary restrictions on height or massing or building lines in key locations
 - Opportunities for recording , Research and Outreach

12.0 General Guidance

- 12.1 The archaeological contractor is expected to follow the code of the Institute for Archaeologists (IfA).
- 12.2 All of the latest Health and Safety guidelines shall be followed on site.
- 12.3 Terminology will be consistent with the English Heritage Thesaurus.
- 12.4 The assessment should refer to the following guidance:
- [Cornwall and West Devon Mining Landscape World Heritage Site Management Plan 2013 - 2018](http://www.cornishmining.org.uk/sites/default/files/Cornwall_and_West_Devon_Mining_Landscape_World_Heritage_Site_Management_Plan_2013-2018.pdf)
http://www.cornishmining.org.uk/sites/default/files/Cornwall_and_West_Devon_Mining_Landscape_World_Heritage_Site_Management_Plan_2013-2018.pdf
 - [Guidance on Heritage Impact Assessments for Cultural World Heritage Properties, International Council on Monuments and Sites, 2011](http://whc.unesco.org/uploads/events/documents/event-992-5.pdf)
<http://whc.unesco.org/uploads/events/documents/event-992-5.pdf>

- [Conservation Principles: Policy and Guidance for the Sustainable Management of the Historic Environment](http://www.english-heritage.org.uk/publications/conservation-principles-sustainable-management-historic-environment/conservationprinciplespoliciesguidanceapr08web.pdf), English Heritage, 2008
<http://www.english-heritage.org.uk/publications/conservation-principles-sustainable-management-historic-environment/conservationprinciplespoliciesguidanceapr08web.pdf>
- [The Setting of Heritage Assets](http://www.english-heritage.org.uk/publications/setting-heritage-assets/setting-heritage-assets.pdf), English Heritage, 2011
<http://www.english-heritage.org.uk/publications/setting-heritage-assets/setting-heritage-assets.pdf>
- [Understanding Place, Historic Area Assessments: Principles and Practice](http://www.english-heritage.org.uk/publications/understanding-place-principles-practice/understanding-place-haa.pdf), English Heritage, 2011
<http://www.english-heritage.org.uk/publications/understanding-place-principles-practice/understanding-place-haa.pdf>

13.0 Results

- 13.1 The full report including any specialist assessments shall be submitted within a length of time (but not exceeding six months) to be agreed between the applicant and the archaeological contractor, Cornwall Council Historic Environment Service and the Cornwall Record Office or Royal Cornwall Museum. A further digital copy shall be supplied on CD-ROM preferably in 'Adobe Acrobat' PDF format.
- 13.2 The archaeological contractor will undertake the English Heritage/ads online access to the index of archaeological investigations (OASIS).
- 13.3 This report will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.
- 13.4 The report must contain:
- A concise non-technical summary of the project results.
 - The aims and methods adopted in the course of the investigation.
 - Clarification of the proposal
 - Justification for the retention and demolition of existing buildings on the site and a brief summary of the proposed methodology for any demolition or re-siting of any original structures.
 - The applicable Legislation and Guidance
 - The Site's Historic Background
 - The Significance of the site and individual elements, especially relating to OUV
 - The strategic impact of the proposed scale and location of development on the site, especially relating to OUV
 - Any specific recommendations to inform the current outline application.

- Specific recommendations that could be conditioned or inform design codes to ensure these can be carried over to the detailed design stage.
- Proposed Mitigation
- A location map, a drawing showing those areas examined as part of the archaeological recording, and copies of historic maps and plans consulted and any archaeological plans and sections. All plans shall be tied to the national grid.

14.0 Archive Deposition

- 14.1 An ordered and integrated site archive will be prepared in accordance with: *Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006* upon completion of the project.
- 14.2 Where there is only a documentary archive this will be deposited with the Cornwall Record Office.
- 14.4 A summary of the contents of the archive shall be supplied to the HEPAO.

15.0 Monitoring

- 15.1 The HEPAO will monitor the work and should be kept regularly informed of progress.
- 15.2 Notification of the start of work shall be given preferably in writing to the HEPAO at least one week in advance of its commencement.
- 15.3 Any variations to the WSI shall be agreed with the HEPAO, preferably in writing, prior to them being carried out.

Appendix 2: Written Scheme of Investigation

Redruth Brewery impact assessment WSI, Rev01, NT, 7/3/2014

Historic Environment Projects, Cornwall Council



Redruth Brewery: Written Scheme of Investigation for an impact assessment

Client: Economic Development, Cornwall Council

Project background

The site of the derelict Redruth Brewery, located on the north western side of Redruth at NGR SW 69507 42218, has been identified as an area of great development potential to help economically regenerate the town of Redruth. The Economic Development directorate of Cornwall Council has initiated a site masterplan, and has realised an option to buy parts of the site from January 2014. The masterplan includes proposals to renovate the core historic brewery buildings to become Kresen Kernow, a new county centre for archives and for promotion of historic studies. The Kresen Kernow site is also the subject of a Conservation Management Plan, which is being undertaken in 2014 by Alan Baxter and Associates.

The wider development site includes the area into which the brewery expanded largely in the later 19th and 20th centuries. Proposals for this part of the site include housing, industrial and retail units plus an open pedestrian square and walk alongside the former brewery leat. It is intended that this walkway will connect with the town centre.

There are plans to demolish the later brewery buildings to create space for the replacement structures. An older building in this area, Chymbla House, will be retained. Chymbla House lies near the north western corner of the site and is associated with the former British & Foreign Fuse Works that was located here in the later 19th and early 20th centuries. Wicklow House, located on the northern street frontage, is an unusual demountable steel frame structure designed in Germany and built in 1937. It is proposed to take down and re-site this building but the location of this has yet to be determined.

The whole of the former brewery lies within part of the Cornwall and West Devon Mining Landscape World Heritage Site (WHS). Part of the association with mining (and therefore contributing to its Outstanding Universal Value (OUV), or international significance) is the former British & Foreign Fuse Works (1848) on the northern edge of the site, the remaining buildings of which includes a stump of a chimney and Chymbla House. A range of stone-built outbuildings east of Chymbla House also represents expansion of the fuseworks by the beginning of the 20th century. A sawmill was also formerly located between the brewery and the road.

The National Planning Policy Framework (NPPF) paragraph 128 states:

In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

The significance of the site within the WHS, as well as being part of the town's Plain-an-Gwarry Conservation Area, has resulted in a request for an impact assessment to include all the historic assets of the site and their setting. A brief for the assessment has been issued by Mr Phil Markham, the Historic Environment Planning Advice Officer (22nd August 2013). The Historic Environment Projects team was approached by John Sneddon of Provelio Limited (acting on behalf of Economic Development, Cornwall Council), with a view to satisfying the archaeological and built environment elements of the brief. This Written Scheme of Investigation (WSI) sets out the aims of the study, working methods and arrangements for project monitoring.

Site history

(reproduced from the Conservation Management Plan Request for Quotation document, with minor edits)

The original brewery is thought to have been started at Sparrow Gate in 1742 by members of the Davey family, moving to the current site in 1792 when it also became Magor, Davey & Company of Redruth. The site had the advantage of water from Wheal Silver Adit and proximity to the mineral tramway running to the major harbour at Portreath.

Much of the brewery was built from 1802, with granite coming from nearby quarries at Carn Marth. In 1805 the business became known as 'Redruth Brewery Company', supplying beer shops and pubs across west Cornwall and mines such as Dolcoath Mine, Wheal Uny and Wheal Fortune. By 1873 the site comprised: the brewery, 3 malt houses, counting houses, cottage, engine and boiler house, sheds, carpenters' shop, private office, yards, beer store, aerated water factory, water tanks and water reservoir. In 1848 the British and Foreign Fuse Works constructed a factory on site which when it closed in around 1908 became a substantial knitwear factory.

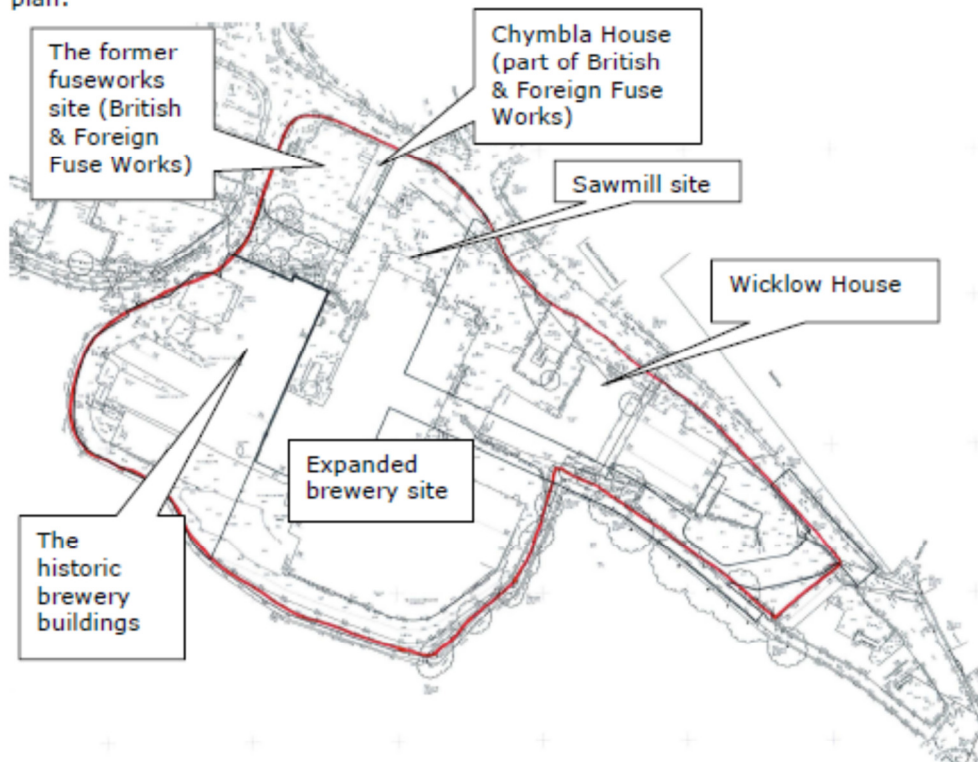
The supply of water was of great importance to the brewery and from 1873 the main source was 'Buller water', taken from the Trewirgie tenement, owned by Lieutenant-Colonel Sir Redvers Henry Buller, famous for his exploits during the Boer War. This water was so clean that it was bottled without further processing other than carbonation and sold as 'Cornish artesian spring water'.

By 1890 the brewery owned over 150 pubs and was one of the largest employers in the area and one of the largest breweries in the West of England. In 1934 the brewery was acquired by John Devenish and was renamed 'Devenish Redruth Brewery Ltd' until the closure of J.A. Devenish, a management buy-out of the brewery and the sale of the pubs in 1991. The brewery went into administration and was acquired by Dransfield Food & Beverages Holdings Ltd and was named 'Redruth Brewery (1792) Ltd' before being transferred to Sino-Cornwall Ltd in

1996. In 2004 the brewery went into administration and over the next year was stripped of machinery and equipment. The derelict site has subsequently suffered from vandalism and a major arson attack on the brewery building in 2011.

Project extent

The full extent of the Redruth Brewery development site is shown on the following plan:



Aims and objectives

The principal aim of the study is to gain a better understanding of the historic development of the former brewery and the other industries which once occupied this site. This information will be used to provide an assessment of the brewery and its components and help to inform design and the future direction of the site. The setting of the buildings and its significance within the World Heritage Site and Conservation Area will also be assessed.

Working methods

The Historic Environment Projects team will undertake sections 5 to 10 of the planning brief, to include:

- desk-based research.
- buried archaeology assessment.
- built environment assessment.

- assessment of setting and assessment of OUV for the World Heritage Site.

Section 11 of the brief includes an overall assessment of the impacts of the proposals. This element is to be separately commissioned by Provelio Limited.

Desk-based research

This will include two principal aspects, which will inform the following fieldwork stages:

- Drawing together the relevant legislative background and guidance.
- A study of historic maps and other available sources to provide a regression analysis showing the development of the site.

Work will entail web-based searches and also visits to local archives to investigate sources of information. A map regression analysis will be carried out, to help understand the historic development of the brewery site.

Buried archaeology assessment

In accordance with the brief, the specific requirements are to:

- Draw together the historical and archaeological information about the site.
- Review and analyse historic map evidence for the site.
- Assess whether historic/architectural features should be retained.
- Inform whether archaeological recording of any extant remains is required.
- Inform whether an archaeological evaluation or further archaeological recording of any potential buried remains is required.
- Inform whether palaeo-environmental sampling would be required.
- Produce 'statements of significance' for all designated historic assets, that are identified as potentially impacted on by the current proposals. Where currently undesignated assets are identified their likely significance should be indicated i.e. 'national', 'regional' or 'local'.
- Develop a strategy for advancing the understanding of the archaeological heritage assets with particular reference to the South West Archaeological Research Framework (SWARF) aims such as public interest, outreach, recording of the built environment, widen understanding of mineral extraction and processing and widen the understanding of the brewing industry and closures etc.
- Identify the construction, use and 'end of life' impacts of the current proposals on the 'national importance' of Scheduled Monuments, the 'Outstanding Universal Value of the World Heritage Site' and on undesignated historic assets as described in the NPPF.

Recording work within the buried archaeology assessment will be undertaken according to the Institute for Archaeologists *Standards and Guidance for Archaeological Investigation and Recording*. Staff will follow the IfA *Code of Conduct*, as well as their *Standard and guidance for archaeological field evaluation*. The Institute for Archaeologists is the professional body for archaeologists working in the UK.

A site walkover will be carried out by qualified archaeologists from Historic Environment Projects, to examine the potential of the site for the preservation of buried archaeological material. This will take into account the development of the

present building layout (as understood from the desk-based study), as well as current ground levels and other indicators.

On-site work will be recorded by:

- Annotation of suitable large scale site plans (1/1000 or larger), previously prepared with information from historic maps.
- Digital colour photography (with a resolution of 8MP or higher) will be used to illustrate site areas as appropriate.
- Written notes, to follow a numbering sequence to help identify features/areas on the plans.

Built environment assessment

In accordance with the brief, the specific requirements are to:

- Draw together the historical information about the site.
- Review and analyse historic map evidence for the site.
- Record whether Buildings/structures/historic/architectural features should be retained.
- Inform whether archaeological recording of any extant remains is required.
- Produce 'statements of significance' for all designated historic assets, that are identified as potentially impacted on by the current proposals. Where currently undesignated assets are identified their likely significance should be indicated i.e. 'national', 'regional' or 'local'.
- Identify the construction, use and 'end of life' impacts of the current proposals on the 'national importance' of the 'Outstanding Universal Value of the World Heritage Site', the Conservation Area, Listed Buildings and on undesignated historic assets as described in the NPPF.

Recording work within the buried archaeology assessment will be undertaken according to the Institute for Archaeologists *Standard and guidance for the archaeological investigation and recording of standing buildings or structures* <http://www.archaeologists.net/sites/default/files/node-files/IfASG-Buildings.pdf> and guidance for recording historic buildings provided by English Heritage (2006)

<http://www.english-heritage.org.uk/publications/understanding-historic-buildings/understandinghistoricbuildings1.pdf>

The equivalent of a Level 1 record will be provided for all non-historic (i.e. later 20th century) buildings and a Level 2-3 record for the historic buildings.

A site walkover will be carried out, to examine the site for the survival of historic building fabric and built environment potential. This will take into account the development of the present building layout (as understood from the desk-based study) as well as the survival of the core brewery buildings. There is likelihood that some buildings currently identified as non-historic may contain earlier fabric or occupy the sites of older structures.

On-site work will be recorded by:

- Annotation of suitable large scale site plans (1/1000 or larger), previously prepared with information from historic maps.
- Digital colour photography (with a resolution of 8MP or higher) will be used to illustrate structures as appropriate.

- Written notes, to follow a numbering sequence to help identify buildings/features on the plans.

Assessment of setting

The assessment of the setting issues of this proposal will follow English Heritage guidance documents, including The Setting of Heritage Assets: <http://www.english-heritage.org.uk/publications/setting-heritage-assets/>.

Assessment of OUV for the World Heritage Site

The assessment will include the Statement of the Outstanding Universal Value for this area and describe how this applies to the assets impacted upon by the proposal. As per the brief this work will detail:

- What heritage assets contain or reveal OUV
- The relationship with the rest of the WHS
- Visual relationships
- Process relationships
- Intellectual relationships
- The relationship of other historic environment assets to the significance of the OUV

Assessment of impacts of the proposals

(To be separately commissioned by Provelio limited, with input from Historic Environment Projects, Cornwall Council)

This assessment will provide a synthesis of all of the baseline data into a clear statement of the significance of the site as a whole and its components. It will highlight development opportunities and constraints in terms of maximising the conservation and enhancement of the significant historic assets and OUV.

Assessment report

(To be prepared by Historic Environment Projects with input from Provelio Limited)

The results of the study will be compiled into an assessment report containing the following headings/chapters:

- Non-technical summary
- Project background
- Aims and objectives
- Methodology
- Location and setting
- Designations
- Applicable legislation and guidance
- Site history/results of desk-based study
- Below-ground archaeology assessment
- Built environment assessment
- Assessment of setting
- WHS Statement of Significance and OUV
- Impacts

- Justification for retention or demolition of existing buildings on the site and a brief summary of the proposed methodology for any demolition or re-siting of any original structures
- Potential mitigation measures and opportunities represented by the development
- Conclusions
- References
- Project archive index
- Selected supporting illustrations including location map, historic maps, annotated site plans, photographs

The assessment report will be produced and distributed by Provelio Limited, on behalf of Economic Development, Cornwall Council. The report will be made available in print and digital versions.

A paper copy and a digital (PDF) copy of the report, illustrations and any other files will be supplied to the Cornwall Historic Environment Record. Paper copies of the report will be distributed to local archives and national archaeological record centres.

Archaeological archive deposition

An index to the site archaeological archive will be created and the archive contents prepared for long term storage, in accordance with Historic Environment standards.

The archiving will comprise the following:

1. All correspondence relating to the project, the WSI, a single paper copy of the report together with an electronic copy on CD, stored in an archive standard (acid-free) documentation box
2. A2 drawn archive storage (plastic wallets for the annotated record drawings)
3. Digital colour photographs (stored according to Historic Environment Record guidelines)
4. The project archive will be deposited initially at ReStore PLC, Liskeard and in due course (when space permits) at Cornwall Record Office.
5. Completion of the English Heritage/ADS OASIS online archive index

Timetable

The study is anticipated to be commenced in February 2014 and completed by the end of March 2014.

Project monitoring

Monitoring of the project will be carried out by Mr Phil Markham, Historic Environment Planning Advice Officer. Monitoring points during the study will include:

- Approval of the WSI
- Completion of fieldwork
- Completion of assessment report
- Deposition of the archive

Appendix 1 Project staff

Historic Environment Projects team

Historic Environment Projects is the contracting arm of Historic Environment, Cornwall Council (HE). HE employs some 20 project staff with a broad range of expertise, undertaking around 120 projects each year.

HE is committed to conserving and enhancing the distinctiveness of the historic environment and heritage of Cornwall and the Isles of Scilly by providing clients with a number of services including:

- Conservation works to sites and monuments
- Conservation surveys and management plans
- Historic landscape characterisation
- Town surveys for conservation and regeneration
- Historic building surveys and analysis
- Maritime and coastal zone assessments
- Air photo mapping
- Excavations and watching briefs
- Assessments and evaluations
- Post-excavation analysis and publication
- Outreach: exhibitions, publication, presentations

Standards



HE is a Registered Organisation with the Institute for Archaeologists and follows their Standards and Code of Conduct.

As part of Cornwall Council, the HES has certification in BS9001 (Quality Management), BS14001 (Environmental Management), OHSAS18001 (Health, Safety and Welfare), Investors in People and Charter Mark.

Freedom of Information Act

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.

HE will ensure that all information arising from the project shall be held in strict confidence to the extent permitted under the Act. However, the Act permits information to be released under a public right of access (a "Request"). If such a Request is received HE may need to disclose any information it holds, unless it is excluded from disclosure under the Act.

Health and safety statement

HE follows the Council's *Statement of Safety Policy*. For more specific policy and guidelines HE uses the manual *Health and Safety in Field Archaeology* (2002) endorsed by the Standing Conference of Archaeological Unit Managers and also the

Council for British Archaeology's Handbook No. 6 *Safety in Archaeological Field Work* (1989).

Insurance

As part of Cornwall Council, HE is covered by Public and Employers Liability Insurance, with a policy value of £50m. The Council also has Professional Negligence insurance with a policy value of £5m.

Nigel Thomas BA MifA

Senior Archaeologist who has worked with HEP (and its predecessor organisations) since 1987. Responsible for management of projects relating to historic building recording and surveys of historic landscapes. Past work has included recording and structural analysis at Launceston and Restormel Castles, medieval chapels at Rame, Bodmin and Hall (Bodinnick), as well as landscape surveys at Lanhydrock park and Godolphin gardens. Project manager for historic building analyses at Tintagel Old Post Office, Cotehele House, St Michael's Mount summit complex and Trevice for the National Trust. Has recorded numerous industrial structures including Harveys Foundry, Loggans Mill (Hayle), Town Mills at St Columb Major, and china-clay area features including the waterwheel at Virginia CC Works, Greensplat engine house and Carrancarrow chapel. Project team leader for the Lostwithiel Town Characterisation Study. Member of the IfA's Buildings Group and Graphic Archaeology Group. An experienced user of AutoCAD and is responsible for HE's survey methodology.

Nigel will manage the buried archaeology assessment on behalf of HEP and also contribute to the fieldwork.

Fiona Fleming BSc Hons, MA, PhD, AIfA

Fiona has worked as a contractual archaeologist with HE since 2006, combining excavation and targeted project work alongside her full time studies. Specialising in Landscape Archaeology and GIS-based characterisation, Fiona has recently completed her PhD with Exeter University, which focussed on a broad scale regional analysis of late Roman and early medieval settlement continuity. Having undertaken a variety of projects within the HE projects team, including excavation, watching briefs and environmental impact assessments, Fiona is currently working on the Devon Extensive Urban Survey Project, characterising the historic development of Devon towns. Fiona's particular interests lie in Landscape Archaeology and rural settlement development in South West England from the late Iron Age through to the early medieval periods.

Fiona will undertake the desk-based research and produce the buried archaeology assessment.