

hayle harbour :: regeneration

South Quay

Amendments to the Development Proposals at South Quay & Foundry Yard Hayle Harbour

Application Reference PA/08142

July 2011



Heritage Statement

Contents

1	INTRODUCTION.....	4
1.1	Aim and report structure	4
1.2	Authorship.....	5
1.3	Methodology Statement.....	6
1.4	Planning Policy Statement and Non-Statutory Guidance	6
2	THE SITE CONTEXT	8
2.1	The Site and its immediate environs.....	8
2.2	Statutory Status: the WHS designation and Hayle Conservation Area.....	9
2.2.1	The Cornwall and West Devon Mining Landscape World Heritage Site	9
2.2.2	The Hayle Conservation Area.....	12
3	BRIEF HISTORICAL BACKGROUND AND SOUTH QUAY DEVELOPMENT	14
3.1	The estuary before industrial revolution	14
3.2	The 18 th century: early industrial development.....	14
3.3	The 19 th century: the golden years of Harvey & Co. and decline of mining industry	16
3.3.1	The construction of the South Quay peninsula.....	17
3.3.2	South Quay development and changes to the estuary configuration	20
3.3.3	Shipbuilding in South Quay and new slipways	24
3.4	The first half of XX century: trading in building materials and war time	26
3.5	The second half of the XX century: towards decline.....	30
3.6	Summary of historical development of South Quay.....	30
4	ARCHAEOLOGY	32
4.1	Archaeology	32
4.1.1	Background.....	32
4.1.2	2010 Trial Evaluation.....	32
4.1.3	2011 Evaluation.....	33
4.1.4	Protection of archaeological remains	35
5	SPATIAL AND CHARACTER ANALYSIS OF THE SITE.....	37
5.1	South Quay	37
6	CONSULTATIONS.....	53
	55
7	SIGNIFICANCE OF THE SITE AND ITS CONTRIBUTION TO THE OUV OF THE WORLD HERITAGE SITE.....	56
7.1	Evidential value.....	56
7.2	Historical value.....	59

7.3	Aesthetic value.....	60
7.4	Communal value	61
7.5	Summary of significance derived from heritage values	Error! Bookmark not defined.
8	PROPOSED DEVELOPMENT	62
8.1	Principal design objectives	62
8.2	Proposals.....	62
8.3	PUBLIC REAL AND LANDSCAPING	64
8.4	SCALE AND APPEARANCE.....	65
9	PP5 CONSIDERATIONS.....	67
9.1	Introduction.....	67
9.2	PPS 5 policies	67
9.2.1	Policy HE6: guidance on information requirements for applications for consent affecting heritage assets.....	67
9.2.2	HE 6.2 states that the information and the impact assessment should be set out within the design and access statement when required.....	68
9.2.3	Policy HE7: Policy Principles guiding the determination of applications for consent to all heritage assets.....	68
9.2.4	HE7.5 continues on the characteristics of the proposals: ‘	69
9.2.5	Policy HE9 sets out principles guiding the considerations for applications for consent relating to designated heritage assets.....	71
9.2.6	Benefits.....	72
9.3	Further considerations in respect of the PPS 5 Historic Environment Planning Practice Guide	74
9.3.1	New development: design in context.....	74
10	English Heritage “Conservation Principles”	75
10.1	Background	75
10.2	"Integrating Conservation with Other Public Interests,.....	75
10.2.1	Conservation Principles para 149:	75

1 INTRODUCTION

1.1 Aim and report structure

This document examines the history of the ING owned South Quay site [Fig. 1] in the context of the wider environs, Hayle Conservation Areas and of the Outstanding Universal Value (OUV) of the Cornwall and West Devon Mining Landscape world Heritage Site.

The purpose of this document is to summarise how the existing historical information available to date referred to the development of the South Quay, the assessment of the heritage significance - at international, national and local level - and the consultations with stakeholders have been taken into account and informed the most recent design process, which led to the production of a revised scheme for South Quay by Fielded Clegg Bradley Studios on behalf of ING Real Estate Development UK Ltd.



Fig. 1 Aerial View, the site in red.

The analysis and interpretation of the information gathered constituted the basis for the this heritage statement, which includes “PPS 5 statement”, and makes reference to English Heritage “Conservation principles” and ICOMOS “Guidance on Heritage Impact Assessments for Cultural World Heritage Properties” (2011) . They also provided the basis for the Heritage Impact Appraisal of the redevelopment of the site, included in the ES Report also part of the supplementary information provided for this planning application. However, the information contained herein is to be considered supplementary to that already produced and is to take precedence in respect of impact appraisal and factual corrections.

This report is structured in 9 Chapters and a volume of Appendices. After an introduction and the presentation of the site context in Chapter 2, which includes the statutory status, Chapter 3 provides background history briefly outlining the historical evolution of the urban context in the immediate vicinity of the site. It highlights the development of the South Quay, Harvey's Foundry and the adjacent Copperhouse development over the years using a sequence of historic maps and documentary evidence such as historic photographs.

Chapter 4 briefly refers to the results of the archaeological excavations by Northamptonshire Archaeology in the South Quay. The complete report is included in the Archaeological and Cultural Heritage Chapter of the ES Report, also part of the supplementary information provided for this planning application.

Chapter 5 provides a characterization of the site environs, explaining the wider site context as it appears today in relation to the surviving historic fabric. It outlines the architectural characteristics of the townscape and views, in order to achieve an understanding of the physical context, existing qualities and its significance within the historical development of the area.

For the particular analysis of the streetscapes, the area of analysis includes four sub areas: Sub Area A is the Harbour which includes South Quay. Sub Areas B, C and D consist of the Foundry, Penpol and Copperhouse respectively, for which the detailing the extent of historic remains, general attributes, design quality and conditions of the buildings are described and analysed as far as they are relevant to the development on South Quay.

Chapter 6 addresses the account of public involvement which has informed the proposed amendments to the architectural design.

In Chapter 7, the significance of the 'historic environment' and its contribution to the Outstanding Universal Values of the WHS are presented.

Chapter 8 describes the amendments to the proposed development setting out the analyses of the current policies of PPS5 in Chapter 9.

1.2 Authorship

This report has been prepared by Stephen Levrant: Heritage Architecture, an architectural practice devoted exclusively to the historic cultural environment.

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1.3 Methodology Statement

This report is the result of an in-depth assessment that encompasses literature, and documentary research review, analysis and processing of information, building surveying, and previous experience.

It also includes cross referencing of findings in the form of plan sequences and morphological plans. The methods used in undertaking the study assessment are the following:

Literature and documentary research review

The documentary research is based upon primary and secondary sources of local history and architecture, including maps and drawings. The research and data gathering has relied on secondary and tertiary sources including reports, surveys and itineraries commissioned by others for the WHS inscription and site management, and for other development proposals. There has been little consultation of prime sources, and the findings of the referenced quoted material are not challenged unless specifically stated as such.

Site surveys

The survey was conducted by visual inspection of the relevant elements of the site in order to record the surviving features that are associated to the site's OUV. The entire area of Hayle and much of the estuary was visited over the time period allowed for the submission of this additional material.

Dates

Dates of elements and construction periods have been identified using documentary sources and visual evidence based upon experience gained from similar periods and construction sites, and with reference to the already produced reports. A chronology (See Appendix 1) has been compiled summarising the most relevant historical events and correlating them with the main historical agents and values currently associated with the site's significance.

Cross reference of findings

The cross reference between site evidence and archival information reveals how much of the above ground remains have been lost, particularly on South Quay. The morphological maps provide a diagrammatic representation of the buildings according to their individual period of construction as shown in the historical maps.

1.4 Planning Policy Statement and Non-Statutory Guidance

This assessment has been prepared taking into account the information contained in DCLG-PPS5 Planning Policy Statement 5: Planning for the Historic Environment (2010), BS 7913:1998 Guide to the Principles of the Conservation of Historic Buildings and DCLG Circular 07/2009: The Protection of World Heritage Sites. This document also considers sections of the following documents that pertain to the management of the historic environment:

- The Draft Regional Spatial Strategy for the South West 2006-2026;
- Local Development Framework - Core Strategy 2006-2026;

- Hayle Area Action Plan January 2008
- The Management Plan for the Cornwall and West Devon Mining Landscape Area

In addition, the following best practice guidance has been considered in the preparation of this document:

- ICOMOS Guidance on Heritage Impact Appraisals for Cultural World Heritage Properties (2011);
- DCLG & EH-Planning for the Historic Environment Practice Guide (2010);
- DCLG - Development Management Policy Annex on Information Requirements (2010) and associated DCLG-Guidance on Information Requirements and Validation (2010);
- CABE Building in Context Toolkit (2006);
- EH - Conservation Principles Policy and Guidance for the Sustainable Management of the Historic Environment (2008);
- 'Seeing the History in the View' English Heritage May 2011 ;
- The setting of heritage assets - consultation draft English Heritage Guidance Jul 2010.

2 THE SITE CONTEXT

2.1 The Site and its immediate environs

The subject site is located in the South Quay, a peninsula believed to have been constructed on natural bedrock in the small town and civil parish of Hayle¹ within Penwith, the westernmost district of Cornwall [Fig. 2].



Fig. 2 Aerial View, the site in red.

The site occupies the area between Penpol Terrace (to the east) and Carnsew Pool (to the West), bounded to the South by Carnsew Road (on the A30). The southern tip of the site is intersected by the 1837 railway viaduct that separates the quay from Isis Gardens and Foundry Square.[Fig.3].

The town of Hayle lies in the St. Ives Bay and it is situated at the point where the Hayle River, the Penpol River and the Angarrack stream join and enter the sea. Unexpected surges created by heavy ground swell build up on the bar during bad weather and are a navigational problem. The three miles of beach and sand dunes that surrounds the town make much of its periphery ecologically sensitive. In addition, the Hayle estuary is natural environment of great variety and the habitat of many birds and plants, including rare species. The estuary is now an SSSI, a County Wildlife Site and an RSPB Reserve including Carnsew Pool and adjoining Lelant Saltings, as well as the Copperhouse pool

Hayle harbour and its environs suffer from dereliction at present, and are key sites for regeneration proposals which could bring jobs, housing and increased prosperity to the area. Much work has

¹ *Heyl* in Cornish.

already taken place within the town. Projects underway include the refurbishment of historic buildings at Harvey's Foundry, the Hayle Townscape Initiative, streetscaping at Copperhouse and the new Hayle Skate Bowl. The harbour has been granted outline planning permission for a comprehensive scheme of redevelopment encompassing South Quay, North Quay, parts of East Quay and parts of the Towans. South Quay has the benefit of that consent to construct a high-density residential scheme covering the entire site area. In a series of parallel blocks running east-west up to 4.5 storeys in height. The impact of the present proposals must be considered in the light of the impact of that consent, and any perceived harm should also be relatively considered.

2.2 Statutory Status: the WHS designation and Hayle Conservation Area

2.2.1 The Cornwall and West Devon Mining Landscape World Heritage Site

The Port of Hayle is part of the Cornwall and West Devon Mining Landscape World Heritage Site² [Fig. 3], which comprises the most authentic and historically important components of the Cornwall and West Devon mining landscape dating principally from 1700 to 1914, the period during which the most significant industrial and social impacts occurred. The ten areas of the Site together form a unified, coherent cultural landscape and share a common identity as part of the overall exploitation of metalliferous minerals here from the eighteenth to twentieth centuries [Fig. 3].

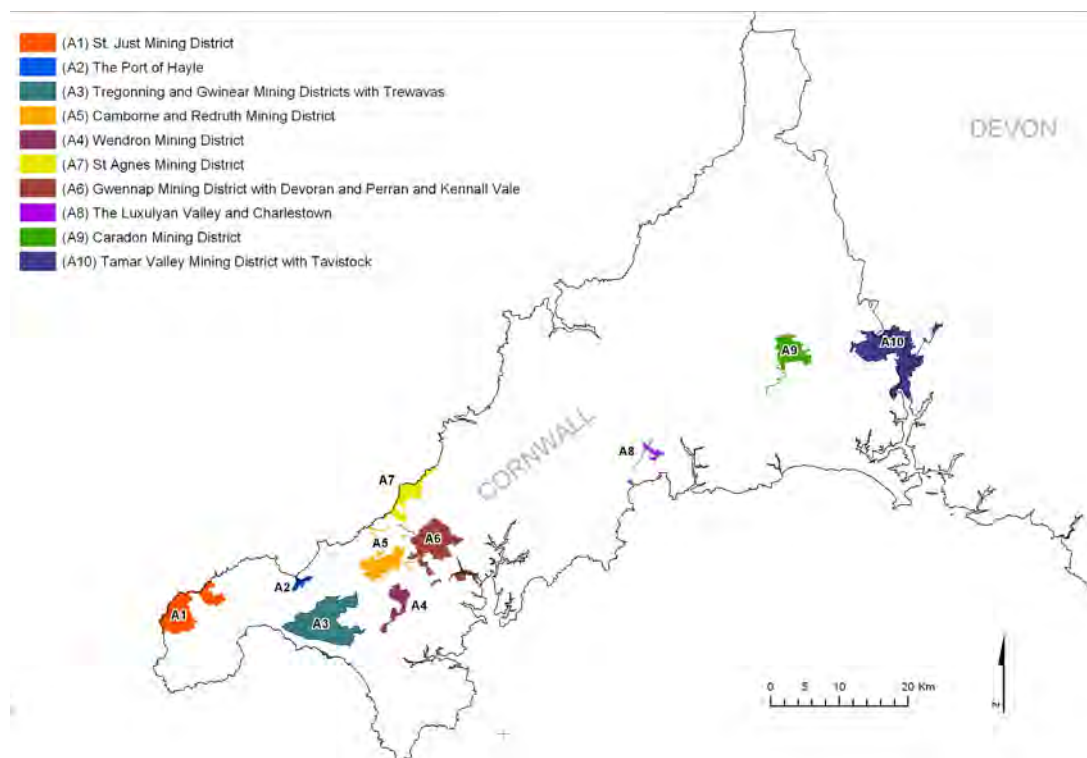


Fig. 3 The Cornish Mining World Heritage Nominated Site

² Identification Number 1215, date of inscription 2006.

The remains of mines, engines houses, smallholdings, ports, harbours, canals, railways, tram roads, and industries allied to mining, along with new towns and villages reflect an extended period of industrial expansion, prolific innovation and testify the sophistication and success of early, large-scale, industrialised non-ferrous hard-rock mining. These constitutes prominent reminder of the contribution Cornwall and west Devon made to the Industrial Revolution in Britain and to the fundamental influence the area asserted on the development of mining globally. Innovative Cornish technology embodied in high-pressure steam engines and other mining equipment was exported around the world, concurrent with the movement of mineworkers migrating to live and work in mining communities based in many instances on Cornish traditions. The transfer of mining technology and related culture, which led to a replication of readily discernable landscapes overseas, confirms the scale of this Site influence.

The Cornish Mining landscape has been recognized having Outstanding Universal Values (OUV) on the basis if the following criteria, under which the property was nominated a World Heritage Site in 2006:

Criterion (ii)³: The development of industrialised mining in Cornwall and west Devon between 1700 and 1914, and particularly the innovative use of the high-pressure steam beam engine, led to the evolution of an industrialised society manifest in the transformation of the landscape through the creation of smallholdings, railways, canals, docks and ports, and the creation or remodelling of towns and villages. Together these had a profound impact on the growth of industrialisation in the United Kingdom, and consequently on industrialised mining around the world.

Criterion (iii)⁴: The extent and scope of the remains of copper and tin mining, and the associated transformation of the urban and rural landscapes presents a vivid and legible testimony to the success of Cornish and west Devon industrialised mining when the area dominated the world's output of copper, tin and arsenic.

Criterion (iv)⁵: The mining landscape of Cornwall and west Devon, and particularly its characteristic engine houses and beam engines as a technological ensemble in a landscape, reflect the substantial contribution the area made to the Industrial Revolution and formative changes in mining practices around the world.

Moreover, in terms of integrity and authenticity:

The areas enclosed within the property satisfactorily reflect the way prosperity derived from mining transformed the landscape both in urban and rural areas, and encapsulates the extent of those changes. Some of the mining landscapes and towns within the property are within development zones and may be vulnerable to the possibility of incompatible development.

The property as a whole has high authenticity in terms of form, design and materials and, in general, the location and setting of the surviving features. The mines, engine houses, associated buildings and other features have either been consolidated or await work. In

³ Criteria (ii) is about exhibiting an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design.

⁴ Criteria (iii) is about bearing a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared.

⁵ Criteria (iv) is about being an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.

the villages and towns there has been some loss of architectural detail, particularly in the terraced housing, but it is considered that this is reversible.

The inclusion of the Port of Hayle [Fig.4] in the area nomination is principally based on the fact that it played a distinguished role in Cornish economic and social history. The area includes the surviving historic fabric of the largest fully integrated mining port and steam engine manufacturing centre anywhere in Britain⁶.

Hayle comprises The Foundry [in green in Fig.4] and Copperhouse [in pink in Fig.4] settlements, fringing the southern edge of the Hayle estuary in a distinct linear character. It represents a unique example of twin-centred industrial and maritime 'new town' made of rows of terraces and villas constructed adjacent to the industrial premises. Within Copperhouse, the use of copper slag (scoria) blocks for the construction of houses, boundary walls, bridges and other structures adds a distinctive vernacular character to the environs.

The Harvey Foundry part of Hayle, inexorably associated with the development of the Harvey Company incorporates the industrial harbour of South Quay and during its activities it was a vibrant, busy, noisy, often grubby place. The extensive and massive, landform-scale of the quays, wharves, sluicing ponds and sea transport infrastructure needed in order to develop such a major industrial complex define the character of the broad open shape of the Port of Hayle, one of Europe's most outstanding estuarine settings. To add to this commercial activity for much of the nineteenth century South Quay was the centre of a thriving shipbuilding business serviced by the Hayle Wharf Railway, built in 1834. Throughout the history of the port of Hayle, pre- and post- the WHS inscription dates, there was carried on a merchant trading business serving the hinterland communities and the mines. This became consolidated into organised business in the first half of the C18th and continued to expand exponentially until 1981, where after it contracted to the present day level.

The quays and the associated waterways and infrastructure of the Hayle Port are important attributes of the World Heritage Site. The following chapters will explain in more details the historical and morphological changes and adaptation of the Port to the pragmatic needs, based on merchant trade, export and import, and industrial processes.

⁶ "Cornwall and West Devon Mining Landscape. World Heritage Site Management Plan 2005-2010, pp. 25-28.

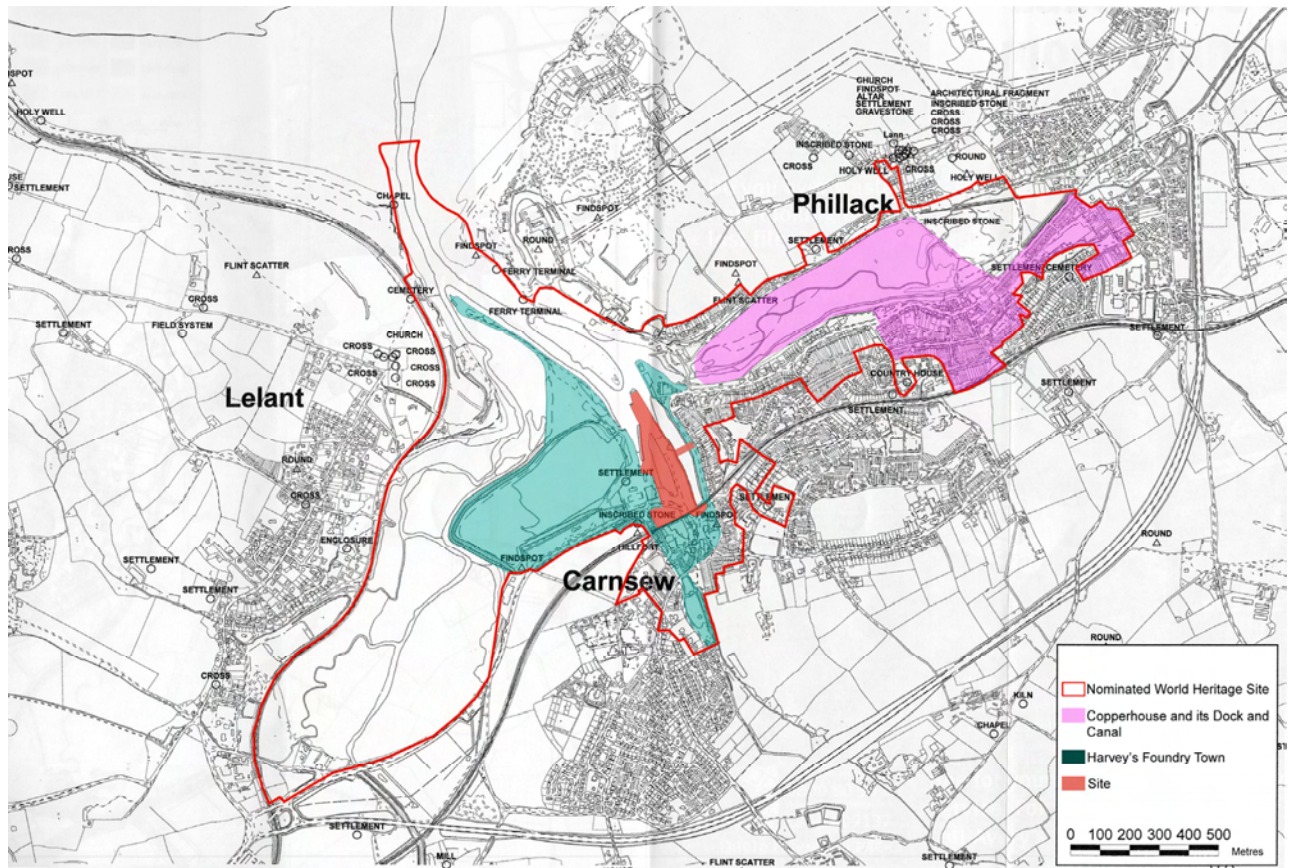


Fig. 4 Hayle and the World Heritage Site Boundary

2.2.2 The Hayle Conservation Area

The subject site is part of the Hayle Conservation Area, which encompasses much of the town of Hayle and includes a number of areas having their own distinctive character: Copperhouse, Foundry, Penpole and the Harbour [Fig.5].

The harbour area, isolated by the railway viaduct, the high ground behind Penpol Terrace and the cliff face at the back of Quay has its own characteristics different from other parts of the conservation area. At first glance the Harbour area of Hayle is a picture of neglect but this is misleading in an historic context because its significance lies in the historic importance of the harbour and its past activity, as the following chapter on the historical development of South Quay explains.

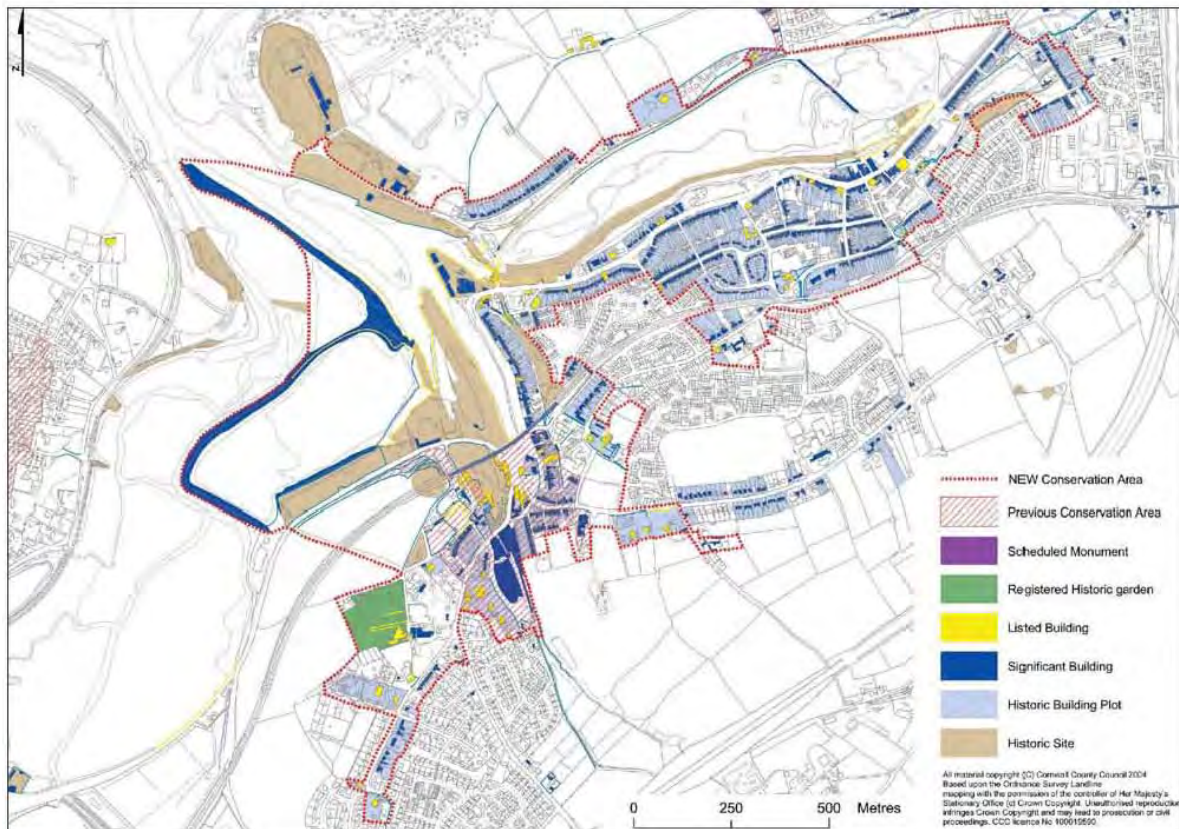


Fig. 5 Conservation Area as designated in 2004.

3 BRIEF HISTORICAL BACKGROUND AND SOUTH QUAY DEVELOPMENT

Much has been written about the history of Hayle and the detailed chronology of events [See Annex A] and bibliography [see Annex B] provide the references for the historical account of the town and region. This chapter highlights those events that contributed to the understanding of the significance of South Quay. A map regression of the site development from 1791 to the present in conjunction with the historical account of Hayle and Cornwall constitute the basis on which the history of the site has been reconstructed.

3.1 The estuary before industrial revolution

The estuary provided a safe harbour and place for settlement, trade and shipping since pre-history providing a relatively safe fording point across the sands, and continued to be an important trading centre in the early medieval period. Accordingly to the Hayle Historical Assessment physical and documentary evidence of a network of quays and causeways around the estuary by the medieval period confirm the relevance of the harbour in the period⁷

The quays at Lelant, a ferry across the estuary mouth, roads leading to the waterside, causeways across the mudflats, hamlets and farmsteads with medieval estate centres – like the church towns of Phillack and Lelant - characterized the area around the estuary before the industrial development. However, the majority of the surviving fabric of Hayle dates to the industrial period that begun in the 18th century.

3.2 The 18th century: early industrial development

The early industrial development of Hayle was driven by the need to supply and service the local mining industry. In 1704 a large tin smelter was erected at Angarrack and in 1710 a copper smelter was erected in Penpol both of which prospered for many years. In the early 1754 copper smelting began in the Camborne. Subsequently the Harbour became a port, which imported coal and exported ores, particularly copper to be smelted in Swansea in Wales and at Bristol.

Although the economic activity in Hayle in the early 18th century was conducted on a large scale, it is difficult to relate it to actual settlement development because no cartographic evidence earlier than the 1791 map of Hayle is available. The majority of workers certainly lived in the farming and manorial settlements, especially to the south and east, where the St Erth valley and Angarrack were already densely settled, and where the tin working, tin stamping and corn mills were located. In addition, the smallholdings around Mellanear, High Lanes and Guildford probably provided workers for both the estuarine activities and local mines.

The industrial expansion in Hayle was forged by twin enterprises. From the modest copper-smelting works established in 1756 grew the Cornish Copper Company (CCC) which gave to the surrounding area the name of "Copperhouse". The foundry business established by John Harvey in 1779 at the opposite end of the estuary, gave the name of "Foundry" to that area. The enterprises brought to the town important engineers like William West, Arthur Woolf and others.

⁷ Cahill, 2000:22.

The CCC built up a large work force and the population of the parish grew from about 400 in 1750 to over 1400 by the turn of the century. It became the only large scale copper- smelting business in Cornwall and later its prestigious iron foundry manufactured some of the largest Cornish beam Engines. The company's contracts extended not only throughout the breadth of this country but as far as Spain, Jamaica, Australia and Odessa. Harvey's Foundry was involved in projects of equal importance, for instance it built the first Cornish Boiler to be used at sea and developed a consistent fleet of merchant vessels. CCC was well established in the area before Harvey arrived in 1769 and both companies would have existed in harmony having different core businesses, however, CCC had extensive merchant trading interests and by acquisition and strength maintained a virtual monopoly in that regard. It was only after Harvey also set up a merchant trading concern that enmity broke out.

Large quantities of silt and sand were deposited in the estuary due to tin streaming began at least 4,000 years ago and mining activities in the 14th century. There was also an inherent problem with drifting sand in the area. When CCC started smelting and trade increased, measures had to be taken in order to accommodate the industrial activity and allow larger vessels to enter the port. In 1768 a series of gates and tidal pools were built to control the silting by sluicing it out on the ebb tide. This was followed in 1791 by the construction of a deep water channel linking Copperhouse Dock to the harbour⁸.

The quay walls constituting the earlier outline of Carnsew Dock remain today mostly buried as they run along the northern boundary line of the Jewson site. In the same area it is understood there was also a pool for the seasoning of timber but this was believed to have been removed .

From 1740, the increasing demands by local mines and trades for coal, rope, and bricks stimulated the construction of the Merchant Curnow's quays at Copperhouse Creek and Carnsew quays. The south shore of Copperhouse Creek was one of the first areas to be developed as a consequence of mining industry expansion [Fig.6].

The development in Foundry had already started in 1758 when a number of residential properties were built in association with the new quay at Carnsew. However, in comparison to Copperhouse the western areas of the harbour were developing more slowly until Harvey started his foundry in 1779. The Foundry always had a very close relationship with the harbour, not just for its proximity. Initially because the hill fort was strategically located to control the estuary, but later because the sites became the strictly connected with the expansion of the Harvey's Company, which tightly controlled the development in the area. In the beginning the Harvey did not own the area which is today the Foundry Yard car park and constitute the southern part of the subject site. A series of acquisitions, often acrimonious, allowed Harvey to gradually take control of the Carnsew and Penpol areas; while CCC expanded to control Copperhouse and the North and east quays.

⁸ Hayle Harbour Advisory Committee "Hayle Estuary Management Plan 2008-2013", 2008.

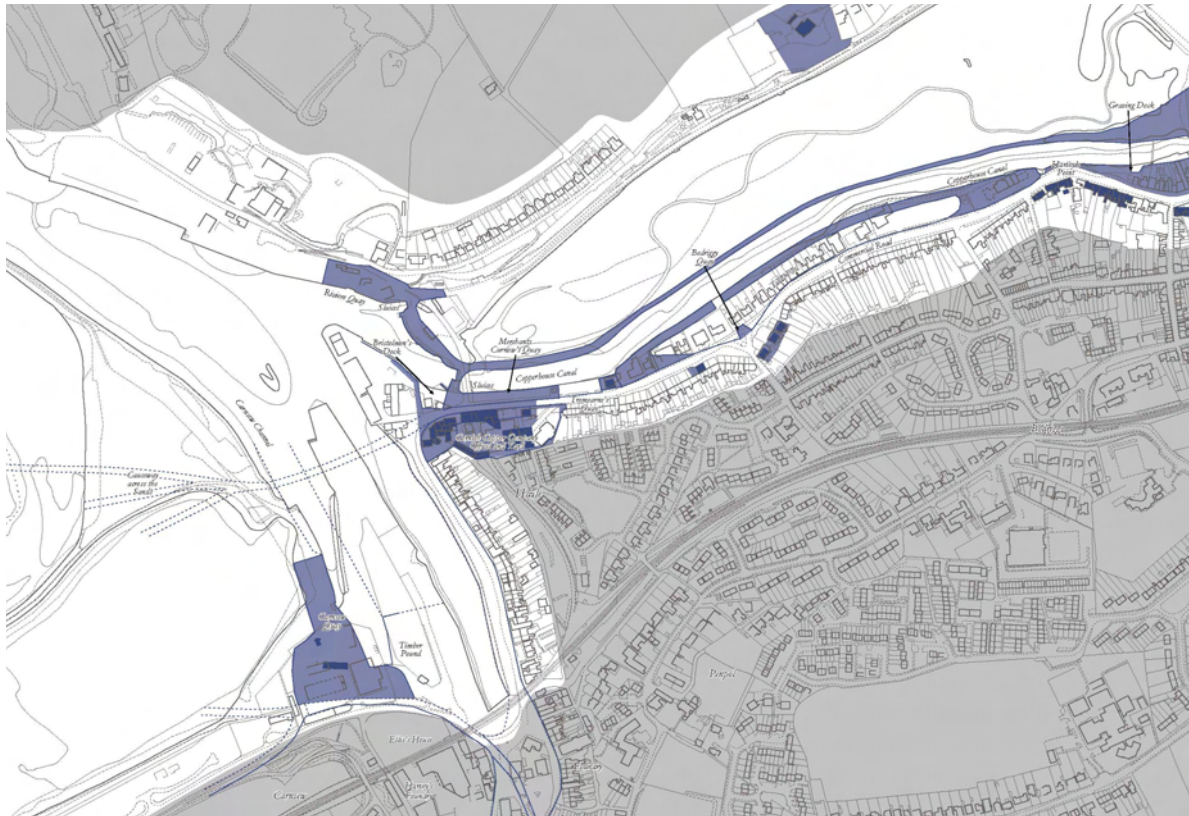


Fig. 6 2000 OS map, in blue pre 1810 buildings and plots, extracted from Cahill, 2000:Fig.5a.

3.3 The 19th century: the golden years of Harvey & Co. and decline of mining industry

In the early 19th century the tin and copper mining expanded, which led to a growth of the use of steam engines. The exploitation of the copper reserves on a large scale had begun in the 1770s with the opening of the Wheal Alfred in 1793 and by the early 19th century the mine employed some 1500 people accounting for the 3rd largest copper mine in Cornwall. Other important mines were located on and around the edges of the Towans to the north of Copperhouse Creek (i.e. the Wheal Dream mine) and further away in the Godolphin/Wendron area (i.e. the Wheal Vor mine). The Wheal Vor mine was particularly important to Hayle, as it was the first to turn to steam power in the early years of the century and Harvey's and CCC were the biggest stakeholders. Subsequently, its closure in 1860 largely contributed to the biggest single financial loss in Cornish mining history. The vicissitudes of the Cornish Mining industry are legion, dependant entirely on the vagaries of the copper price and the manipulation of various vested interests. There was a major depression at the time Harvey started up in the late 1770s-8- after the discovery of the Parys lode on Anglesey, which was the instigation for both Harvey and CCC to venture into merchant trading rather than rely entirely of founding and smelting respectively. But that crisis also became beneficial as the demand to increase efficiency in order to compete led to innovations and improvements in technology, particularly the high -pressure steam pumping engines.

The copper mining industry collapsed in 1866 and a large percentage of Cornish copper mines closed, subsequently tin mines became the most important, and the 1870s saw the peak of production. However, from 1874 the production declined as Australia and Malaya produced large outputs of tin from numerous shallow deposits. Eventually the mining industry declined in Cornwall following a drop in the tin price, decline in investment, and a shortage of miners due to emigration.

3.3.1 The construction of the South Quay peninsula

The development patterns of Foundry, Copperhouse and the system of Quays of Hayle Harbour were established in the first half of the 19th century, which corresponds to the great period of expansion of both the Harvey's Company and CCC. The fierce competition between the two companies "become locked in a bitter and drawn out dispute over rights to the waterfront at Carnsew and Penpole"⁹ and was essentially concerned with the merchant trading activities that demanded such space. The dispute concerned the rights of use of the foreshore due to the lack of a proper quay and boat access by the Harvey's Foundry, and the CCC anxieties to have wharves which were suitable to load and unload copper ores and coals as well as the vast amounts of materials and goods being traded to the mines, associated businesses and the general populace. This affected the development of the harbour and quays, and the rivalry between the two businesses also shaped the different characterization and identity of Copperhouse and Foundry.

It is recorded that in 1813 Harvey renewed activities in Carnsew after a period of paralysis due to legal restriction, and was about to deepen the channel in the Penpol river between the Foundry and the lower ford, located nearby a building known by the name of Millwood's house [for the location refer to Fig 7, point 4]. At that time the Penpole River had a firm gravelled bed and could be crossed when tide was out, though from the ford to the Foundry the river bed was a mixture of soft sand and mud¹⁰.

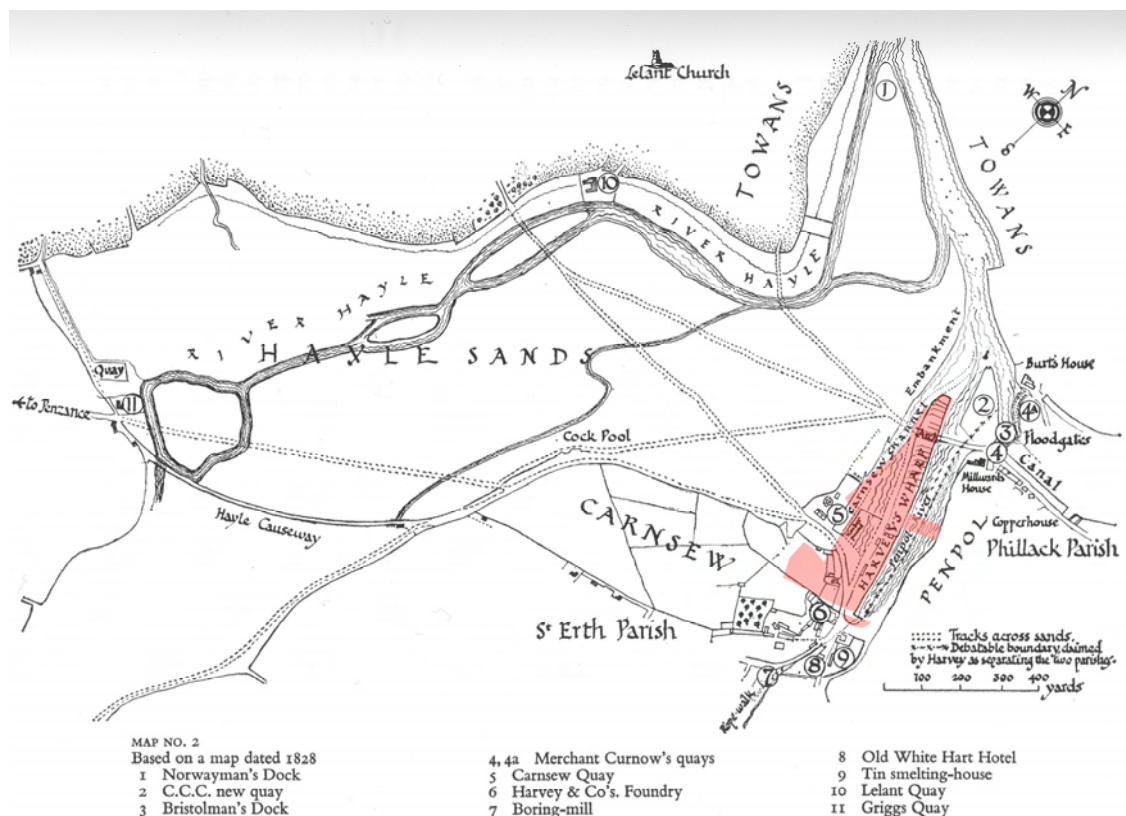


Fig. 7 Map based on a map dated 1828 OS (Vale, 2009 [1966]: 129). The subject site in red.

⁹ Cahill, 2000:25.

¹⁰ Vale, 2000:104.

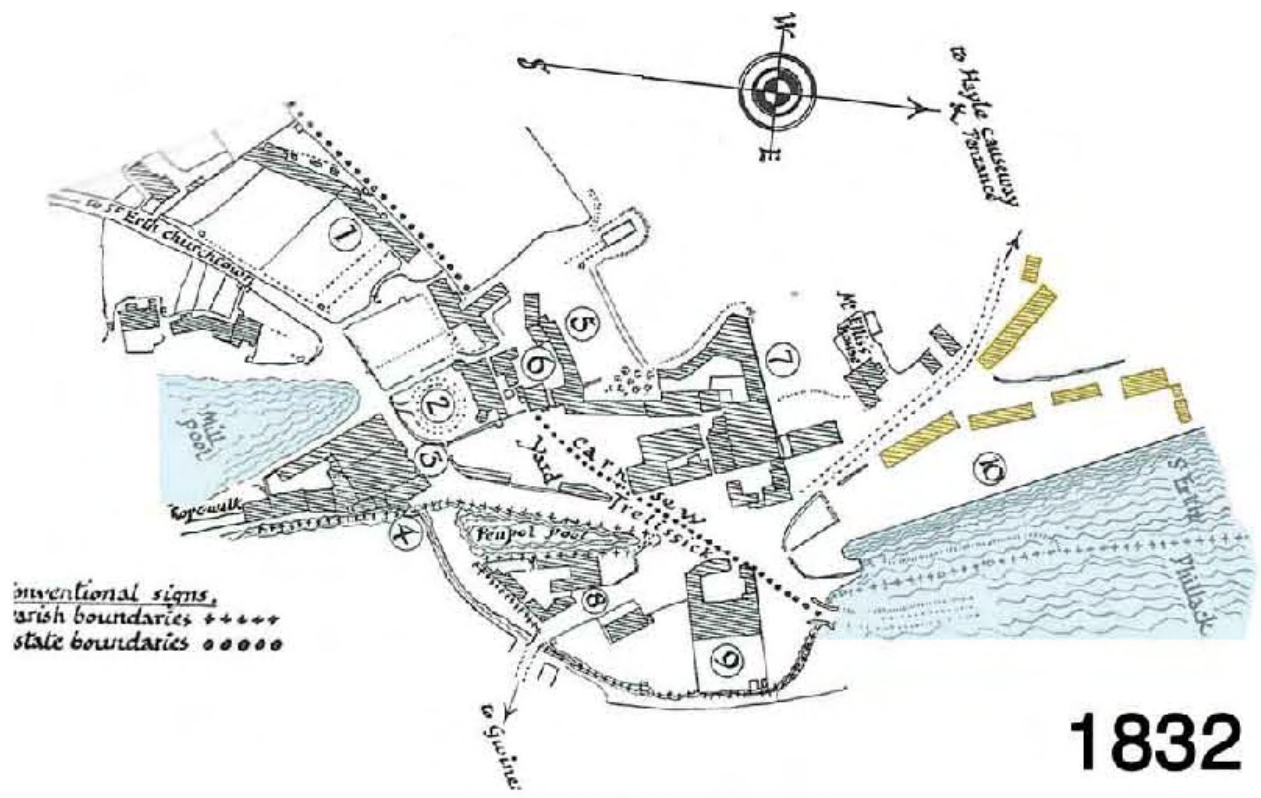


Fig. 8 Map showing the 1832 layout of South Quay and immediate environs. In yellow the buildings standing on Harvey's Wharf at that time.

In 1816 the Harvey Foundry was rebuilt to a much larger scale in order to cope with the increase demand for its products. The following year turned out to be a crucial moment for the history of Harvey's company and for the South Quay development as well. After twenty-eight years of tenancy of the Carnsew Quay and Cellars to the Cornish Copper Company, the contract expired. Though the CCC made a determined effort to secure the renewal of the leases, their application was not granted and Harvey obtained a thirty-five years lease instead.

When Harvey came in possession of the quay, the channel was silted up and unusable as a route to the sea. The plan was to straighten and deepen the channel of the Penpole River and build beside it a long quay which would reach even beyond the lower ford to the deeper water near the entrance of the river. The expenses for the work are first shown in the accounts for May, 1818. The activities around the shaping of new peninsula went not unchallenged, CCC continued to treat the rights to the waterfront, but Harvey continued to deepen the channel south of the ford until vessels up to 150 tons burden could pass it to the Foundry on a high tide¹¹.

Soon after the work on the Foundry channel was completed, Harvey started to work on its large wharf and he proceeded to build what was considered at that time a quay on a scale far beyond anything the Cornish Copper Company had anticipated¹². The new quay was not completed until late 1819. Harvey was eager to offer prospective clients every inducement to give him their custom in preference of that

¹¹ Ibidem: 127.

¹² Ibidem: 128.

of the Copper Company. The wharf was now ready to receive copper ores and it was situated nearer the mines than the CCC wharves were, and most importantly allowed the expeditious loading wharfage of the vast range of goods for merchant trading, with warehousing. It also allowed convenient embarkation for passengers on the boats for South Wales and Bristol.

By 1828, the date of the map of Carnsew [Fig 9 and Annex D -Table 1], the South Quay peninsula had been built in to cover a thin long area next to a timber pound, and at that time the quay would appear almost like it is today, except for the archway which Harvey made by the upper ford to give through passage between it and the track to Penzance over the sand¹³. When building the 440 yard long quay, Harvey had to incorporate a tunnel through it, opposite Passage Place, in order to maintain the established rights of way across the sands to Penzance. This was later filled in when he deepened the channel making no longer possible to ford.

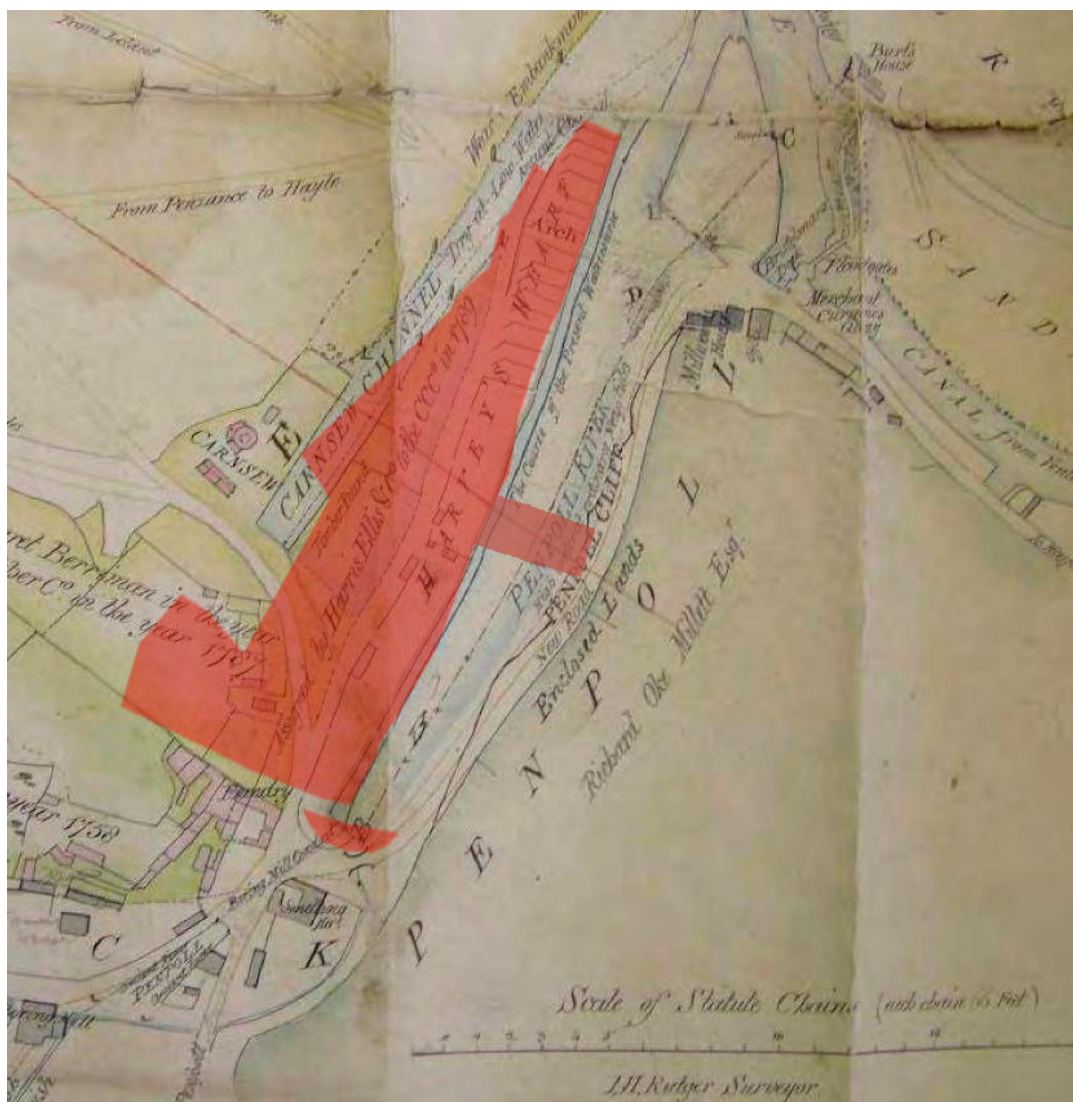


Fig 9 1828 Map of Carnsew (the site in red). This shows the Carnsew Dock and Channel, which was still “Dry at Low Water” with some sparse buildings on the Wharf. Penpol River is still only a stream with a shallow bed which can be forded through the “Arch” in the north end of the Quay.

¹³ Ibidem.

In the meantime the CCC extended North Quay, improved the sluicing capacity of Copperhouse Pool and finished their new quay (East quay on Bristol man's Dock). The cliff was cut back and a road was built above the beach, on reclaimed land by using copper slag waste, which was occupied on one side by houses and row of small shops overlooking the harbour. More housing in Phillack were built and with the acquisition of plots and quays along the southern shore of the Copperhouse Canal more houses were constructed similar to the middle-class houses in Penpole Terrace.

3.3.2 South Quay development and changes to the estuary configuration

Harvey's Foundry built the first Cornish Boiler to be used at sea and developed a fleet of merchant vessels for a "Steam Packet" service, plying mainly between Hayle and Bristol. By 1827 the Harvey's held the whole of Carnsew with sole rights after the last remaining third held in sub-tenancies by the CCC expired. The 1830s was a most eventful epoch in the history of Harvey Company, from which it emerged with augmented strength and was able to compete with the foundries and engineering work of the greatest industrial centres in the world.

Rivalry between the two Hayle companies continued and another testimony to it are the various granite stones to be found around the town - some incorporated in the old clapper bridge across Lethlean Lane for example - bearing the initials "H" or "CCC", not as the casual observer might suppose, representing "Hayle" and "Cornwall County Council", but staking out the boundaries of the two companies. Only in 1830 the concluding hearing of the dispute, held at "The Hayle Hotel" (built in 1825, subsequently renamed "The Penmare Hotel" and demolished in 2004), ended the contention. Though Harvey owned wharves on both sides of the Penpole River, the Copper Company was still able to make nuisance by discontinuing the daily scouring of the main channel. They operated the sluices only when it suited their own purpose that was when they had to prepare for the arrival and departure of one of their deep vessels. In the intervals the sand accumulated and even on spring tides there was not enough water for vessels to cross.

Shipping was increasingly augmenting the industrial activities on the South Quay in comparison to the Copperhouse activities. Harvey pushed for CCC to open regularly their sluices to keep the channel clear but decided to provide for his own sluicing. He created a tidal lake for the storage of sufficient water to scour the channel as effectively as the Copperhouse sluices, but to be independent from their working. The operation was costly and required a huge embankment to be made extending from Carnsew Quay down to the junction of the main channel with the Hayle River at Griggs Quay, adjacent to the causeway, which conveniently formed one of the retaining sides to the reservoir. Harvey's foreshore rights were limited to rights of way and the placing of buildings above ground¹⁴.

Rights to foreshore, but also the navigability of the estuary were important matters for the company. Neither the foundry nor the mine merchant trading business could have been sustained by land carriage. After some years of negotiations with the other owners of Carnsew, in 1833 Harvey was able to set to work on the huge task that would give him the freedom of using the estuary as it were the needs of its company. Before the end of the year 1834 the company completed the construction of the 37 acres impounding pool at Carnsew, with its sluice gates tunnels and curved granite training wall. In place for over 130 years the sluices operated with the tides and in contrapuntal conjunction in order to keep the Carnsew channels clear of sand.

¹⁴ Ibidem: 204-205.

By 1842 [Fig.10 and Annex D – Table 2], the harbour configuration was completed. In the following years changes were made only to the perimeter of the peninsula, by introducing new slipways which were adapted to meet requirements of the ships ordered. The original Carnsew dock now buried below the Jewsons site, remained unchanged.

In the early 1830s the small Harvey fleet was used solely for doing the Company's work and not available for charter. However, in 1832 things changed and Harveys added another department to its work and they become shipbuilders. By 1834, the company had created a substantial ship-building operation at Carnsew, where eventually vessels up to 4,000 tons were constructed and launched. The ship building enterprise demonstrates the flexibility and opportunism of the Harvey Company to respond to market conditions and exploit its engineering expertise and facilities.

As in the foundry the volume of business was steadily growing and a extraordinary variety of goods were being turned out, the South Quay went through development and a series of structures and buildings were constructed on the peninsula, as the 1840's map shows. The bulk of buildings were situated on the south and west ends of the quay, and incorporated workshops of different kinds, as well as the ship yard, while the north and east sides were mainly dedicated for storage, distribution of materials and workers activities. The buildings were probably simple and strictly functional, reflecting the necessity to adjust quickly to the changing needs of the company activity and specific requirements coming from the construction of different ships.

In terms of housing development Harvey's had less incentive to provide accommodation to workers and had little opportunity to acquire land on the scale that the CCCo had done in the 18th century.

In the meantime, since 1825 the infrastructure of Hayle improved dramatically. An Act of Parliament enabled the construction of a bridge and causeway across the sands at the western end of the estuary, continuing the road through to The Royal Standard Inn at the end of Penpol Terrace. Before that there was no direct link from Hayle to Penzance and the Royal Standard, then known as "Passage Inn", was the departure point for a hazardous trek at low tide or a ferry trip at high tide across the sands to Lelant. With a second Act Hayle obtained its own railway. Both the foundries at Hayle and Copperhouse were closely concerned in the promotion of the railway scheme and, as two alternative routes had been surveyed, each party tried to secure the adoption which best suited their business.

By 1837 the Hayle Railway was nearly completed, except for the short stretch linking Hayle Foundry with the rest. Only the drawbridge over the narrow strip of water was still missing. At that time the Hayle Railway, as showed in the Tithe map [Fig. 10], ran from Foundry Square along Penpol Riverbanks (now a harbour side walkway) across Copperhouse Pool sluice gates to continue along the edge of the pool (now King George VI Memorial Walk) towards Loggans and beyond to link up with the various mining areas of the district. Along the route as it crosses Copperhouse Saltings a stone bridge was constructed in 1837, reputed to be the earliest surviving railway bridge in the country. The earlier railway station was located where the memorial garden known as the Isis Garden is standing today.

In 1846 an Act had authorized the development of the West Cornwall Railway and enabled the construction of the Brunel viaduct across Penpol Creek, which was opened in 1852 [Fig. 11a]. The original timber viaduct was rebuilt in stone in 1886. with a station above the town at Penpole which replaced the one near to the Foundry. The crossing of the same road twice by the railway (once the A30 and now the A3301) is very unusual and apparently is unique in the UK. From this station a new branch line was extended to meet the old one at Copperhouse Creek drawbridge. This allowed

connection with the original low level railway and its station which then formed part of the Hayle Wharves branch. [Fig. 11b and c].

The estuary configuration was also changing following the lock-gates sluices made by the CCC in 1788 [Fig.12]. The daily sluicing when the tide was out to scour the channel in the main stream had the effect of washing away the sandbank accumulated in the course of time. So the river started to flow out at a point to the west of Burt's House. This diversion had caused a deposit of sand to be built up over its old course which formed a projection on its eastern margin roughly the shape of a triangle.

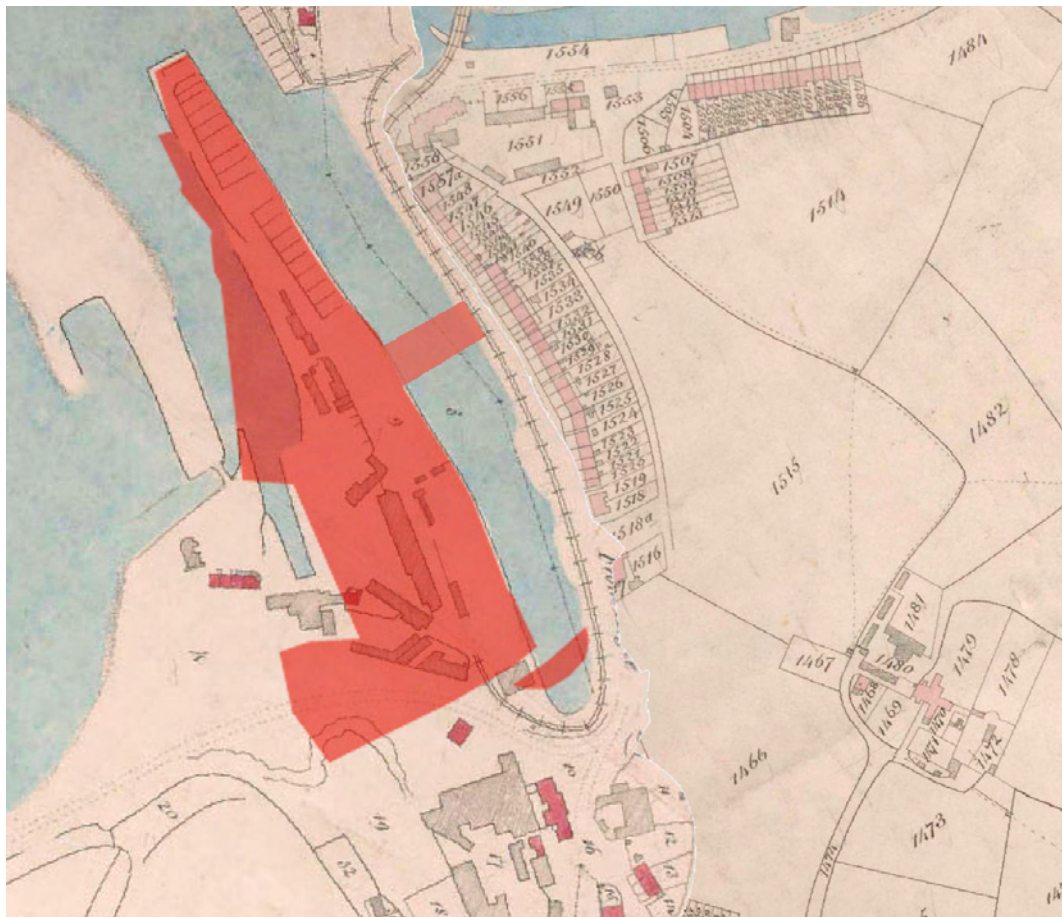


Fig 10 1840 Tithe Map (the subject site in red). Along Penpol Riverbanks the tracks of Hayle railway are shown terminating at south quay. Numerous buildings are shown on the Quay..

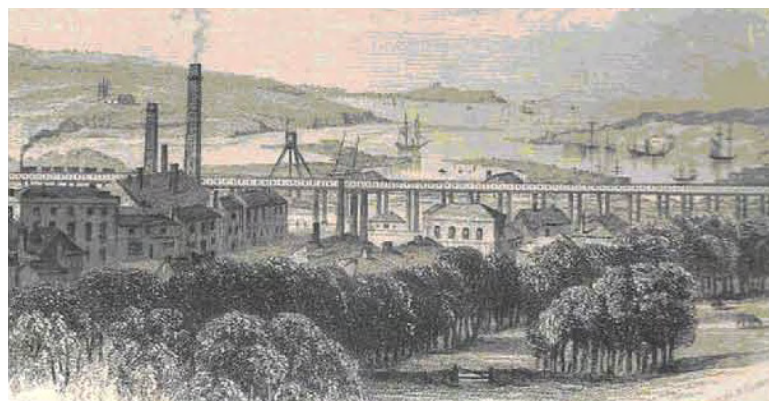


Fig 11a The town of Hayle c.1850, engraving by R T Pentreath (Noall, 1985: front cover). After construction of the viaduct.

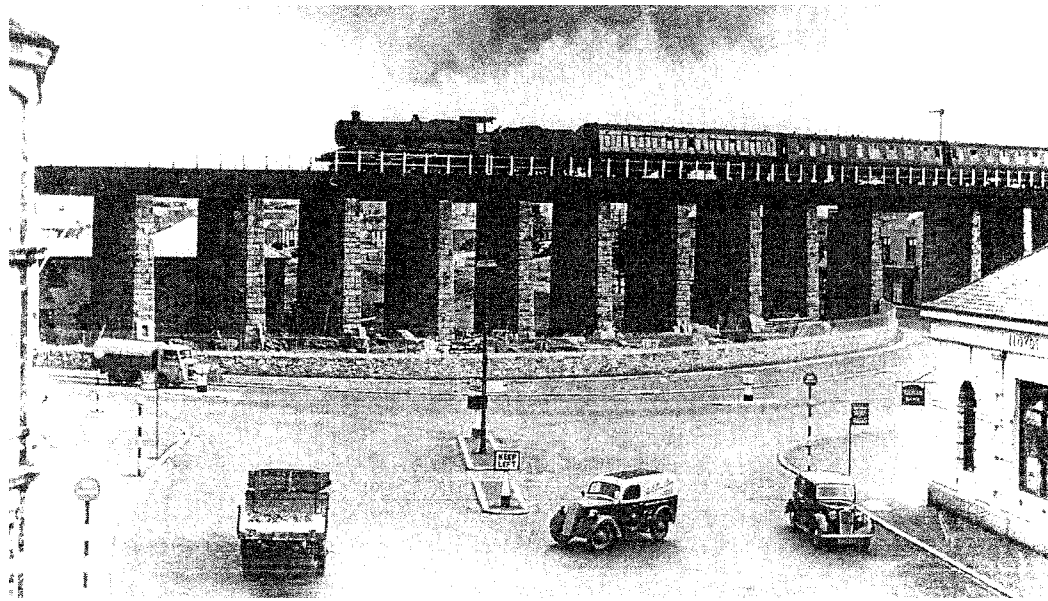


Fig 11b The town of Hayle c.1950, (Noall, 1985).

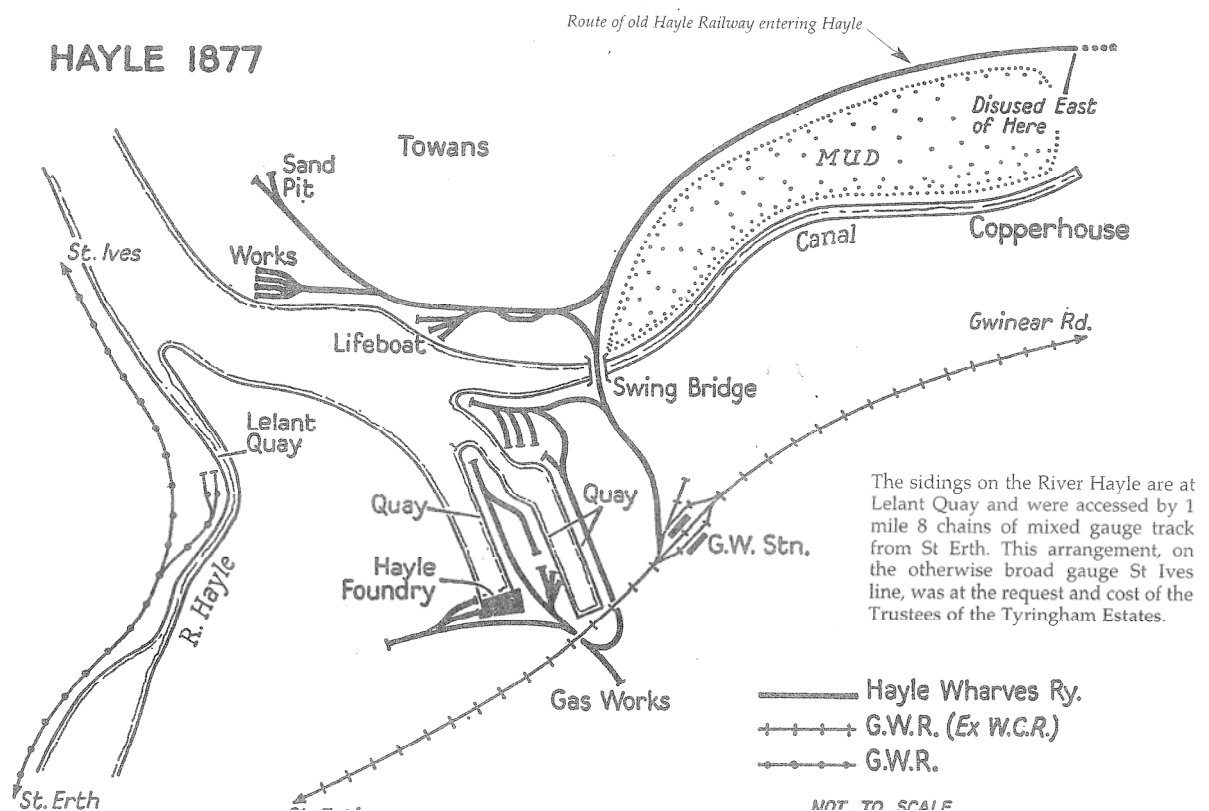


Fig 11c The West Cornwall Railway in 1877 (Jenkins and Langley, 2002).

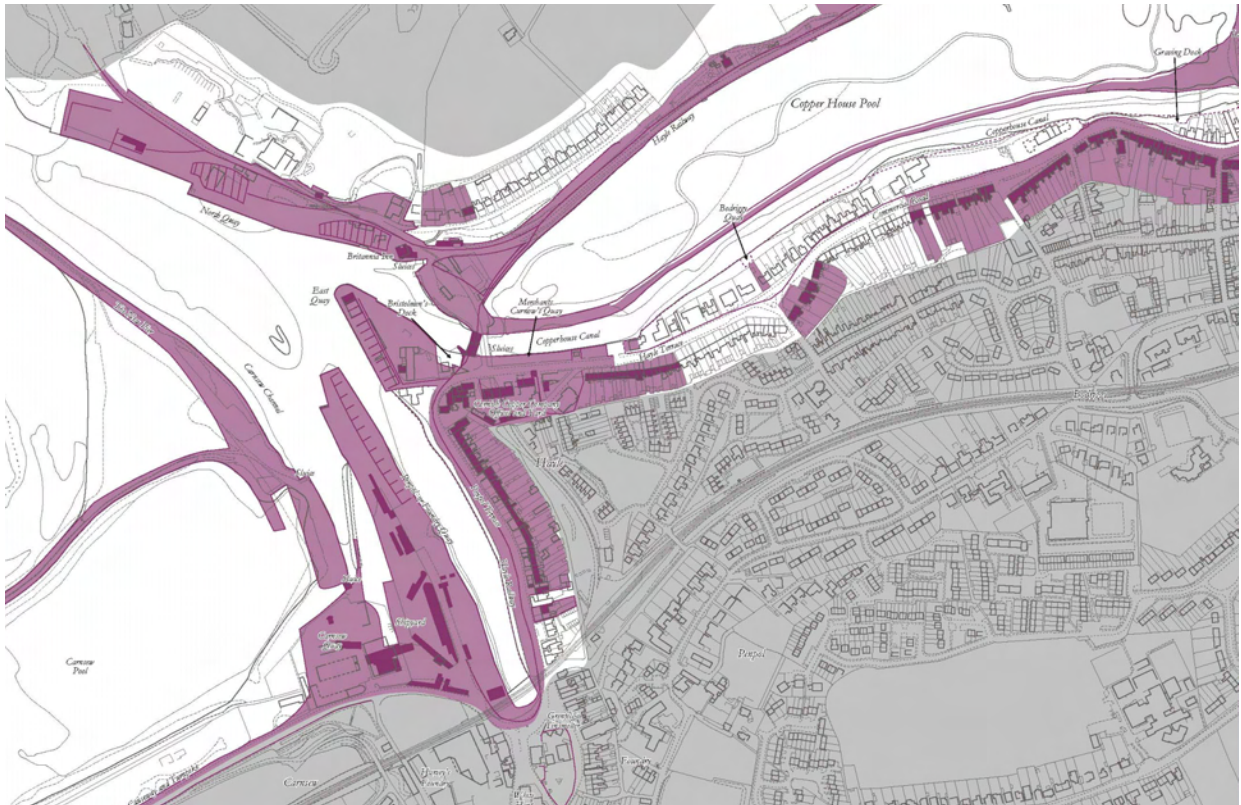


Fig 12 2000 OS map, in purple pre 1842 buildings and plots (Cahill, 2000: Fig 5b).

3.3.3 Shipbuilding in South Quay and new slipways

The years 1843-49 were very important for Harvey's. They enhanced the world wide reputation by building the largest steam engine in the world for the Dutch Government, including casting a 144" cylinder the largest ever attempted. The company's prosperity peaked around from 1820 to 1870, and in the same period the port of Hayle become extremely busy. By 1862 it had its own Customs House situated just beyond the Copperhouse Pool sluice gates, in what it is today the Hayle Harbour Office. In 1866 its own lifeboat, the "Isis", donated by the Oxford University Lifeboat Fund, made its first rescue mission in St. Ives Bay.

Sadly, despite its 1850s expansion into the building of ships up to 500 tons, the Cornish Copper Company did not escape the effects of the declining mining industry, and in 1869 closed down. Eventually Harvey's bought the works at very low price, but the foundry itself was dismantled.

Though ore was shipped from South Quay, the quay was dominated through the 19th century by the Harvey's shipyard, which provided mainly specialist ships for the transport of their Cornish Boilers and the coastal trade. The quay continued to be intensively used for wharfage. As shipbuilding was expanded, new slipways, boiler works and machine shops emerged on the Harvey's wharf. Between 1840 and 1878-79 (Fig 12 and Annex D – Tables 2 and 3) the quay edge was adjusted by introducing a new slipway, which was positioned closer to the boiler works and the expanded shipyard – in order to accommodate and facilitate the construction of larger ships. After the new slipway had been laid (around 1890)¹⁶ Harvey's made a bid for contracts of greater tonnage and by the end of 1891 four

¹⁵ Cahill, 2000: 25

¹⁶ Vale, 2009:318.

cargo ships were launched, including the 4000 ton SS Ramleh – the largest ship ever built in Cornwall. With this ship the yard competed on a national level with other yards. During this period the buildings along the quay were extensively modified.

The 1880s map [Fig 13] shows in more details how the wharf was organized around that time, reflecting the expansion of the shipbuilding activity. South Quay still bears witness to the former activity below ground, (refer to the archaeological report for detailed evidence) with slots created along its length to take loading shoots. The fact that the wall did not run in straight line, but it was (and still is) scalloped, reflects the intensity of the commercial activity of the harbour, which allowed ships to be moored with their bowsprits overlapping, thus allowing more ships to be brought to the quay, maximizing the capacity of the port for trading goods.

As Hayle had flourished during the nineteenth century years of mining expansion it then started to decline with the rest of the country when the recession set in. By the end of the 19th century large-scale heavy engineering works were in decline and also shipbuilding stopped in 1893. Harvey closed the heavy manufacturing element of the foundry in 1903, but Harvey's Wharf was used to serve the other activities and industries of the company as it expanded its merchant trading activities.

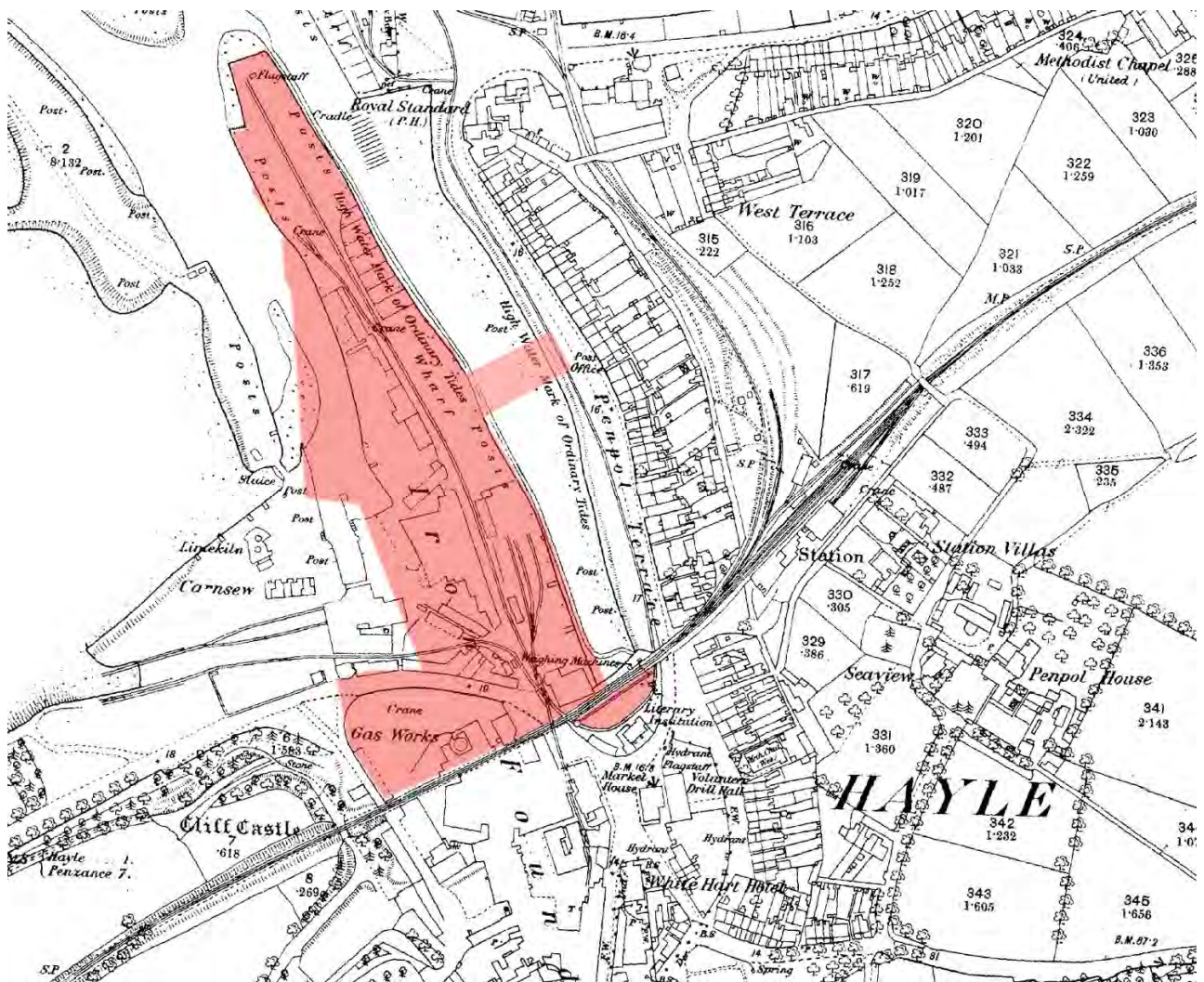


Fig 13 1878-79 OS map (the subject site in red).

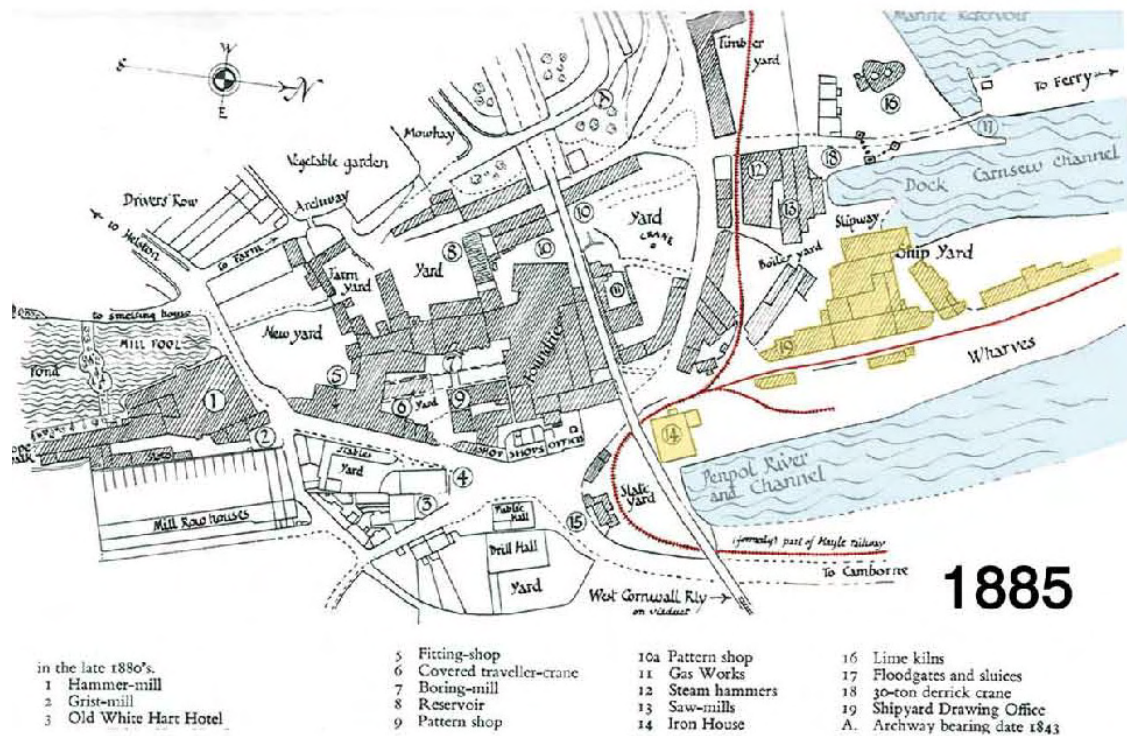


Fig 13 Map based on a map drawn in the late 1880s (Vale, 2009 [1966]: 305). In yellow the workshops and buildings standing on Harvey's Quay in 1885. [MORE NEEDS TO BE COLOURED TO THE LEFT OF THOSE SO DEPICTED HERE. THE SITE GOES DOWN TO THE ROAD]

3.4 The first half of XX century: trading in building materials and war time

In spite of the recession, for most of the 20th century Hayle remained an important industrial centre and the harbour continued to be a vibrant and active place. With the establishment of new industries and diversification, the town was not anymore dependent upon the prosperity of mining. In fact, during the first decades of the century the harbour still attracted other industries such as the Electricity Power Station (built in 1910 and closed in 1977), which was the only one in Cornwall.

The shipyard was still used, but it had been transformed into a major builders' merchant and trade site. By 1907 [Fig 14 and Annex D – Table 4] a new slipway was created along the quay edge, remains of which are existing below ground, and workshops connected with boiler works and shipbuilding demolished.

The built form of the quay had changed considerably as it became an important centre of distribution where coal, timber, bricks, tiles, slates, lime and cement were stored and distributed. Harveys had set up depots all over Cornwall and the west as semi-autonomous centres, each under a branch manager with their own sawmills and horse transport. Steam traction was not introduced until 1918, although Harvey's 1880 catalogue offers engines for sale..

In 1949 the trade was enlarged to include interior domestic fittings, kitchen equipment, decorating materials of all kind and heating appliances. A showroom was also open in the converted

[illegible]

The harbour also played an important role between the Wars (Fig. 15) and also during the World War II. The Carnsew quays were used to break-up ships¹⁸, during the interwar years and provided harbour facilities for the Royal Navy. Numerous small slipways appeared to construct landing craft for the D-Day operations. Beside, guns and other war products and bromide for aviation fuel were produced in Hayle. As the large beaches on either side of the estuary were potential sites of invasion, defensive measure were taken to protect the power station, the harbour and the guns production at the entrance to the estuary and along the beaches, which confirmed the strategic role played by Hayle during the war period.

¹⁸ It appears that the port of Hayle was involved with ship breaking from the 1920s (Naval-History.Net) and through the II World War (Cahill, 2000).

After the war T W Ward, who had bought Harveys foundry in 1903, continued to break ships, particularly those now “surplus” from the war, into the 1950s. During the 1950s and 1960s the harbour continued to import general cargoes, especially coal, grain and fuel, but also all kind of building materials. An average of 400 ships a year still used Hayle port. In fact, the Harvey & Co continued to act as builders’ merchants, and merged with United Builders Merchants in 1969, trading as UBM Harvey.

Throughout the first half of the XX century and until the late 1960s, when the South Quay acted as centre of distribution of building material, the wharf did not go under major changes. The 1936 OS map [Fig 16 and Annex D – Table 5] and the 1968 aerial view [Fig. 17 and Annex D – Table 6] confirmed the existence of both slipways and an arrangement of buildings for storage of materials along the north-south axes.



Fig 15 1931 photograph of the harbour showing a substantial Naval vessel possibly for breaking with two smaller vessels in the dock and slipway. The Penpol Creek side has a series of cargo ships occupying the entire length.



Fig 16 1936 OS map (the subject site in red). The shipyard buildings have been removed leaving a semi-enclosed open space adjacent to the dock and slipway.

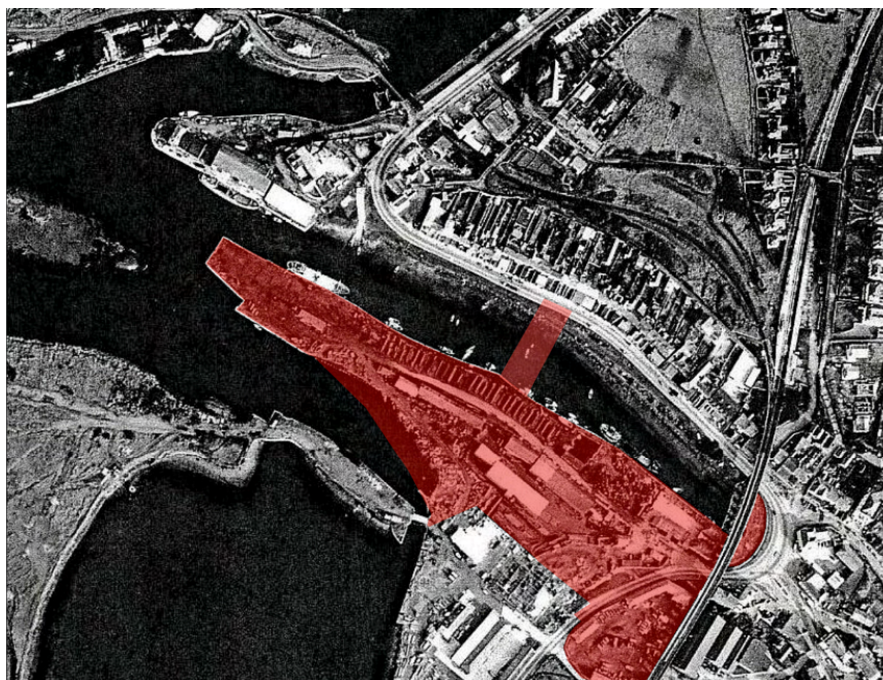


Fig 17 1968 aerial photo (the subject site in red).

3.5 The second half of the XX century: towards decline

Maritime trade decreased as industry declined and in 1973 the power station closed. The harbour eventually closed to commercial shipping in 1977. The Harvey & Co remained the owners of Hayle Harbour and much of the surrounding land, trading as United Builders Merchants Harvey. Eventually the entire port of Hayle was put up for sale in 1983. Between 1989 (Annex D – Table 8) and 1998 (Annex D – Table 9), the Harvey's Wharf was completely cleared of buildings by the new owner, Tekoa. The site was then sold to Peter De Savery's development company, Aldersgate, in 1993 before passing on to Rosshill and Curruthers in the late 1990s.

The harbour re-opened for a seasonal fishing port in the 1990s. However, as the sluicing gates fell into disuse in 1972 and since the silt built up, larger vessels could no longer use the port.

Today it has a different character not only because the buildings and structures connected both to shipbuilding, merchant trading and building materials are gone, but also because the harbour is not anymore a place of fervent activity as it was since the early 18th century until the late 1960s. However, the existence of the quay itself, with its organic perimeter and the remains of the walls is the most important testimony of the history of Hayle Harbour, as it is the link between all different types of activities, uses and socio-economic development that not only the yards and wharves underwent, but that the town experienced.

3.6 Summary of historical development of South Quay

- In the early 18th century Hayle started to expand and become an industrial town in connection with the smelting of tin and copper.
- In the second half of the 18th century the Cornish Copper Company and Harvey and Co., the two most important enterprises in the area established and flourished, bringing merchant trading activities, engineering and smelting.
- 1817 the Harvey & Co. obtained the lease of the South Quay.
- 1817-1819 South Quay was built, covering a long and thin area next to a timber pound.
- The 1830s were the most eventful epoch in the history of the Harvey Company, their foundry and engineering work competed with greatest industrial centres in the world.
- In 1834 Harveys completed the construction of the Carnsew Pool together with the sluice gates and the sluicing channel, designed to periodically scour out the Carnsew channel to allow larger vessels to enter.
- Between 1828 and 1840 the quay was extended to incorporate the timber pound which was filled in and a number of buildings clustered at the southern end connected with shipbuilding and engineering.
- In 1837 the Hayle Railway was nearly completed. It ran from Foundry Square along Penpole Riverbanks across Copperhouse Pool sluice gates and continued to link up with the mining areas of the district. The station terminus was situated in what is today's Isis Garden.

- In 1852 the West Cornwall Railway built the Brunel viaduct across Penpol Creek to extend the service to Penzance. In the same year a new railway station was erected at high level above Penpol. In 1886 the timber viaduct was replaced by the stone one, still in place today..
- In the 1840s the Harvey & Co. built the largest steam engines in the world exporting them to many countries and Hayle achieved an international reputation.
- Around 1879-1890 the quay edge was changed and a new slipway constructed closer to the boiler works and ship yard to facilitate the construction of larger ships. At this time a number of buildings cluster near the boiler and ship yards.
- In 1866 the copper mining industry crashed, and mining reverted to tin, however at the end of the century the mining industry declined even further with many closures and emigration of miners.
- Harvey's shipbuilding stopped in 1893 and heavy foundry manufacturing and engineering was ceased in 1903 when the foundry was sold. The shipyard continued as a repair dock and breakers, and continued the trading activities concentrating on builders' merchant trade.
- In the 1920s and until the 1950s the quay was used for ship breaking, and wharfage .
- Harvey & Co. merged with United Builders Merchants in 1969. The harbour was closed to commercial shipping in 1977. The port was sold in 1983.

4 ARCHAEOLOGY

4.1 Archaeology

4.1.1 Background

Records held by Cornwall and Scilly Historic Environment Record (HER) show a number of sites and monuments on and around South Quay. Cartographic evidence indicates the presence of a number of slipways together with other infrastructure related to the activity of the port, which is backed by photographic evidence from the 19th and 20th centuries.

Two consecutive trial evaluations were carried out on the South Quay to further inform the development proposal. The principal aim was to establish the nature and extent of survival of the slipways and quay activity.

The following information has been extracted from the reports produced by Northamptonshire Archaeology following on-site trial excavations carried out in 2010 and 2011.(see also Archaeology and Cultural Heritage chapter in the ES).

4.1.2 2010 Trial Evaluation

The first archaeological evaluation was undertaken by Northamptonshire Archaeology during August 2010.

Seven trenches were excavated with the specific purpose of identifying the nature, state of preservation and precise location of the eastern slipway [Fig. 18]

Although the trenches were positioned too close to the edge of the quayside to pick up the buildings depicted by the historic maps, trenches 1-6 of the evaluation successfully located elements of the buried quayside and slipway, demonstrating that its northern reaches were constructed in granite ashlar similar to the exposed fabric at the very end of the South Quay, while a timber revetment was used further to the south.

A combination of desk-based assessment and the results from trial trench evaluation allowed the archaeological team to establish, with some degree of accuracy, the character and extent of the position and extent of the eastern slipway, the nature of its construction and the approximate position at which the timber slipway was inserted through the stone quay wall. The timber revetments of the eastern slipway were of varying quality where exposed, with exposed sections showing signs of disintegration through natural erosion and truncation from modern services.

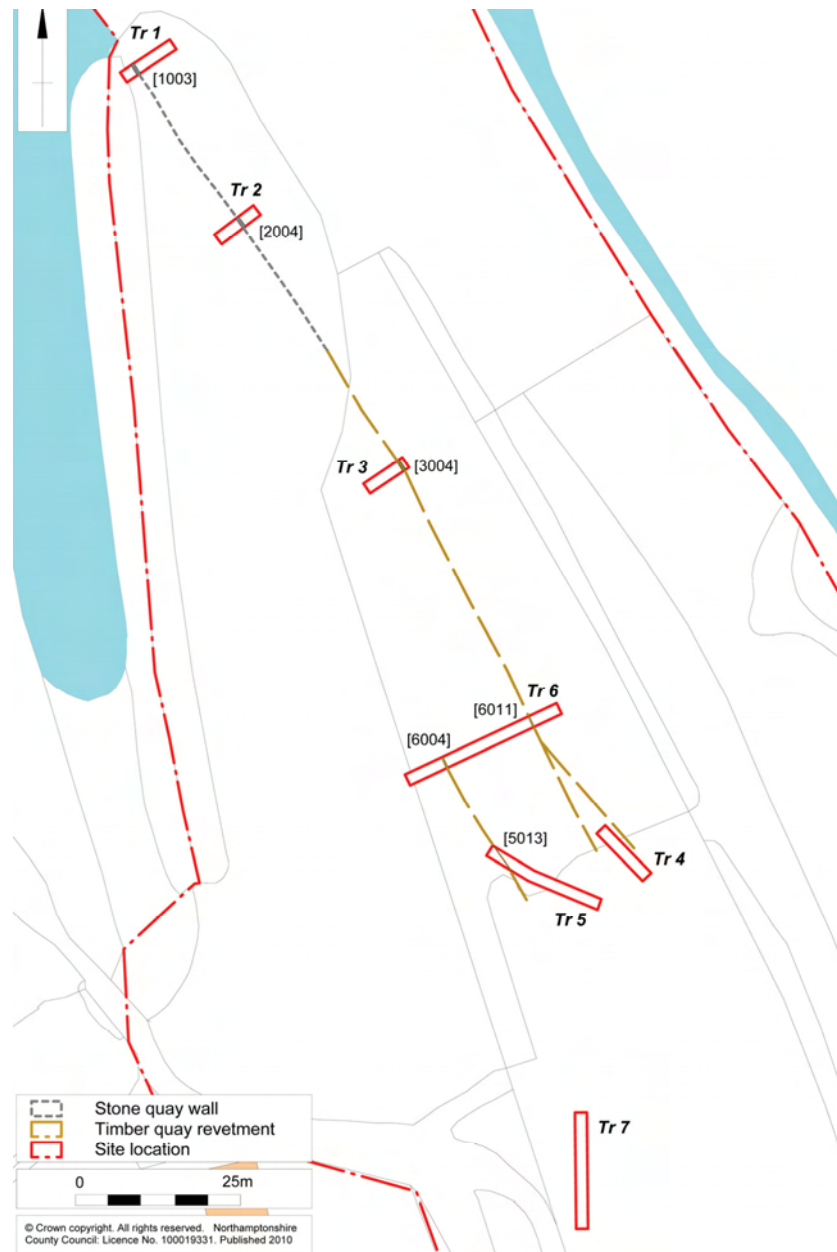


Fig. 18 Trench location plan 2010 by Northamptonshire Archaeology.

4.1.3 2011 Evaluation

A second phase of investigation on the site was undertaken by Northamptonshire Archaeology at the recommendation of the Cornwall Council's Historic Environment Planning Advice Officer (HEPAO) in response to the application for outline planning permission for commercial and residential development of the South Quay.

The fieldwork was undertaken between 20th June and 7th July 2011. Fourteen trenches were excavated to locate an in-filled quayside and slip way.

The general objectives were:

- To gain an understanding of the buried archaeological potential of the development site

- To gain an understanding of the nature, extent and depths of the deposited material on the development site
- To provide an impact assessment of the proposed development on the buried archaeology
- To provide a mitigation strategy for the buried archaeology

The evaluation located the precise position of the point at which the stone quay was cut and rebuilt to allow construction of the timber-lined eastern slip; further information was obtained on the layout and state of preservation of the eastern slipway and the nature of the middle slipway was determined for the first time. The varied nature of their construction and use was identified and, in conjunction with historical research, a clearer picture of the use and purpose of South Quay is emerging.

Although the investigation was unable to achieve a profile of Carnsew Dock due to the depth of the base being beyond the maximum reach of the excavator, it was established that the stone walls of the dock survive in good condition up to the boundary of the site.

Wall footings, crane bases and rail tracks (or the sleepers marking the tracks' former positions) confirm the locations of structures and infrastructure depicted on historic maps. These have the potential to provide further evidence of the changing use of the docks through the 19th and 20th centuries. It is particularly notable that the evaluations have confirmed that the quayside was continuously adapted with the changing needs of the owners and users.

The state of preservation of the stone walls was found to be good in all locations. As would be expected, the timber was less well preserved and in places had either rotted entirely away or been truncated or entirely removed by later service trenches.

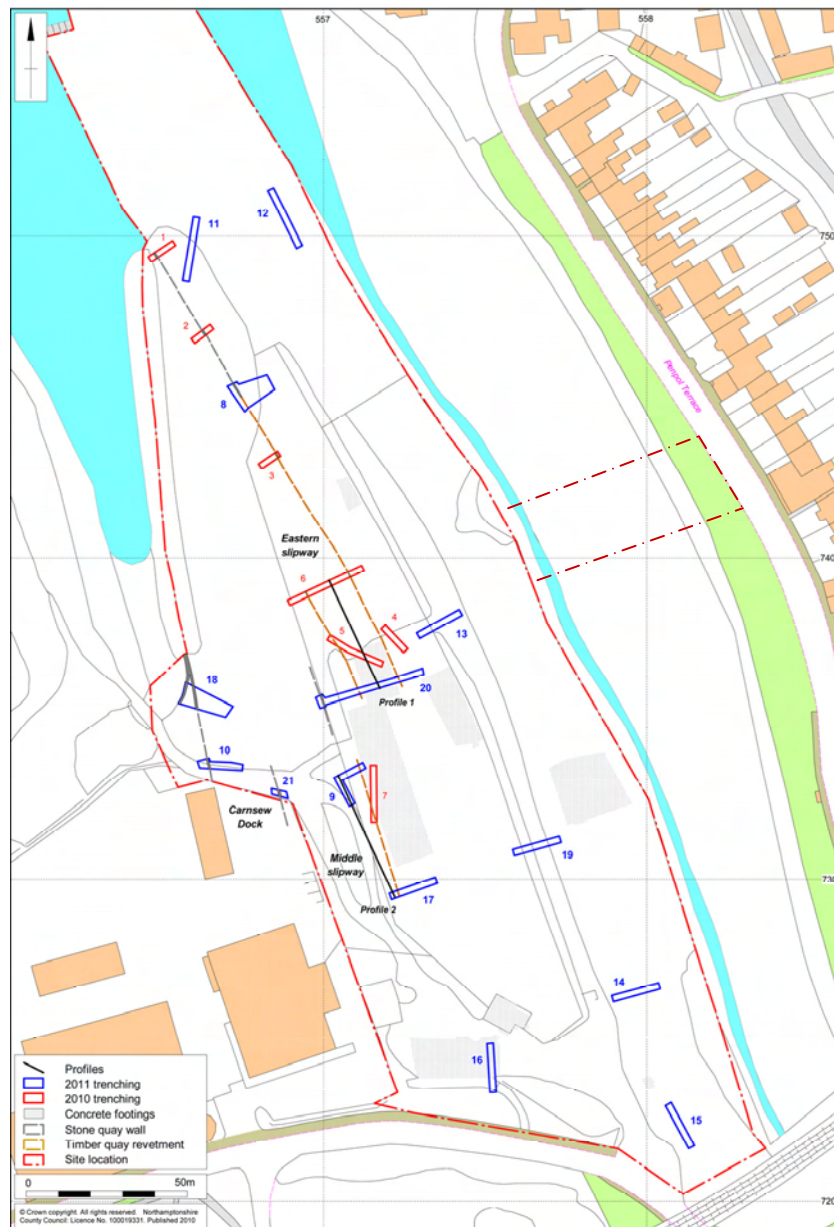


Fig. 19 Trench location plan by Northamptonshire Archaeology.
2011 trenches in blue, 2010 trenches in red.

4.1.4 Protection of archaeological remains

The impact of construction activity on buried archaeology has been largely assessed in accordance with the brief set by the HEPAO and the requirements of PPS5 (Policy HE6.1).

PPS5 recognises that the benefits of development may outweigh the impact on heritage assets in planning decisions, but these decisions must still assess heritage issues and ensure that appropriate mitigation strategies are in place. Foundation solutions that preserve the majority of an archaeological site in situ are an essential tool in ensuring that development can take place where archaeological remains are present. Mitigation methods need to be tailored to each particular site, and often the best way to avoid future damage to archaeological material is to reduce ground disturbance in areas where significant archaeology is located. Early consultation between developers and archaeologists can ensure that construction activities with the highest impacts, such as lift shafts, piles

or service trenches are positioned to avoid areas with the greatest archaeological sensitivity. This can include reusing areas where archaeologically significant deposits or structures have been truncated or removed by more recent disturbances, such as modern foundations or service trenches.

A detailed mitigation strategy will be prepared in consultation with English Heritage and the HEPAO to ensure that buried heritage assets are protected both during development and during use of the site. The development will also seek to enhance the historic environment by allowing greater exposure and public understanding of the buried remains and the changing nature of the quayside through time. This can be achieved in a number of ways, including display, publication, public talks and public art.

5 SPATIAL AND CHARACTER ANALYSIS OF THE SITE

A comprehensive understanding of the site would not be complete without a spatial and character analysis focusing on the South Quay site, complementing the information produced to date which has considered the wider context of Hayle. The document which addresses the spatial qualities and character areas of Hayle including and surrounding the site is the report “Hayle-Historic Characterisation for Regeneration” October 2005, produced as part of the Cornwall & Scilly Urban Survey project (CSUS).

The aim of the spatial and character analysis below is to provide information on how the place has evolved and how it is currently perceived in order to establish the site’s sensitivities and its capacity for development or change. This has been used to inform the design process.

5.1 South Quay

The South Quay is an elongated site, running from northwest to southeast, covering an area of approximately 3.4ha with general dimensions of 458m from the northern tip of the quay to the railway viaduct, varying between 24m to 116 metres in width, approximately. The site also includes Isis Garden south of the railway viaduct and the former gas works site to the south of west of the quay and Carnsew Road (B3301), which today accommodates the Foundry Yard car park.

Being formed over time by the two distinguished settlements of Foundry and Copperhouse, Hayle has evolved as a linear town, having no distinct town centre and therefore has no focal point. Rather, it is served by two separate shopping cores, based around the town's industrial heritage to which South Quay is a key contributor.

The access to South Quay occurs off Carnsew Road (B3301), at the southwest corner of south Quay. In spite of limited motorised traffic (allowed for the fisherman), pedestrian access is not prevented. Currently, and in addition to the activity of leisure boats and of a small fishing fleet, pedestrians are seen on site jogging, walking their dogs or just contemplating the harbour. The majority of the site (except Isis Gardens) is owned by ING.

The site today falls within the extended boundaries of the Hayle Conservation Area¹⁹ and it is within the boundaries of the Hayle section of the World Heritage Site Cornwall and West Devon Mining Landscape. Adding to this context, South Quay includes the following statutorily protected features:

- South Quay (ca. 1818), including south east side of Carnsew Dock (Grade II listed-14.01.1988).
- Carnsew Dock– only a small part falls within the site’s boundaries. Part of Carnsew Quay (Grade II listed-14.01.1988).

Aside from the listed structures mentioned above, other physical above ground remains of significance, which establish a direct historic relationship with the industrial port activities, fall within the site’s boundaries such as remnants of paving assumed to be associated with the former wharves

¹⁹ The Hayle Foundry Conservation Area was designated on 6th August 1986, and extended on the 20th of May, 2004.

branch railway, sections of the Hayle turnpike road wall along the southern edge of the site along Carnsew Road and the Foundry viaduct, for example. [See. Appendix A – Listed building description and Appendix E].

Therefore, future development on site should consider the potential impact caused to the listed structures above ground and remnants below ground, the setting of South Quay and of surrounding listed buildings, the impact on the Hayle Conservation Area conservation areas and scheduled monuments.²⁰ These impacts are examined in the HIA.

Being perhaps the most prominent man-made feature in the Hayle estuary, South Quay benefits from a unique and outstanding setting. This manipulated landscape consists of a highly engineered landscape set within an estuary of outstanding natural beauty.

The harbour has been a character-defining feature of Hayle over the years and it can be said to be the main reason for the very existence and development of the town. Furthermore, in terms of heritage significance, the harbour plays a determining role to form the local and regional significance of Hayle to which the OUV is recognized within the Cornwall and West Devon WHS.

5.2 Former and current uses

Hayle Harbour has a long history of industrial and commercial operation. Since the eighteenth century it has hosted activities such as the shipping and delivering of raw materials, merchant trading and wharfage, transporting of finished goods for heavy industries. Among many other uses, the harbour has also been a base for shipbuilding and ship breaking. It received coal for a power station and shipped locally made explosives. These activities have largely contributed to the industrial and commercial character of South Quay and to the town of Hayle.

Today the Hayle Harbour has numerous leisure and commercial moorings. The leisure vessels are laid along Penpol terrace secured either by means of a post on the foreshore and a sunken block in the mud or against the harbour walls where multiple berthing (doubling up) is avoided where single berthing is available. The commercial use is dominated by the modest local fishing industry, and the vessels are moored mainly on East and North Quays. Almost all work is on a seasonal basis, seven to eight months a year. Only a handful of the commercials use the harbour in the winter months as prevailing winds are onto the north coast and conditions over the Hayle bar at the harbour entrance prevent safe navigation.

5.3 The character and interrelationship of spaces within the area - The Setting

The character of the environs developed over the years largely derives from the presence of four distinct but interrelated areas: the Harbour, Foundry, Penpol and Copperhouse as identified in the report “Hayle - Historic Characterisation for Regeneration” (Oct 2005) prepared by the Historic Environment Service Cornwall Council as part of the Cornwall & Scilly Urban Survey (CSUS)²¹. For a

²⁰ A detailed record of listed buildings and scheduled monuments in the vicinity of the site is given in the Appendix E.

²¹ Refer to extracts of the “Hayle - Historic Characterisation for Regeneration” report by (Oct 2005) for character summary of each area in Appendix C.

better understanding of how South Quay relates to these distinguishable areas, a summary follows below:

Character Area 1 – Copperhouse: Considered the commercial heart of Hayle, this area retains both the industrial character expressed in the Copperhouse Pool, canal and dock and the 19th century shop fronts and numerous “Hayle Style” terraces built on the rising land south and east of Copperhouse Pool.

Character Area 2 – Foundry: A conglomeration of impressive buildings, unmatched in other areas of Hayle, with built remnants of the Foundry Complex still reflect the dominant presence of the Harvey’s enterprise in town: large industrial buildings and villas. A small retail/mixed environment in Foundry Square, leading to Penpol Terrace.

Character Area 3 - The Harbour: Reflects a major feature of engineering and the masterful manipulation of the natural estuary, maximising the potential of port activities. The Harbour was Hayle’s *raison d’être*. This character area is material evidence of the competitiveness between the thriving Harveys and CCC companies for the control of the port. It includes wharfs, canals channels, sluicing pools and causeway roads and remnants of the railway lines that made viable the industrial and commercial activities of the port and wider region.

Character Area 4 - Penpol: A middle ground between the two settlements of Copperhouse and Foundry, this area to the east and northeast of South Quay occupies the northern and southern margins of the Copperhouse Pool. The built character consists generally of 2 storeys mid-19th century terraces built for professional classes marked by the presence of the grade II* listed St. Elwyn Church. A number of shops connect through the viaduct to Foundry Square.

Table 1. Summary of Character Areas in Hayle.

Two of these areas (Foundry and Penpol, Character Areas 2 and 4, respectively) surround and determine the built environment that constitutes the setting or backdrop for South Quay. The natural environment in which South Quay is set is considered part of The Harbour (Character Area 3).

While the relationship with the Character Areas 2 and 4 are established through physical proximity and visual connection, the relationship with the Copperhouse Character Area beyond Penpol is stronger in historical terms, given the historic rivalry between the two developments and the similarity in industrial activities that ultimately led to the production of industrial architecture. In spite of the relevant industrial remains, Copperhouse’s character is largely formed by the presence of 19th century terrace housing and commercial/retail development.

The site falls within The Harbour Character Area which reflects the natural attributes of the estuary along the sea combined with the remarkable man-made landscape of the port and quays. The estuary, recorded as an important trading centre since the 5th to 7th centuries, achieved its zenith of development in the second decade of the 18th century. While activity has severely diminished as a working harbour, the area today supports a number of habitats and special of local and national importance which renders much of it as a Site of Special Scientific Interest (SSSI). The estuary is also surrounded by beaches and dynamic dunes.

The industrial features, harbour infrastructure, pylons and old power station and post-industrial development in the Harbour Character Area contrast with the setting of Hayle Estuary in St Ives Bay and its associated extensive sandy beaches backed by sand dunes dotted, chalets creating a dramatic landscape appreciated by residents and visitors alike.

The character of South Quay and immediate environs developed over the years, with four major milestones since the quays construction between 1817-19: the construction of the Carnsew Pool and sluicing gates (1834), the construction of the railway viaduct in 1837 (extended line opened in 1852 and viaduct rebuilt in stone in 1886), the creation of an additional slipways until 1907, and the absolute decline of the site marked by the demolition of the buildings pertaining to the industrial past, after the mid 1990's [Fig. 1].

5.4 The evolution of built form on South Quay – Buildings and Materials

The earliest map records of this area of Hayle date back to 1791. Development on the adjacent Carnsew Dock dates back to 1740. Meaningful evolution of the built fabric on the site is recorded in the 1828 map, with the construction of the South Quay itself which took place between 1817- 1819. The quay plan form presents a peculiar scalloped profile, attributed to the possibility to accommodate boats alongside. The quay is built of squared granite and killas rubble, granite ashlar and copper slag blocks with granite dressings interlocked with iron cramps.²²

The 1828 Map [Fig 9] shows a sparsely built South Quay with little more than a tramline and minor buildings or structures to support the transport and shipping of raw materials. South Quay (or Harvey's Wharf) is a narrow peninsula with the linear Carnsew Channel (and Carnsew Dock) to the west and Penpol River to the east. Penpol Terrace and Carnsew Pool were not built at this time.

More and substantial buildings and tram and railway lines are seen in the 1840 map [Fig.19]. The creation of the Hayle Railway line was of paramount importance for the development of the import-export enterprise as the difficulties making heavy load transport with animals of burden over mud roads was becoming a costly and unviable option. Opened in 1837, the line initially carried mineral traffic to and from mines at Camborne and Redruth and reached Angarrak, with a western terminal at Penpol. At this time, a series of buildings, predominantly linear and rectangular in plan form, already occupied the peninsula along its north-south axis. Fig. 11a and the later late 19th and 20th century photographs [Fig. 20] inform us that on the exterior the buildings were simple and industrial in character, reflecting the pragmatic response to suit the changing nature of the Harvey's business. Another interesting aspect of the site evolution, to be seen in the Tithe map [Fig. 10], is the creation of Carnsew Pool the alterations to the Carnsew Dock and the creation of the two sluicing gates (1834) for the flushing of the harbours sand on which the harbour activity depended on. The western profile of South Quay is changed, reflecting a new configuration that includes what appears to be a slipway. The early road that today is the Carnsew Road is seen in this plan closely evolves over this same path until today.

One striking new feature in the 1878 map is the Foundry Viaduct, which crossed over the southern tip of the site. The viaduct, built for the West Cornwall Railway, opened in 1852, built in timber and later replaced with the hammer dressed granite structure we see today, dominating the southern views of South Quay. This map also shows a considerable branching of railway lines into the quay, the wharf

²² Further description of the grade II listed South Quay is provided in Appendix A.

system, laid to the 7 ft broad gauge in 1877 (apparently the last such constructed) with a branch taken across the main road into the foundry. The Hayle line is also faintly depicted along Penpol Terrace. The west side of the quay is the shipyard with a slipway into the Carnsew Dock whilst the east side is an open wharf. Gas works are depicted on the southwest corner of the subject site, currently an open surface car-park space. A literary institution is sited at the present Isis Gardens (no longer extant) and a weighbridge “weighing machine” is seen at the foot of the new railway viaduct. Mooring posts are placed on the perimeter of the quay and adjacent Penpol terrace and Carnsew Pool. A flagstaff crowns the tip of the peninsula.

At this time, and throughout the history of buildings on site, the bulk of construction was situated on the south and west side of the Quay, whilst the east side and the northern tip of were free of permanent constructions, being reserved for storage or traffic of materials and workers activity.

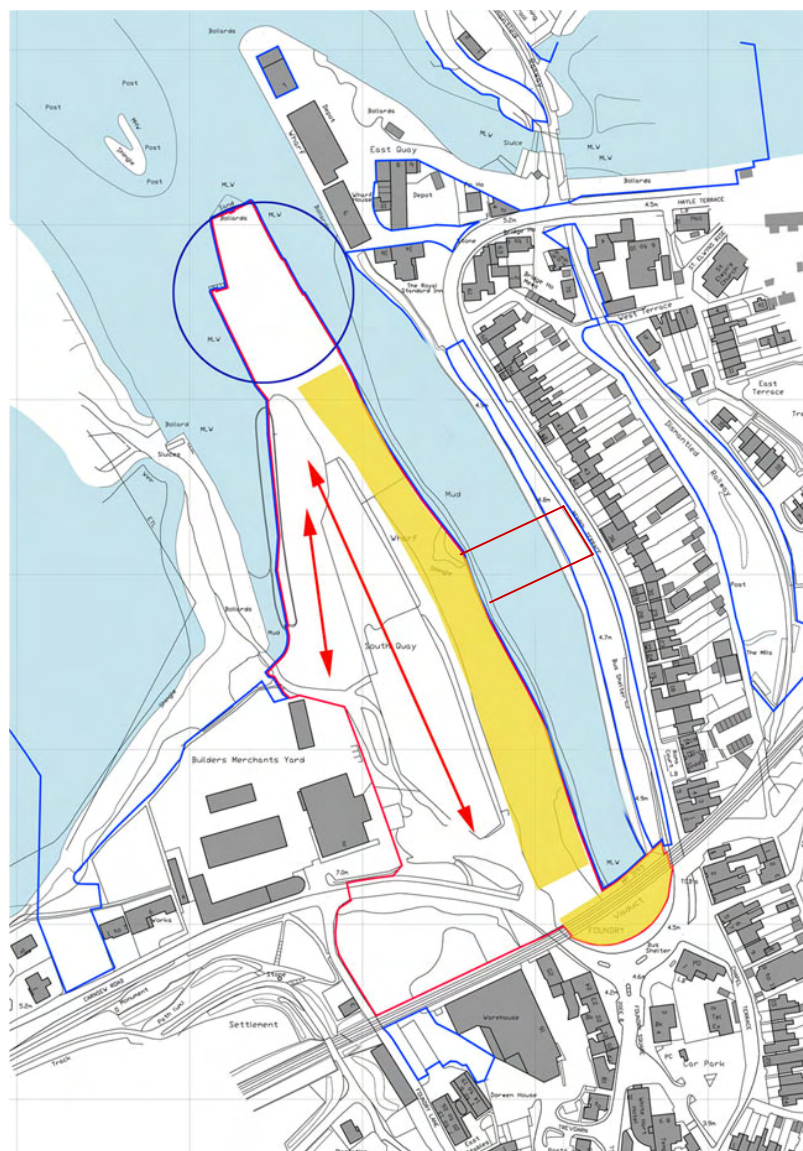


Fig. 19. Based on 2011 OS Map – Site boundary in red, the red arrows indicate the overall axis along which the built form developed, with quay buildings and slipways. Yellow corresponds to the area designated primarily for traffic and distribution of tramway lines and to areas for open storage of materials. Likewise the tip of the quay remained free of buildings, featuring little more than a flag post as permanent structure.

This pattern of development is seen in the subsequent 1907-08 OS map [Fig 14] and [Fig.16]. On the other hand the distribution of rail lines on site varied. In the 1880's map the line enters the site from the central-southern edge curving from Penpol terrace through what is Isis Gardens today. On the quay the line followed a central spine from which other lines branched out. This disposition was altered by the 1930's, reflecting the perimeter distribution of the lines on both the east and mostly on the western side of the quay, supporting the building break up activity that took place in the slipways.

Following changes and business demand, further reshaping of the western side of South Quay took place with a new slipway added in 1907 [Figs. 14 and 21].

While the historic maps reveal a plan form marked by linear distribution of buildings along the western edge of the site with some rectangular or polygonal volumes adjacent to the railway viaduct, the historic images and aerial views provide invaluable insight on how the industrial built form was materialised. The distribution of the buildings on site resembles a string of individual units loosely aligned. Characterised by pitched roofs over (mostly) 2-storeys high with sparse and regular fenestration with few door openings. Although it is not possible to infer what the exact height of the buildings were, it is clear from the historic photographic records that the top of the roof ridges of the buildings on site are just below the railway viaduct track level [Fig. 25], with the height of buildings to the west surpassing the rail way benchmark. It also appears that the buildings were built in stone and timber with pitched roofs featuring numerous roof lights. [Figs. 22 to 25].



Fig. 20. 1895 – View of Hayle, looking south, (RIC photograph collection).

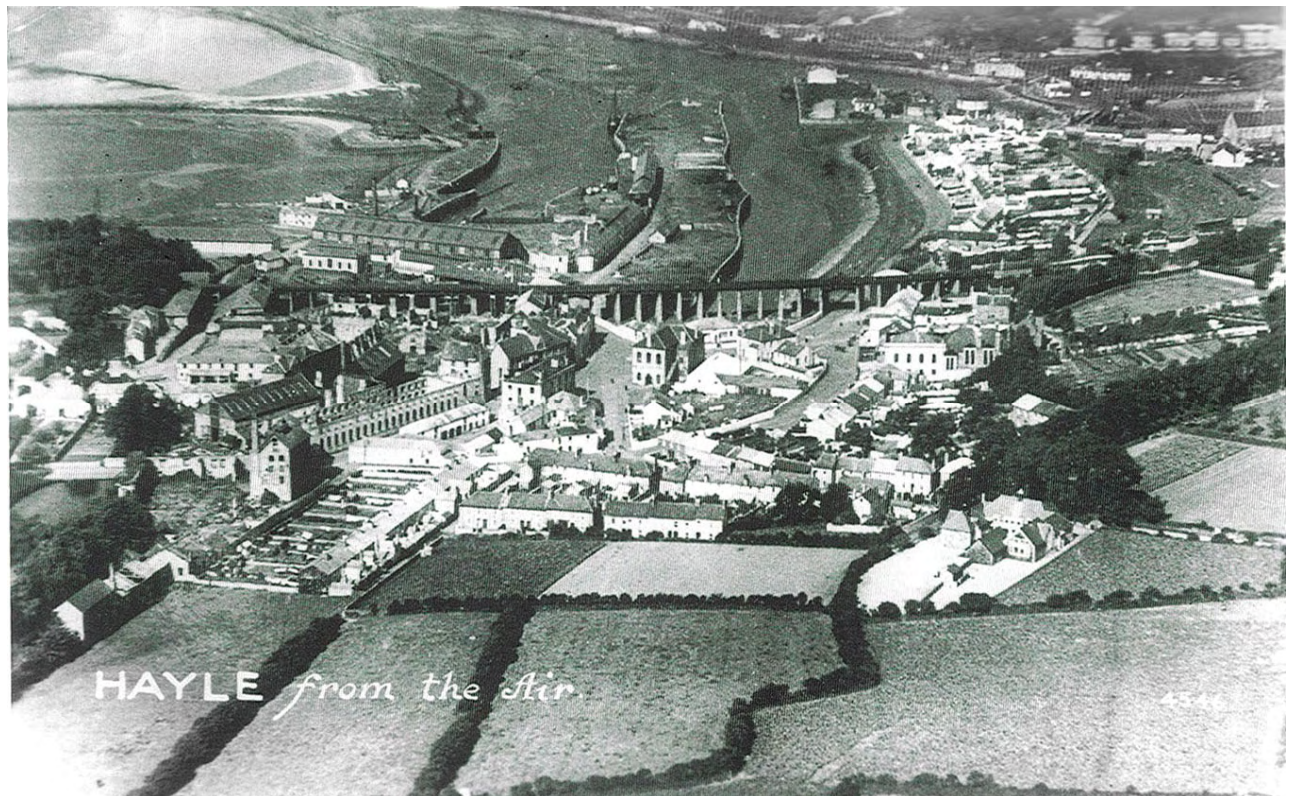


Fig. 21 Ca. Early 1900 – Aerial view Hayle after the closure of Harvey's Foundry , (Morrab Library. Vale, Edmund The Harveys of Hayle).

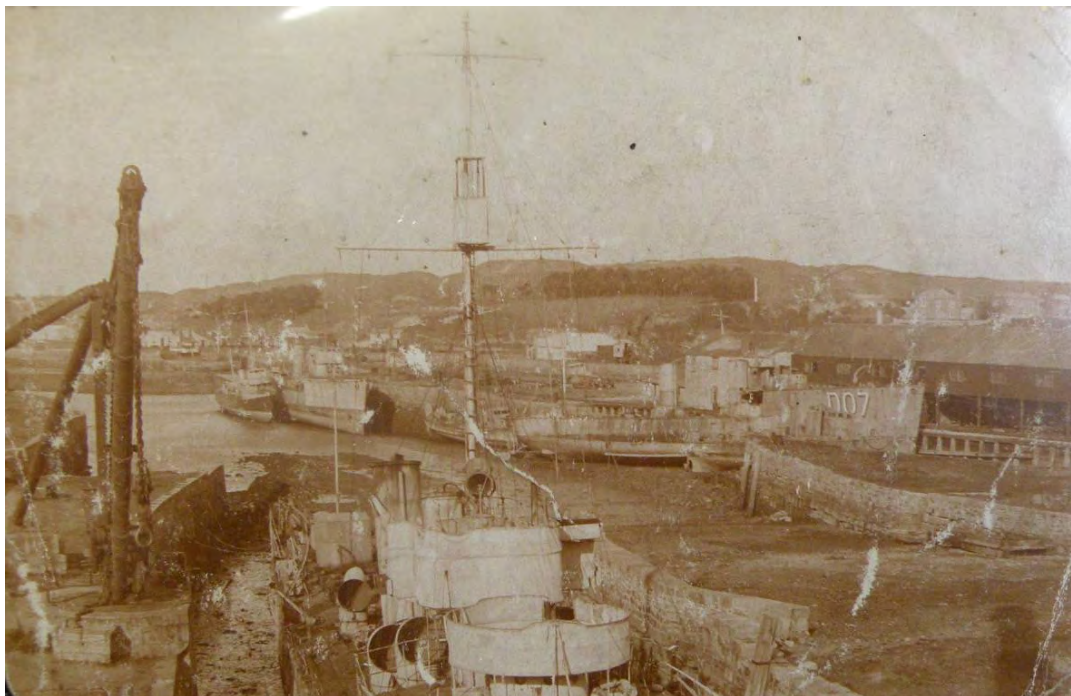


Fig. 22 Ca 1920. – View from Carnsew Dock towards South Quay, showing the added slipway, the original stone Quay walls and timber revetments (courtesy of Mr. Clive Polkinhorne).



**Fig. 23 1931 – Aerial view of Hayle, looking south over South Quay. (Harry Pascoe 2005-
The Book of Hayle).**

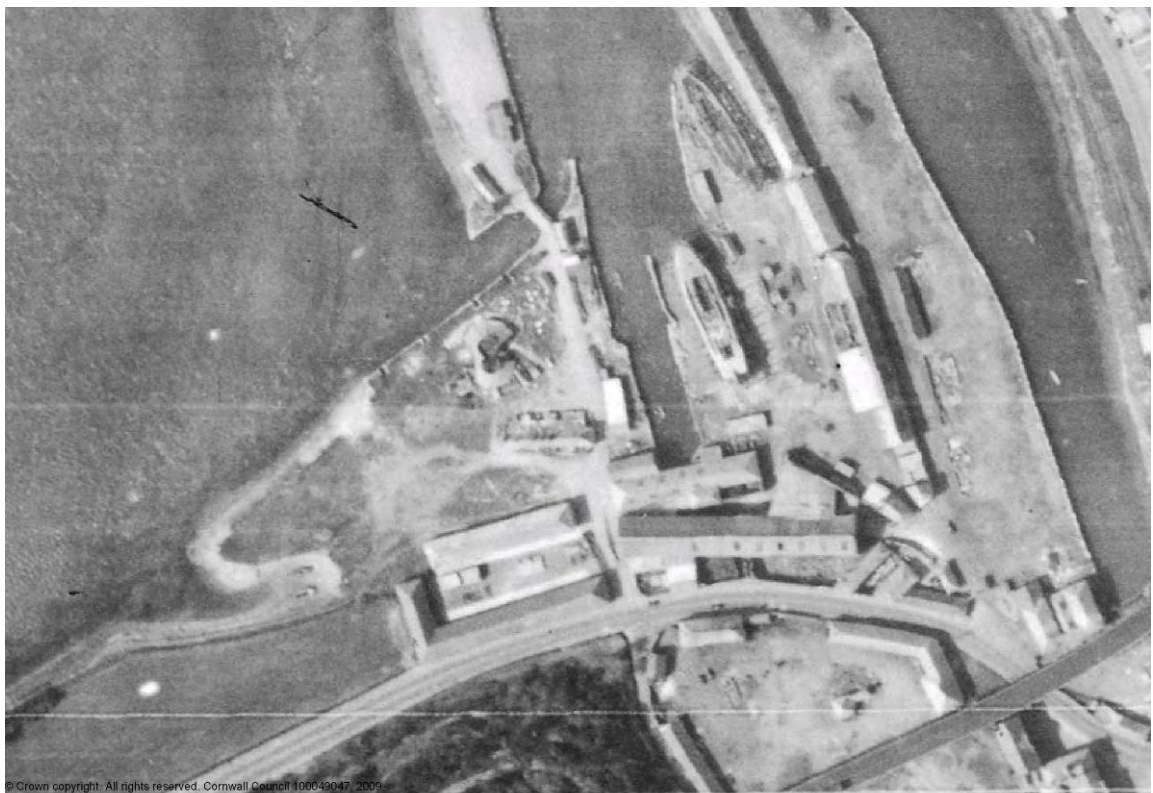


Fig.

**Fig. 24 1946 – Aerial view of Carnsew and section of South Quay. Showing two small vessels
in the slipways (Crown Copyright confirm with FCBS).**



Fig. 25 1960's or 70's – View over Foundry, South Quay showing heights of buildings relative to the viaduct (Courtesy of Mr. Graham Coad).

Little appears to change in the built form of the quay between 1907 and 1946 as seen in Figs. 21 to 23 and Figs. 14, 16 and 25. The changes, as discussed in Chapter 3, pertained to mostly to use. The shipbuilding activity ceased in 1893 therefore, during 1906 and 1936, the main activities on site were ship breaking and harbour use to support the WWI efforts (and WWII afterwards). In both the 1907 and 1936 maps the former Iron House at the foot of the viaduct is depicted as storage [No 14, Fig. 13]. The former Shipyard drawing office [No 19, Fig. 13] appears to have been reduced in size. The literary institution appeared to have remained until 1936. Later this building gave place to a railway station, finally demolished in the 1980's.

The 1960's records show the extension of linear buildings northwards, following the same industrial character of the former buildings. [Fig. 26, 27 and 28].

Between 1963 and 1968 a difference in the western profile of South Quay and the covering of most of Carnsew Dock is visible, marking the beginning of the infill of slipways with debris and demolition materials²³ leading to the current plan form of South Quay with the slipways infilled by 1978 [Figs. 27, 28 and 30].

²³ The Interim report "Archaeological evaluation at South Quay Hayle Harbour, Cornwall" by Northamptonshire Archaeology (June-July 2011) reveals the following materials as being used as infill: faced granite blocks, brown loam matrix, compacted clay, modern made ground, concrete, bricks, granite blocks and miscellaneous detritus tarmac.



Fig. 26 1961 - The built form on the site declined greatly from the 1930s.

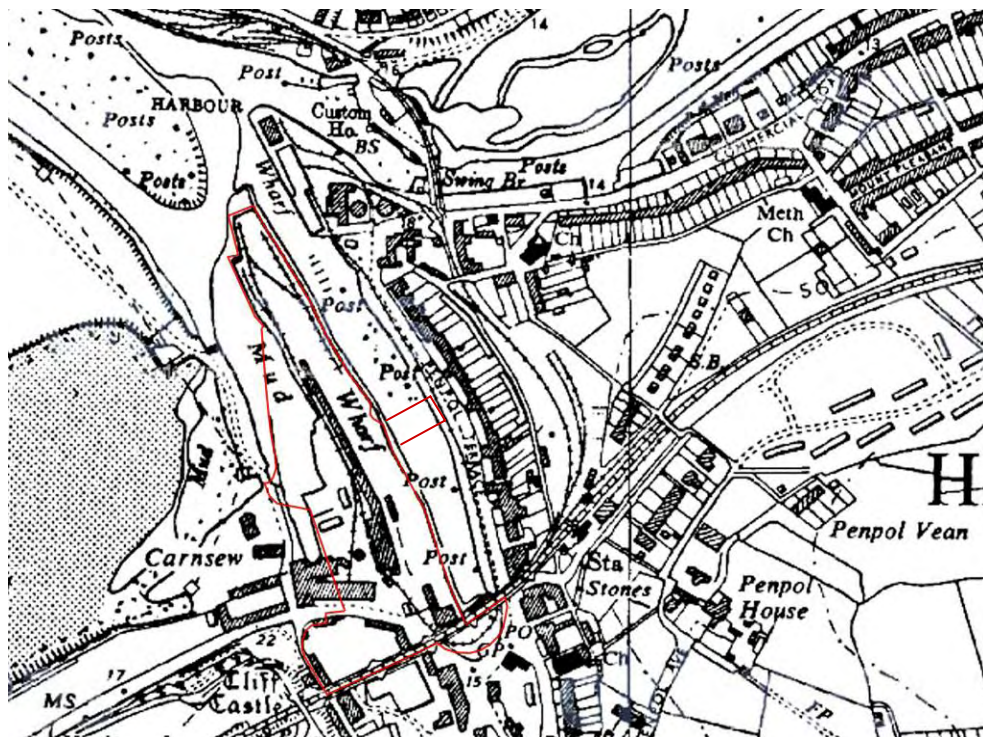


Fig. 27 1963 OS Map (www.old-maps.co.uk), site outline in red.
The wharf railway branch lines are still prevalent.

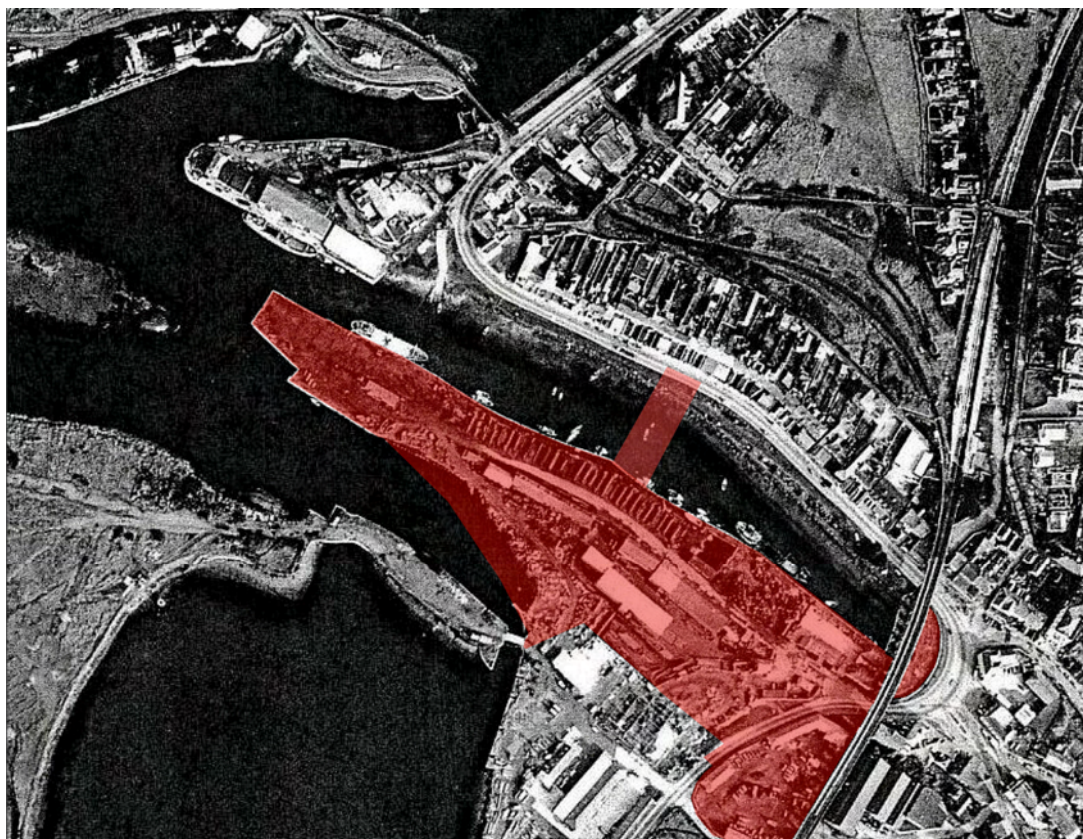


Fig. 28 1968. South Quay with the subject site in red.



Fig. 29 1970's. South Quay

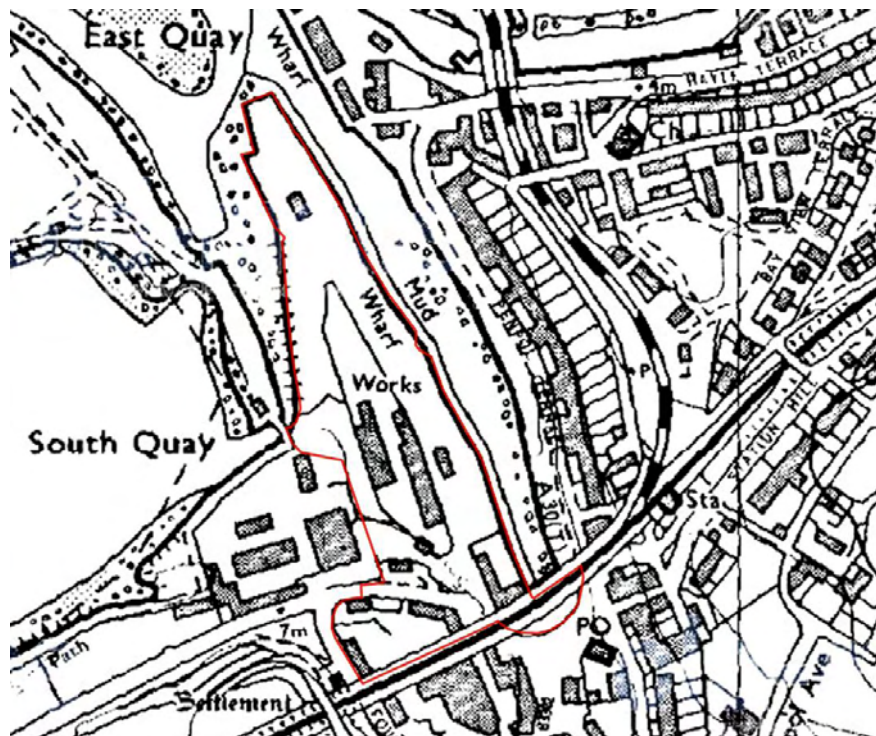


Fig. 30 1978. South Quay.

By 1979 several buildings had been demolished the remaining buildings still described as a “works”. The buildings on both the gasworks site and the current Isis Garden have also been demolished. Further demolitions took place in the late 1990’s, as confirmed by the 1998 OS Map. Only one building was left standing, a 1960’s house and it has been demolished prior to the site’s nomination as part of the WHS, in 2006.

In spite of the unfortunate loss of the vast majority of the above ground features, there are underground remains that relate to the site’s industrial past. These remains contribute to the site’s Outstanding Universal Value and precaution measures to properly protect these remains from any substantial harm due to future construction activity, should be taken. As described in sections 4.1.2 and 4.1.3 of this report, the 1960’s and 70’s infill covers the earlier western profiles of the quay, concealing granite ashlar walls similar to the exposed fabric at the north end of the South Quay together with the timber revetments used further construct the slipways to the south as part of the shipbuilding activity.



Fig.31 1986 showing some substantial buildings remaining and active quayside for small vessels. The area of dumped infill covering the dock and slipways is apparent.

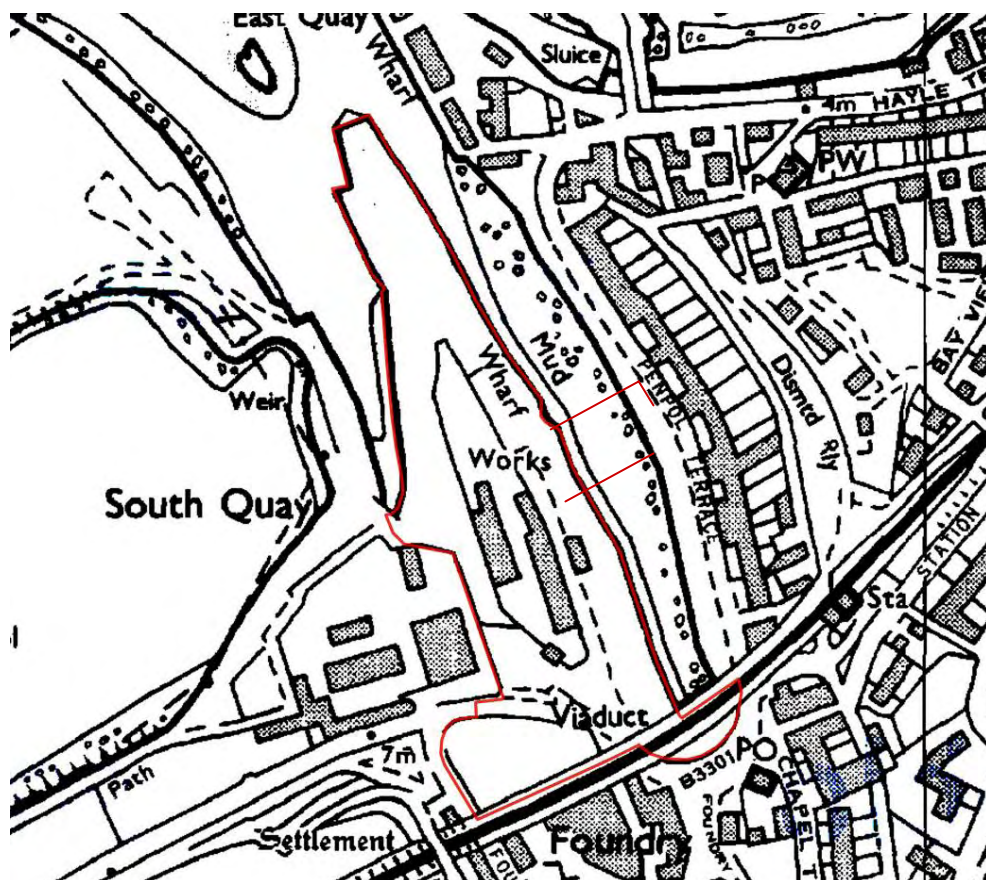


Fig.32. 1987-89 OS Map.

Aside from the historic fabric, the materials seen on South Quay today consist of a gravel pavement with a section of a tarmac road extending along the spine of the quay, halfway through the length of the peninsula. Amidst the granite mooring bollards, contemporary metal ships ladders have been mounted on the historic coping stones to provide access from the quay into the leisure and minor fishing vessels that are moored at the quay. Gravel paths on the southwest section of the site lead to the abandoned sluicing gate, semi-buried. Near the sluicing gate, 20th century metal railings are mounted on the coping stones.

A landscape characterised by random greenery is seen on the west side of the quay, corresponding to the infill area that consists of debris and rubble with sections contaminated with asbestos, and suspected of being contaminated with arsenic and copper as well.

At Isis Garden, following the demolition of the railway station after WWII, the site remained empty for several years, used as a storage yard for building materials and slates. After the 1990's the semi-circular area was landscaped, a low wall built around it, further severing the already impoverished connection between South Quay and Foundry Square, with due to an ever increasing amount of motorised traffic on Carnsew Road.

South of Carnsew Road, the demolition of buildings in the early 1980's led to the use of the site as an open surface car park.

5.5 Topography

The topography of South Quay is considerably flat, varying from +4.90m (at the southern edge of the site near the railway viaduct) to +4.22m (towards the northern tip of the quay). An increase in height (up to +6.57m) is seen on the southwest end of the site, and it corresponds to the area covered with tipped material and brambles used as infill over the remnants of the former slipways. Regarding alterations in datum level, the archaeological investigation has revealed the presence of the slipways coping stones at levels which vary approximately between 0.25m to 0.55m below ground level.

5.6 Survival of Standing Historic Fabric – The site today

Unfortunately, due to the redundancy of the historic industrial facilities and wharfage on South Quay, most of the built form relating to these activities was demolished in the 1990's and early 2000's. The main surviving features of the historic fabric²⁴ still standing that relate to the activities historically developed on the site are:

²⁴ Key physical remnants components of the illustrated in Fig 15d-Inventory Map of Standing Historic Fabric- of the report "Hayle Historical Assessment" July 2000, prepared by Nick Cahill (BA, IHBC) with Cornwall Archaeological Unit and described in the Appendix 3: Inventory of archaeological sites and historic structures,



The Grade II listed Quay (ca. 1819).



Granite mooring posts (ca. 1818)



Foundry viaduct



Timber sluicing gate at Carnsew Pool (1834).



Hayle turnpike road wall

In spite of the extensive removals, what remains of South Quay today can be considered to be of high authenticity. The 1817-19 walls are visible in most part of the perimeter, featuring oxidised iron clamps, granite mooring bollards. A central stretch on the east side of the quay has collapsed and the tidal movement has created an area of erosion. This section reveals a possible stratification in the quay wall construction, which seems to indicate that the height of the quay has been increased. The northern terminus of the east side of the quay retains the arched footway fording passage now blocked up with metal sheets.

5.7 Surviving Historic Fabric Below Ground

Refer to sections 4.1.2 and 4.1.3

5.8 Summary Characteristics of the Area

The spatial identity of South Quay has been industrial over time, in a marked contrast with the emptiness and somewhat desolate environment seen today. The barren South Quay speaks of the collapse of the trading and mining industry enterprise followed by the obsolescence of the post-war ship breaking activities.

The site, originally densely built on the southwest side featured 2-storey high, long and linear constructions that served the pragmatism of Harvey's enterprise. This industrial character and hard landscape establishes a marked contrast with the surrounding residential and commercial character of Penpol Terrace to the east and Foundry to the south. Being part of the busy harbour, South Quay (along with the other three quays) contrasted with the manipulated but scarcely built landscape of Carnsew Pool and the northern views of the harbour. The views into the quay have changed dramatically over time, with a busy port giving way to redundant quays and underutilised mooring posts.

The historically strong physical relationship with the Foundry site has been weakened by the presence of the Carnsew Road which acts as a severing element that allows for South Quay to be perceived as a residual space with little (or no evident) connection with the impressive remnants of the Foundry buildings. This disconnect is accentuated by the dominant presence of the Foundry viaduct that acts as a visual, more than a physical barrier and the incompatible character of the soft landscape of Isis Garden.

5.9 Negative factors, problems, pressures and capacity for change

- The extensive demolition of the industrial built form on South Quay was an extremely unfortunate chapter in the history of the site in heritage terms, detracting from its potential contribution to the WHS's OUV and to the enhanced character of the Foundry and Hayle Conservation Areas.
- The lack of development in such a prominent part of Hayle is a missed opportunity not only for the expression of the site's heritage significance but it also has much wider and deleterious impact on the economic development of Hayle.
- The estuary setting provides physical barriers that added to the visual barrier of the viaduct and the presence of the Carnsew Road (B3301) hinder the connectivity and permeability of the site with the surrounding character areas and listed buildings, hindering the fulfilment of its heritage potential.
- The peninsular disposition of the site allows for views towards the surrounding conservation areas and significant listed buildings around Hayle (such as the St. Elwyn and Lelant Church). There is therefore potential for new development to express the historic industrial character of the site re-establishing the visual role of South Quay in relationship to the character of Penpol Terrace and the Foundry.
- Development proposals for the site have been brought forth for over two decades without any substantial materialisation. By now, the residents of Hayle, the Cornwall Council and local stakeholders are eager to witness an economically viable and sensitive regeneration of the site; one which will harness the potential of South Quay as a positive contributor to the Hayle Conservation Area, which will enhance the expression of the Hayle's contribution to the OUV of the Cornwall and Devon Mining Landscape WHS and which will ultimately bring economic development and renewed vitality to the town along with other public benefits.
- In light of the current economic downturn however, there is enhanced pressure for the reaching of a balanced approach amongst stakeholders: one which will consider the heritage sensitivity of the site along with the economic viability for development, if a short or mid-term investment on the site is to materialise.
- One of the most difficult issues to be addressed in development proposals is the redundancy of the industrial and commercial use of the harbour due to the collapse of the mining and other industries that followed. The merchant trading activity continued for longest and is still retained in the Jewson site. But advances in distribution methods, increased mobility and changes in socio-economic profiling heralded the eventual demise of the multi-outlet domestic and trade centres. Larger concerns with advantageous buying power have emerged as the representatives of the merchandising and trading activity in our own era. The existing use of the harbour by a modest fishing fleet and leisure boats is beneficial to keep the harbour alive, although it does not reflect the type of activity to which the significance of the site is intrinsically related – cargoes and wharfage are not likely to be seen again. Instead, it reflects the ever-changing history of uses throughout the site's history.

- Set within the striking scenery of the estuary and with heritage rich surrounding areas, the site has great potential to reveal and re-establish the historic links that demonstrate the site's heritage significance.
- The presence of buried remains (slipways, dock walls, etc) implies that greater care must be taken during development to prevent substantial harm of the archaeological remains. The listing notices refer only to "Quay walls" and specifically to those built of masonry.
- Whilst the literal recreation of the 'historic' setting should be avoided in order to preserve the authenticity of the place²⁵, it is important that redevelopment proposals create an environment that will establish physical, material and visual links to the significant historic remains.
- There is opportunity for the re-establishment of commercial activity and other type of activities on the site. The changing of uses is a continuous and intrinsic part of South Quays' history during and beyond the period to which the OUV of the WHS focuses on, until 1963.
- The manipulated setting of the estuary is an authentic physical testimony to the mighty engineering of the period to which the OUV of the WHS pertains to. There is potential for original features of the site to be repaired and reinstated to reveal the site's significance and to enhance the awareness of the historical value of the harbour for local stakeholders and the wider public.
- Historically, the site has been always privately owned and therefore site access has been restricted. Making the site more publically accessible along with the creation of high quality, permeable publicly accessible realm would potentially increase the use and appreciation of South Quay.

6 CONSULTATIONS

The consultation process has been addressed in detail in the Design and Access Statement that accompanies this application.

The preparation of the current design proposals benefitted from greater engagement with stakeholders and from an enhanced exchange between the project team and local residents and groups in particular.

The Workshops facilitated by Cornwall Council and attended by Members, Officers, specialist advisors together with English Heritage, members of Hayle Town Council and Cornwall County Council. These Workshops were an opportunity for sharing information regarding the historical development of Hayle and South Quay which led the team to a common understanding of the significance of the site and of Hayle within the OUV of the Cornwall and West Devon Mining Landscape.

²⁵ The Vienna Memorandum on "World Heritage and Contemporary Architecture - Managing the Historic Urban Landscape" and Decision 29 COM 5 (September 2005) acknowledges the impact of contemporary development on the overall urban landscape of heritage significance and propounds that in redevelopment processes the historic city's authenticity and integrity, which are determined by various factors, must not be compromised.

Aside from presentations and discussions, the Workshop participants actively produced preliminary analytical sketches that summarised the historical character of the development and the vision of the stakeholders for the site. This in turn has informed the design process.

In addition Heritage Architecture took part in monthly meetings with the Hayle Harbour Liaison Group where representatives of the following groups participated:

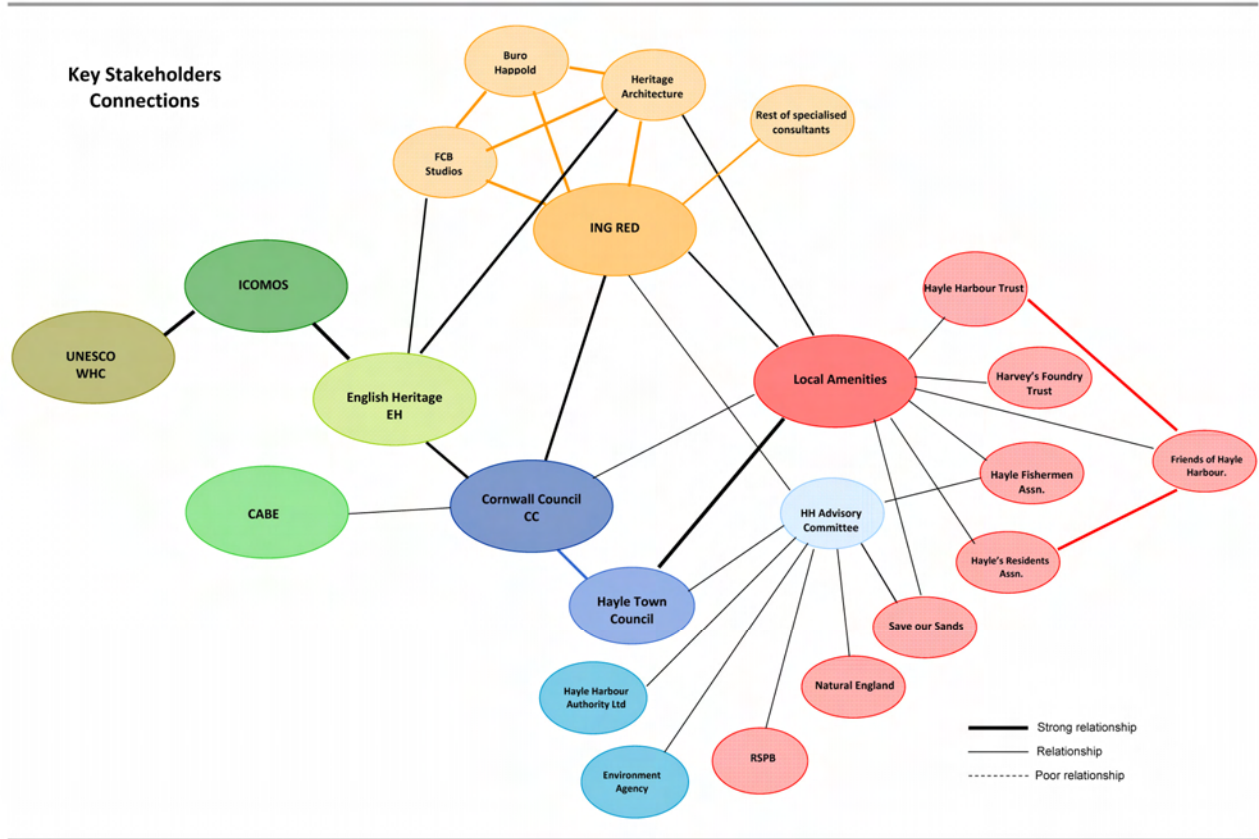
- Hayle Town Council
- Cornwall County Council;
- Hayle Harbour Trust;
- Save Our Sands;
- Hayle Residents Association;
- Hayle Harbour User Group

Representatives were invited as individuals but clearly those individuals represent wider interest groups.

Separately, the Commercial Fishermen have met with representatives of Hayle Harbour to discuss their continued use of the Port. Such meetings are timed to suit the commercial fishermen rather than Harbour executives.

This level of stakeholder engagement allowed for the gathering of additional information (i.e. local residents kindly provided information from their personal archives and shared their knowledge of the local history with the team). Furthermore, the active participation of local groups in the development process not only enriched the discussions for the proposed development but they also have value as enhancing the relationship with the site, vital to its long-term preservation.

In light of the opportunities and constraints of the site, the stakeholder's views were taken into consideration, wherever and as much as possible, including those of the advisory bodies: English Heritage, ICOMOS and CABE.



7 SIGNIFICANCE OF THE SITE AND ITS CONTRIBUTION TO THE OUV OF THE WORLD HERITAGE SITE

This chapter aims to produce an assessment of significance capable of embracing the value of the port of Hayle, and the attributes of the subject site in a comprehensive manner going beyond the distinction among international, national, regional and local significance and incorporating the understanding of “who values a place and why they do so” as recommended by ICOMOS (2011:4). This means to look at heritage assets in the light of different policy guidelines (international, national, regional and local) and different approaches employed by the various stakeholders involved in the policy-making and protection of the historical environment.

The challenge of this task is emphasized by the fact that the World Heritage Site Outstanding Universal Value (OUV) is referred to a wide, non-contiguous multi-centred area of different settlements and structures unified by a coherent cultural landscape and common identity. While the OUV emphasizes on those elements that contribute to build this identity thus generalizing the values to all the ten Areas²⁶, the Hayle Historical Assessment, the historical information to date, the archaeological investigation carried out, and the consultations with the stakeholders helped to identify the specific values of South Quay and therefore to understand its significance.

The national PPS5 Planning Practice Guide offers a method for analyzing the significance of a place, though it specifies that it is simply another way of doing it and not policy. The significance, defined as “the value of a heritage asset to this and future generations because of its heritage interest”, can be assessed by indentifying the “aesthetic, evidential, historic and communal values” of a place. These are taken from English Heritage's Conservation Principles (2008).

Because of the inclusion of Hayle Harbour in the Cornwall WHS, the assessment of significance has also to refer to the Outstanding Universal Value, which means “cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity” (UNESCO, 2008:14) in order to understand the importance of South Quay beyond national borders.

7.1 Evidential value

The English Heritage Conservation Principles Policies and Guidance para 35 indicates that “*Evidential value derives from the potential of a place to yield evidence about past human activity*” (2008: 28). In para 38 it also specifies that “*Evidential value derives from the physical remains or the genetic lines that had been inherited from the past. The ability to understand and interpret the evidence tends to be diminished in proportion to the extent of its removal or replacement*” (ibidem).

The evidential value, seen from a World Heritage perspective, is comparable to what criteria (iii) identifies “*bearing a unique or at least exceptional testimony to a cultural tradition or to a civilization*”

²⁶ The common identity, though has been developed separately, is based on sharing different elements: landscape (in particular mining resources and geological characteristics, which are also reflected in the landscape, although with a different degree of integrity and authenticity); history (industrial development), people and cultural traditions (as a consequences of mining activity and industrial revolution); and physical monuments (the distinctiveness of industrial remains but also settlements, public buildings and artefacts).

which is living or which has disappeared” (UNESCO, 2008:28). The “integrity” and “authenticity” conditions are also particularly relevant here as they measure respectively the wholeness and intactness of the natural and/or cultural heritage and its attributes (UNESCO, 2008:23).

Both values emphasize the ‘physical remains’ of a place and the extent of their completeness.

In the case of the Port of Hayle the evidential value is the built form and physical development which took place because of the industrial revolution, though it evolved over a pre-existing pattern of landholding, which influenced the way industries spread, developed their wharves, and houses were built. Transport infrastructures constitute one of the key components imparting a singular character to the Cornish World Heritage Site because they were fundamental for the development of the mining industry and for the characterization of the landscape. In this respect the harbour itself is a crucial and one of the most obvious elements composing the Cornish mining landscape. Hayle’s location on the north coast and close to the mines made it the ideal position for a port servicing the mining industry.

Certainly the construction of South Quay is the direct **consequence of the expansion of mining industry** in the late 18th/early 19th century. In fact, the South Quay was built between 1817 and 1819 by one of the most important engineering companies in the country and worldwide in order to export ore, foundry products and import other materials and goods needed by the mining industry. The quay was also extremely important for its trading and merchant activities which encompassed a wider distribution to the community at large. However, the site has survived to nowadays and stands as testimony of this important past because it managed to adjust to the economic changes, permitting the port to continue to be active until the late 1960s. The harbour and South Quay survived to the 1866 copper crash and more generally to the decline of the mining industry taking place between the 1895 and 1900 due to the perspicaciousness and ability of its owner, the Harvey Company, who transformed the principal function of the site accordingly to economic and social circumstances. After being at the service of the mining industry the quay was devoted more specifically to shipbuilding but throughout its history it accommodated merchant trading activities and eventually became a building material trading and distribution centre. The quay remained a vibrant and economically active place and so ensured the maintenance of the estuary through the operation of the sluicing, which until the early 1970s preserved the navigable channels.

While the OUV emphasizes landscapes, reshaped mainly during the 18th and 19th century by the mining industry, other values emerge from the historical analysis, the consultation process and the Conservation Area Appraisal, which confers upon the Port of Hayle and South Quay a significance beyond those boundaries. These are expressed as **post mining industrial development**.

Not less important, the evidential value of Hayle harbour is represented by being the **result of a struggle between human activity and force of nature**. The nature of the harbour, formed by two tidal lakes within an estuary which is subject to constant silting from shifting sands. Its topography has been adapted and engineered to provide not only the extensive quay sides and wharves for the vast array of industrial processes but also to maintain the clear channels needed for entering and exiting the harbour by vessels. The maintenance of the estuary and the presence of pools and sluicing mechanisms, which provided the town with a continuous connectivity via the sea, is thus of fundamental significance. Because estuaries are dynamic systems characterized by complex interactions between people and the natural environment, the activity required to maintain navigation represents a strong linkage between the past and the present, though technology innovations have changed the way that this activity is carried out. The tide can be very strong, and the

unexpected surges created by a heavy ground swell, build up on the bar at the harbour mouth during bad weather, are a navigational problem well known to even the earliest sailors.

The physical attributes of South Quays that comprise the evidential value are an ensemble of artefacts that encompass a diversity of structures of different periods, of which many survive today, though not always in good condition.

The squared granite **quay walls** that contain the peninsula structure made of granite ashlar, copper slag blocks and scoria from the smelting and foundry business, provides important information about the development of the peninsula and evolution of the harbour. Much of these walls survive and confers to the place a unique character as the materials employed were locally available and resulting from the metal refining subsequent to the mining activity.

The **pools and the sluicing mechanism** are the testimony of the historical technique employed in Hayle Harbour to assist in the clearance of the channels and quay sides within the harbour. This included the impounding and controlled release of water from both Copperhouse and Carnsew Pools, with the objective of flushing sediment (mainly fine sand) out of the harbour and navigation channel into St Ives Bay. Both pools now lie within Sites of Special Scientific Interest (SSSI). The Carnsew Pool had two methods of sluicing: from the Carnsew Tunnels, and from the Carnsew Mitre Gate Channel, constructed in 1834. The Tunnels, which are still visible were equipped with four penstock sluice gates within a mainly granite masonry structure. These gates are no longer present, but the tunnels still function and allow the pool to fill and empty on the rising and falling tide. The Mitre Gate Channel, which was infilled some years ago, was equipped with a pair timber mitre gates within granite channel walls. The gates were orientated to point inwards towards the pool and also acted as a lock to allow vessels to berth with in the pool, and were fitted with four penstock sluice gates. The gates are still in situ, but are in a poor and unusable condition.

The **slipways** and the Carnsew dock, which are buried below the existing surface finishes and infilling, testify the physical and economic evolution of the site, not only in correlation with the mining industry but also in connection with shipbuilding which had been important activities for the prosperity of Hayle.

The **industrial buildings, shipyards, harbour facilities or merchant shops** have not survived. However, the buildings had changed considerably since the mining industry related period. The structures on the quays were to some extent of a more provisional nature, and strictly functional as South Quay was a productive and large-scale commercial area. The shipping activities of the harbour were associated with the movement of engineering products and raw materials in about equal measure. In the early days the raw materials were coal, timber, ropes and other goods being imported and ore being exported. These lay on the quays or were corralled into ore hutches. The commercial activity for much of the nineteenth century South Quay consisted in thriving shipbuilding business that was replaced by ship breaking and later on trading in building materials in the twentieth century. These constraints and the unusual landform have contributed to the highly fracture of the urban grain of South Quay, though a north-south alignment dictated by the elongated form and functionality of buildings is retraceable from the historic maps. The area was serviced by the Hayle Wharf Railway which meant that an extensive part of the quay areas were covered with rail tracks and its appearance dominated by the viaduct and the functional treatment of harbour structures which have deteriorated over time.

Despite the demolition of much of CCC Copperhouse Foundry and key elements of Harvey's business, outside the site the **historic industrial town** is still largely intact. The harbour itself contains 20 Grade II listed structures and, despite the dereliction that has occurred over the past Century, remains a remarkably intact example of an evolved industrial port. Much of its key industrial and public buildings and a good range of workers' housing, villas and early shop fronts, and the 1886 West Cornwall Railway viaduct survive. The latter replaced the Hayle Railway, one of the most important terminus of Cornwall's early railways serving a hinterland stretching eastwards as far as Redruth and Camborne, with their huge market for coal, timber and other materials. Hayle is a settlement of unique character and historical significance, also because of the peculiar industrial development centred based on two main industries produced a residential settlement pattern physically and characteristically divided into two towns: Copperhouse and Foundry. The former represents the commercial and residential heart of Hayle with its 19th century shop fronts and terraced houses. The latter reflects the large industrial and mercantile enterprise of Harvey's with its impressive buildings and villas.

7.2 Historical value

The English Heritage Conservation Principles Policies and Guidance para 39 indicates that "Historical value derives from the ways in which past people, events and aspects of life can be connected through a place to the present. It tends to be illustrative or associative." (2008:28-30).

The historical value, seen from a World Heritage perspective, is comparable to what criteria (ii) identifies being an Outstanding Universal Value: "*an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design*" (UNESCO, 2008:20).

In the case of Hayle Harbour the historic value is represented by being an **expression of industrialised mining activity, a testimony of the innovative use of the high-pressure steam and a part of that greater landmark of human history known as 'the Industrial Revolution'**. Hayle was the home to two of the three largest early 19th century mine engine (steam) foundries in the world (Harvey's 1779-1903 and CCC (Sandys, Carne & Vivian) 1820-1869), and it was the workplace and meeting place of some of the most famous steam engine engineers like Richard Trevithick, William West and Arthur Woolf. It was the place where mine engines were embarked and sent to other parts of the world, and played a key role in the transfer of the industrial revolution abroad and to the growth of a global industrial society. It was therefore regarded a place of worldwide importance for innovation, quality and reliability in the field of mine engines production.

In the case of Hayle the exploitation of metalliferous minerals can be regarded as the catalyst activity, as with the rapid expansion of mining came the demand for improved machinery, which brought engineers and requested a large amount of ironfounding workers. The pump engines built in Hayle were not made only for draining the mines, but also for water supply, draining the Dutch polders and coping with flooding in other engineered structures. Other engines for a variety of uses were also made and exported widely. Therefore, the history and associations of the town can be more generally linked to the Industrial Revolution and to all socio-economic and cultural changes that came with it. Moreover, trading of goods also constituted a profitable activity which employed workers and kept the harbour busy for three centuries. The analysis of the imported and exported goods through a period of time is of enormous value as it explains the socio-economic and cultural changes

experienced by the community and gives account of the history of that society. The industrial past, and in particular that linked with the mining activity alone, does not explain the evolution of the built form and landscape of the town and its harbour. The long history of commercial operation, the shipping and delivering of raw materials, the transporting, trading and merchandising of finished ready-made goods for domestic use as well as heavy industries and explosives – among many other uses - largely contributed to the character of the town of Hayle and South Quay.

Another historical value, very important for the socio-economic development of the town and also its achievements, is the presence of the Harveys - engine builders, shipbuilders and merchants – and other entrepreneurs who established the Cornish Copper Company. The rivalry between the two businesses contributed largely to its unique character, not only in the built form of Foundry and Copperhouse, but also in the development of the harbour and the management of the estuary. It was actually the dispute over waterfront rights – access and use for wharfage in connection with the merchant trading operations – that pushed Harvey to undertake the work in the channel, create the Carnsew pool and construct the sluicing mechanism that has survived to nowadays.

7.3 Aesthetic value

"Aesthetic value derives from the ways in which people draw sensory and intellectual stimulation from a place". (Conservation Principles para 46).

"Aesthetic values can be the result of conscious design of a place including artistic endeavour. Equally they can be the seemingly fortuitous outcome of the way in which a place has evolved and be used over time. Many places combine these two aspects... Aesthetic values tend to be specific to a time cultural context and appreciation of them is not culturally exclusive." (Conservation Principles para 47).

"Design value relates primarily to the aesthetic qualities generated by the conscious design of the building, structure or landscape as a whole. The embraces composition (form, proportions, massing, silhouette, views and vistas, circulation) and usually materials or planting, decoration or detailing, and craftsmanship." (Conservation Principles para 48).

On the one hand the aesthetic value of South Quay resides in being a waterfront located in the setting of a remarkable estuary surrounded by sandy beaches and backed by sand dunes. On the other hand, the value is represented by being part of a remarkable man-made quay, though in a derelict condition. In particular the following attributes contribute to the aesthetic appreciation of the place by people and potentially contribute to create place identity and 'restorative' effects:

- the granite walls, though in need of extensive repairs, beside having an aesthetic value in themselves, they constitute the architectural language and historical link to the industrial past;
- the proximity to the city and the advantage of an open view (potentially) offer urban space quality;
- the cultural heritage nature of the views toward Penpole and Foundry positively influence the aesthetic performance of the place;
- the view towards the estuary mouth and sand dunes confer restorative, tranquillity and inspiring quality.

7.4 Communal value

"Communal value derives from the meanings of place for the people who relate to it will for whom it figures in their collective experience or memory. Communal values are closely bound up with historical (particularly associative) and aesthetic values, but tend to have additional specific aspects." (Conservation Principles para 54).

The communal value, seen from a World Heritage perspective, is comparable to what criteria (iv) defines as *"an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history"* (UNESCO, 2008:28).

The remembrance of a vibrant communal past, which placed the Port of Hayle in the world history, is probably the strongest communal value. Hayle by virtue of its geographical location and the presence of two important entrepreneurial companies achieved an historical importance much greater than a town of its size usually attracts, and this is particularly vivid in the identity representation of the inhabitants. Beside, the opportunity that an 'empty' space in an urban environment already consolidated offers, in terms of economic benefits, use of space for recreational and communal activities, and more generally for the regeneration of the settlement as a whole, is also another important meaning given to the place by its people.

8 PROPOSED DEVELOPMENT²⁷

8.1 Principal design objectives

South Quay currently offers little to the centre of Hayle, although it is currently 'informally' publicly accessible it is an untidy, desolate, unsafely open space servicing a few moorings for harbour users. It has been accepted that Hayle is short of food retailing. Being this land close to the urban centre of Hayle and sufficient in size to accommodate this use, it has been envisaged that mixed-used development comprising retail, leisure, marine and residential uses is a pragmatic and appropriate.

The scheme has the objective to stimulate and sustain economic growth in the town, and make the area a desirable and sustainable destination, realise the potential of this unused brownfield land and ultimately introduce a wider choice for the residents in employment, shopping and leisure. Moreover, given the geographical position and the waterfront benefit, the proposal has also the opportunity to act as a catalyst for the socio-economic regeneration of the town and the preservation and appreciation of its heritage, by revitalizing the historic harbour with its significant features and opening it up to residents and visitors whilst securing it a sustainable future.

The design and layout has been informed mainly by:

- the heritage significance (evidential, historical, aesthetic and communal values; in particular the spatial organization, footprint, height and scale of the early quay buildings);
- archaeological remains (buried slipways have determined the plan and foundation layout in order to disturb archaeological evidence);
- the landscape and townscape values (urban grain, scale, massing, height, views, character);
- the concept of permeability (being the development a complex assembly of disconnected elements -visually, physically and in terms of character - it has been of paramount importance to generate legible connections to enhance connectivity with the rest of the city and appreciation of the heritage values;
- environmental constraints (flooding risk);
- usage of aesthetically compatible materials with the industrial character of the area.

8.2 Proposals

The application site comprises some 4.48 ha of land which includes the whole of South Quay to the north of Carnsew Road, a portion of Carnsew Road itself, the Foundry Yard Car Park, the Isis Garden, a portion of land under the viaduct, and a small area across Penpole Creek.

The key alterations between the original December 2010 submission and the amendments now proposed include a number of design related changes, such as a reduction in overall footprint of

²⁷ See the Design Access Statement for detailed information on the design proposal.

development on South Quay, changes to the residential layout, enhancements to the public realm and a revised approach to the foodstore and parking area.

The location of the foodstore and its associated parking relative to the existing quay has been amended to better reflect the historic pattern of development on the site and to generate a vibrant and permeable new public realm relating both to the town centre at Foundry Square and to Penpol Creek. The character of the residential development is informed by the industrial heritage of the site with no reference to traditional vernacular residential form. The most significant and visible historic assets as revealed through the workshop process, further archaeological investigation and the review of heritage considerations are the remains of Carnsew Dock and the sluicing mechanism from Carnsew Pool - these are well integrated into the proposed layout adding to the narrative of Hayle's role in the WHS.

The proposed mixed-use scheme includes the following components:

- The construction of a **plinth to provide flood prevention** over the South Quay. The step in level, which adopts a split-level approach to the publicly accessible area adjoining the quay side, generates a long, sculptural wall differentiating the public realm from other uses.
- A **food store** on South Quay southern, close to the Foundry Square with dual access (from Foundry Square to the south and the car park to the north) to create an attractive and active frontage to Carnsew Road. The new building is a medium-sized supermarket with an in-store café and the potential for a Cornwall Council One-Stop Shop, to reinforce and support the town centre as a shopping destination. The location of the food store in this area has been determined by the proximity to the town centre, vehicular access and transport, but it also reflects the historical spatial articulation, as in this area is where the larger buildings (e.g. boilerwork shop and ship yard) clustered.
- A **surface car park** on South Quay adjacent to the food store and occupying the central area of the quay, preserving something of the present (non-historic) sense of openness.
- A **row of twenty terraced houses** on South Quay to broaden the mix of uses within the development, to ensure high activity levels and vitality at different times of the day, and to expand the range of types and quality of housing available in Hayle. The terraced houses are located at the northern end of South Quay as residential use requires a lesser degree of public access and the scale of the buildings is compatible with the fact that the quay layout narrows down. The housing typology reflects that in Penpol and environs and Copperhouse where two storey terraced developments dominate. The terraces are contained in a two storey masonry (dark brick) clad block set back from the eastern edge of the quay, on which raised terraces interface with the quay.
- Two **four-storey mixed-use buildings** with commercial units at the ground floor and apartments above to form 'bookends' to the row of terraced houses on South Quay. While the buildings fronting the northern edge of the car park provide a variety of retail offer and promote active frontage, the building at the tip of the quay with a restaurant adds vitality, encourages activity throughout the site, and supports a wider leisure offer.
- **Small-scale retail units** and car park on the Foundry Yard to extend the perceived town centre north to the viaduct and westwards along Carnsew Road. The placement in this location

of the eventual Goonvean Engine in this location would define and enclose this space marking it as a 'gateway' to Foundry Square. This development complements the one on South Quay and provides improved connectivity between South Quay and Foundry.

- **Improvement to the Isis Garden** to increase the potential for the space to be used by the public, possibly retaining the majority of the existing wall, but with sections removed to allow permeability and connectivity with Foundry Square.
- The **reinstatement of sluicing from Carnsew Pool** to enhance the viability of the harbour and the appreciation of the historical mechanism (see Environmental Statement).
- A **pedestrian footbridge** over Penpole Creek to improve pedestrian links more generally the connectivity between South Quay, Penpole Terrace, and Copperhouse, thus unifying disconnected parts of town.
- The expeditious **repair of the existing Grade II listed walls** throughout their length including historical quayside fixtures associated with mooring boats (e.g. bollards, rings, chains).
- **Opening the portion of Carnsew Dock** that lies within the applicant's ownership to promote the future re-opening of the entire Dock, a significant remnant of the trading history of Hayle.
- **Publicly accessible waterfront promenade** all around South Quay which incorporates a variety of spaces for different events and activities, including mooring areas for boat users. The promenade that flows into the Isis garden is also connected with the open space of Foundry Yard.
- Extensive **archaeological investigation**, recording and retention in-situ of the remains of the former slipways.
- **Creation of a Harbour Trust** to secure the sustainable future of the harbour and of the heritage assets embedded in it.
- Provision of **high quality interpretation panels** explaining the history and significance of the site.

8.3 PUBLIC REAL AND LANDSCAPING

The accessibility and permeability of the public realm and the enhancement of the industrial and maritime character, which once distinguished South Quay have driven the design and layout of the publicly accessible pedestrian route that stretches all around the quay and links a series of nodal points either on the quay or in the Isis Gardens.

The permeability of the foodstore is also critical; access from both north and south should reinforce its relationship to the rest of the town centre at Foundry Square such that each can benefit from association with the other. Access is retained and enhanced to the land adjacent to Carnsew Pool with a new accessible route connecting from Isis Garden across the north end of the foodstore to a new bridge across the re-opened Carnsew Dock.

The status of the space around the residential development is also an important element: the areas accessible exclusively by residents are minimized in order to provide a generous pedestrian path on the western part of the quay that faces the new dock.

This new pedestrian space around the quay will provide a generous new publicly accessible space for residents and visitors, which may present opportunities to accommodate regular events (i.e. the Hayle festival procession) and occasional happenings (i.e. visits from the likes of the Knee High Theatre Company), but also informal street theatre and community events, while at the same time promote heritage awareness by displaying interpretation panels.

The promenade, which offers open views to the wider estuary and Penpole Terrace, will be bordered by the existing listed walls, a feature of great significance for the historical legibility of the place. The split-level quayside is detailed with a simple palette of materials in order to leave in the foreground the historical walls, emphasizing the linearity of the quay. Seating, sculptures, interpretation panels will populate the space converting the exiting quay into a vibrant, pleasant and secure public realm.

8.4 SCALE AND APPEARANCE

The development is predominantly two-storey set on a plinth of between 1.0 and 1.5 metres (to mitigate flood risk), reflecting the dominant scale of the early buildings on site and the buildings in Foundry. The foodstore and the terraced houses are two-storey buildings, while the mixed-use retail units at either end of the terrace are four –storeys high to accommodate commercial at the ground floor and apartments on the floors above.

The current proposal is of considerably more modest scale than the outline application and design scheme consented in 2010, and remains subservient to the viaduct, so that this town feature retains its dominant visual status within the townscape. The dominant character of the revised proposal is a rectilinear emphasis, which echoes the simple north-south configuration of the historic development on South Quay.

The most dominant form is the food store that is located adjacent to Carnsew Road. It is articulated in two volumes, which differentiate the sales area and the backup service area, thus breaking down the mass and bulk of a large foot print building. The linear form of the backup service area continues in the Foundry Yard retail stores.

The proposed forms of the residential/mixed use development at the northern end of the quay draws inspiration from the industrial character of the heritage site, sharing their character with the foodstore and retail units in Foundry Yard and at the same time reflecting the massing and scale of the residential terraces of Penpole. (This extremity was historically landmarked with a flagpole.)

The materials proposed are contemporary (and appropriate to the climate and relatively exposed site) and resonate with the historical materials, to respect the industrial character of the site. For the linear elements (the backup service area of the foodstore, the Foundry Yard retail blocks and terraced housing) dark bricks are proposed for the facades as a contemporary interpretation of the ‘scoria’ blocks used in part to construct the quay walls and other buildings in Hayle. For the ‘bookends’ elements (the mixed used retail and residential blocks) “Corten” cladding (or similar) is proposed as an echo of the industrial character of the area.

Membrane roof ballasted with gravel/aggregate and planted with sea grasses and succulents or either accessible terraces are proposed as roof covering to give a “brown” finish and diminish the visual impact.

9 PP5 CONSIDERATIONS

9.1 Introduction

Planning Policy Statement 5: Planning for the Historic Environment (PPPS 5) 2010, sets out the Government's planning policies on the conservation of the historic environment. PPS5 is supported by a Practice Guide endorsed by Communities and Local Government, the Department for Culture, Media and Sport (DCMS) and English Heritage.

These PPS 5 considerations provide necessary information which will enable the planning authority to assess the likely impact upon the conservation area and other heritage assets, of the proposed new development.

"Conservation – the process of maintaining and managing change to a heritage asset in a way that sustains and where appropriate enhances its significance". (PPS5 annex 2: terminology). This conservation area epitomises the significance of change. It is the change that has occurred in its urban topography and design that has shaped and the emphatic characteristics that exist today.

9.2 PPS 5 policies

9.2.1 Policy HE6: guidance on information requirements for applications for consent affecting heritage assets

Particularly policy HE6.1 states that

"Local planning authorities should require an applicant to provide a description of the significance of the heritage assets affected and the contribution of their setting to that significance. The level of detail should be proportionate to the importance of the heritage asset and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset. As a minimum the relevant historic environment record should have been consulted and the heritage assets themselves should have been assessed using appropriate expertise where necessary given the application's impact..."

As recommended in policy HE6.1, an assessment of the significance of the heritage assets has been provided in the form of a conservation area appraisal, and it is believed that this document is, indeed, proportionate to the importance of the assets being considered. Heritage assets comprise the World Heritage Site, the Conservation Areas, the listed buildings, the scheduled monuments within the conservation area or immediately within its setting.

The comments on the previous planning application identified a series of concerns, which in turn have informed the new design and related changes.

Firstly, the new proposal has reduced the overall footprint of development on South Quay, changed the residential layout, enhanced the public realm and undertaken a different approach to the foodstore and parking area.

The location of the foodstore and its associated parking has been amended to better reflect the historic pattern of development on the site and to generate a vibrant and permeable new public realm

relating both to the town centre at Foundry Square and to Penpol Creek. The character of the residential development is informed by the industrial heritage of the site with no reference to traditional vernacular residential form. The new design is of a more modest scale, it remains subservient to the viaduct, so that this landmark feature retains its dominant visual status within the townscape, and the dominant character of the revised proposal is a rectilinear emphasis, which echoes the simple north-south configuration of the historic development on South Quay.

Beside the quay walls and the peninsula itself, the most significant historic assets as revealed through the workshop process, further archaeological investigation and the review of heritage considerations are the remains of Carnsew Dock and the sluicing mechanism from Carnsew Pool, which have been integrated into the new proposal. The archaeological investigation has revealed that the slipways are in poor conditions while the historical assessment has shown that slipways were somehow a flexible attribute of the quay as they changed through history accordingly to the necessity and usage of the dock and requirements of shipbuilding. The reinstatement of the buried slipways would be entirely contrary to accepted conservation philosophy as promulgated by both English Heritage and ICOMOS. This approach has appeared - in the light of the historical evidence and heritage significance - not appropriate, especially in consideration of the deteriorated state of the remains. Instead, the footing of the slipways have been used to guide the new layout in order to provide a design that does not damage the archaeological remains below and does not preclude future reinstatement of a period harbour configuration.

Linkages and connections to other parts of the town have been much better developed by the revised design scheme, emphasizing the necessity to better link visually and physically the Harbour and other parts of the city, in particular the Foundry, Penpol Terrace, and the Carnsew Pool. The restoration of the part of Carnsew Dock on the applicant site may become the catalyst for later full restoration by the adjoining owners. The Isis Garden and the triangular area between Carnsew Rd and Foundry Lane have been well integrated into the scheme, and the new bridge should provide the connection with Penpol Terrace.

The assessments and analyses that have been carried out have not only informed the design process, in its final stages, but also believed to be "sufficient to understand the potential impact of the proposal on the significance of the heritage asset."

9.2.2 HE 6.2 states that the information and the impact assessment should be set out within the design and access statement when required.

This requirement is not always practical or suitable. In this instance a series of documents, or chapters, have been produced in order that they can be read and understood with any of the other parts and statements that comprise the entire planning application.

9.2.3 Policy HE7: Policy Principles guiding the determination of applications for consent to all heritage assets.

Policy HE 7.2 states: 'In considering the impact of a proposal on any heritage asset, local planning authorities should take into account the particular nature of the significance of the heritage asset and the value that it holds for this and future generations. This understanding should be used by the local planning authority to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposals'.

The Outstanding Universal Values of the World Heritage Site, the significance of the Conservation Area and the individual heritage assets within, have been assessed, as described; however, the values that are held for this and future generations may be quite different. This is particularly important in respect of the extent and variety of heritage values and assets comprising the Cornwall and West Devon Mining Landscape World Heritage Site.

Also in accordance with the Government's objectives at paragraph 7 "[...] *The historic environment and its heritage assets should be conserved and enjoyed for the quality of life they bring to this and future generations*", the role of planning in this regard is to deliver sustainable development and conserve England's heritage assets, including through putting such assets to an 'appropriate and viable use'. It is considered that the proposal of redeveloping the currently vacant site is in the interest of the heritage assets' long term conservation for the appreciation of the present and future generations.

Policy HE 7.4 asks that local planning authorities should take into account: the desirability of sustaining and enhancing the significance of heritage assets, and utilising their positive role in place-shaping; and the positive contribution that conservation of heritage assets and historic environment generally can make to the establishment and maintenance of sustainable communities and economic vitality by virtue of the factors set out in HE 3.1 (Local Plan Policies).

These criteria are included in the policy HE 3.1, although the context at that point is in respect of regional spatial strategies and local development frameworks. 3.1 (i) is particularly important for understanding of the "character of the environment and an area's sense of place," and such understanding has clearly informed the design process and rationale in this case. HE 3.1 (iii) refers to the "stimulus that (the historic environment) can provide to inspire new development of imaginative and high-quality design". This epitomises the design ethos of this proposal.

The heritage asset comprising the WHS and the Conservation Area will, as a whole, be sustained and enhanced by the proposal, although there will be elements of an adverse impact, these can also be subjective and mitigated. Generally, the heritage assets in the harbour setting are relatively in poor condition, while the historical character of the site is faded, creating opportunities for intervention.

A new, carefully considered and aesthetically superior development will sustain and enhance the heritage assets. Seen as an element in the larger context the new buildings provide a high architectural value. The proposal creates, in essence, a new "place" which becomes intrinsic part of an established historic environment. The use of the new buildings brings economic vitality and numerous other benefits to area generally and to the wider context of Hayle. These benefits are also dealt with more detail below.

9.2.4 HE7.5 continues on the characteristics of the proposals: ‘

Local planning authorities should take into account the desirability of new development making a positive contribution to the character and local distinctiveness of the historic environment. The consideration of design should include scale, height, massing, alignment, materials and use’.

The proposed development has been very carefully considered and designed so as to ensure that its setting and its immediate context (within the Zone of Visual Influence) will be enhanced overall, after consideration of mitigating benefits where appropriate. An understanding of the significance and characteristics of both the individual buildings and the historic environment has informed the design concept throughout.

The particular design considerations of scale, height, massing, alignment, materials and use have been addressed fully in the Design and Access Statement and so are only lightly touched upon here.

As to scale

Scale, is often misunderstood and should not be confused with "size" or "bulk". Scale should be considered in terms of the constituent contribution it makes to the entire Conservation Area and within its Zone Of Visual Influence. It should also reflect the scale of the elements that help to characterise not just the Conservation Area but the whole WHS, as translated into the architectural design. This is best understood by looking at the individual elements that go to make up the construction and aesthetic sensibilities of the buildings and contribute to their own intrinsic character.

The scale also provides the important texture of the facades treatment which, dependent upon, distance and visual context, will have a different response – observers closer to the building will appreciate the elements of the scale which go to make up its form, rather like a mosaic; and in distant views it is the form, colour and overall texture which can be appreciated. The balance of these criteria within the conservation area and wider context, are important contributors to the sustainability of the character of the conservation area.

As to height

The height of the buildings is a direct product of their use and capacity which has been interpreted through an iterative design process. The result is an arrangement of distinct volumes varying in form, bulk and shape, with a main building of sculptural form, although subservient in height to the dominant presence of the railway viaduct. This also reflects the historic precedents of built form previously on the site.

As to Massing

The evolution of the massing, has, again, been fully expounded in the Design & Access Statement. This has essentially been a "balancing exercise" where the mass could be distributed differently on the site, which would have resulted in elements of different heights and different form. Instead, the different parts of the development reflect their different functions, and have resulted in the configuration proposed. The massing is also dictated by structural and constructional design issues in order to ensure that the archaeological remains can be preserved within a minimum level of risk due to the construction process and subsequent use. The resultant articulation of massing provides the conservation area with a new element of visual enhancement and élan. The bulk of the building's mass is concentrated at the south, as were the previous buildings on the site. The footprints are not matched nor would it be desirable or practical to do so. The new building covers the area occupied by the shipyard, mills and stores, and has an affinity with that configuration. The shipyard was largely hidden from views in the public realm and when that was demolished it left an open space still concealed from view by perimeter buildings. That is similar to the proposal where the perimeter of the foodstore is seen from the public realm without an immediately obvious reference to its overall footprint.

As to Alignment

Alignment, in the usual sense of taking cognizance of particular urban or landscape form, has slightly different connotations in this context. The site has constraints which are result of its history; and the

proposed buildings had to be designed to fit onto or into, those constraints. "Orientation" maybe more appropriate criterion than "alignment" and they have a similar importance in this case. The positioning of the constituent elements of the scheme has been considered in respect of the historical alignment and the relationship with the conservation area as a whole, and the wider context. The planform has been articulated to align with the road. Although it does not follow it precisely.

As to Materials

The materials proposed are contemporary and resonate with the historical materials, to respect the industrial character of the site.

The food store, which is articulated in two volumes to differentiate the sales area and the backup service area, comprises two different cladding materials. For the sales area, which is in proximity of Isis Garden and constitutes the backdrop of the first section of the eastern promenade, a Corten (or similar) cladding is proposed. For the backup service area, as well as for the Foundry Yard retail blocks and terraced housing, the linear elements of the scheme, dark brick cladding is proposed as a contemporary interpretation of the 'scoria' blocks used in part to construct the quay walls, and once common material in Hayle as they were provided free to employees of the Cornish Copper Company.

The 'bookends' elements next to terraced houses and containing retail and apartments are also proposed to be clad with Corten (or similar) as an echo of the industrial character of the area.

Membrane roof ballasted with grave/aggregate and planted with sea grasses and succulents or either accessible terraces are proposed as roof covering to give a "brown" finish and diminish the visual impact. This will also provide an element of visual interest when viewed from high ground and the viaduct.

The hard landscaping - paving, seating, steps - presents a simple palette of materials to reflect the characteristics of the existing quay and listed buildings, which remain in-situ with their coping stones as a visible feature. The paving is proposed to be in cast-concrete with non-slip surface treatment, while the flood defence walls, in the forms of seating and steps are proposed to be in pre-cast concrete. Board marked concrete is utilised to mark the nodal points, while granite flag stone inlays are inserted to echo the existing granite quay wall top. Concrete, timber and Corten are utilised for seating, sculpture and interpretation panels.

9.2.5 Policy HE9 sets out principles guiding the considerations for applications for consent relating to designated heritage assets.

Policy HE 9.1 states that: *"There should be a presumption in favour of the conservation of designated heritage assets and the more significant the designated heritage asset the greater the presumption in favour of its conservation should be."*

This appears to be a rather problematic policy. "Conservation" is defined in PPS 5 as", the process of maintaining and managing change to a heritage asset in the way that sustains and where appropriate enhances its significance." (Annex 2: Terminology). This policy therefore seems to be saying that there is a presumption in favour of (managed) change, although there is also a philosophical difficulty in the process of "maintaining change"; and the question has to be asked how maintaining change can sustain (preserve?) the significance of a heritage asset? In this instance the heritage assets are the Quays – particularly their masonry walls – and they are to be preserved and repaired. Within the asset

that comprises the conservation area the entire quay structure can be included and the addition of built form upon it - a process for which it was originally designed - would also conserve it. The function of the quay for maritime and associated activities is not diminished so that element of its significance is also conserved.

9.2.6 Benefits

HE 9.2 states that *"where the application will lead to substantial harm to or total loss of significance local planning authorities should refuse consent unless it can be demonstrated that: the substantial harm to or loss of significance is necessary in order to deliver substantial public benefits that outweigh that harm or loss;"*

There are no definitions of "substantial" or "less than substantial" harm. Impact, per se, is not necessarily "harm". In this proposal, there are, ostensibly, various degrees of harm and benefit, in respect of impact upon the WHS, the Conservation Area as a whole, and the particular assets within it. Therefore it is considered appropriate to address the issues of both "substantial" and "less than substantial" harm.

The accompanying Heritage Impact Appraisal deals in detail with these impacts.

The listed heritage Assets comprise the walls to the quay, docks and sluices and these are all destined for repair and preservation so no harm is occasioned.

In respect of Heritage Asset comprising the conservation area, there is impact. And although it arguably does not affect the conservation area "as a whole" (HE9.5 below and the "Turnmill" case) the construction of new building is not likely to cause substantial harm.

In respect of the Heritage Asset comprising the World Heritage Site this is more problematic but would seem to also invoke HE 9.5 and has to be assessed in respect of the WHOLE WHS. In that regard it is difficult to see how a development on one site within one of ten extensive areas, can cause harm to the whole WHS?

Policy HE 9.4, which states that: *"Where a proposal has a harmful impact on the significance of a designated heritage asset which is less than substantial harm, in all cases the local planning authorities should: should*

(i) weigh the public benefit of the proposal (for example, that it helps to secure the optimum viable use of the heritage asset in the interests of its long-term conservation) against the harm; and

(ii) recognise that the greater harm to the significance of the heritage asset the greater the justification will be needed for any loss.

In this instance there is no "loss". The proposed development is being erected on cleared site. There is a 'potential' loss in what regards to the buried archaeological remains, therefore there are issues of setting and the impact thereon which have been addressed through the design process to reduce ground disturbance in areas where significant archaeology is located. A detailed mitigation strategy will be prepared in consultation with English Heritage and the HEPAO to ensure that buried heritage assets are protected both during development and during use of the site. There could be an implied "loss" of the present status quo - i.e. the cleared derelict site, but that has no significance historically.

However, in respect of both "substantial" and "less than substantial" harm, public benefits are to be weighed against the proposal. This is an essential element in the assessment and justification for this development. The benefits are detailed in the accompanying Planning Statement and the Design & Access Statement and can be summarised as follows:

- (i) "The proposed development has the potential to improve social cohesion in the town by providing a welcoming and engaging place, which would encourage the local population to take further advantage of the harbour.
- (ii) The close proximity of the new buildings to the town centre will promote social inclusion by ensuring all building users and residents have excellent access by walking, cycling and public transport to the city shops, services and amenities.

In respect of the harm that may occur to the WHS and the Conservation Area, as mentioned above, this has to be assessed upon those areas "as a whole". The Zone of Visual Influence of the development is wide, and it is acknowledged that there is relatively high receptor sensitivity. However, the characteristics of the WHS and the Conservation Area are not substantially eroded in any way by this intervention.

Notwithstanding that this statement posits that no harm is caused to the WHS and the Conservation Area, as a whole, by this proposal. There is a consideration of "public benefit" deriving from the proposal. These are not necessarily "Heritage benefits" as no such term exists within PPS5.

The public benefit that the proposal provides is also in the "optimum viable use" for this particular site, as well as the enhancement provided by the design quality of the proposal.

English Heritage's Conservation Principle 4.6 states that: *"New work should aspire to a quality of design and execution which may be valued both now and in the future. This neither implies nor precludes working in traditional or new ways, but should respect significance of a place in its setting."* Whilst it is accepted by the applicant that *"...a high quality of design of proposed intervention is not mitigation; it is essential in any significant place"* (EH Principles paragraph 104) the new development will nevertheless, have a far greater value for future generations due to its inherent sustainability and its emphatic design qualities. In this way, it meets the requirements of policy 9.4 (i) above.

Although fine architectural design may not be mitigation, PPS 5 (and Conservation Principles) does not rule out such criterion as an essential element of justification. There will be a clear public benefit in the creation of an architectural statement by architects of some renown. Fine architecture is created entirely for public benefit; and all buildings that address the public realm in anyway whatsoever will impart that value to the receptors. This may also have the added benefit of conferring an associative value (in respect of the architects) to the aesthetic value in any future reappraisal of heritage values and significance.

HE9.5 Not all elements of a World Heritage Site or Conservation Area will necessarily contribute to its significance. The policies in HE9.1 to HE9.4 and HE10 apply to those elements that do contribute to the significance. When considering proposals, local planning authorities should take into account the relative significance of the element affected and its contribution to the significance of the World Heritage Site or Conservation Area as a whole. Where an element does not positively contribute to its significance, local planning authorities should take into account the desirability of enhancing or better revealing the

significance of the World Heritage Site or Conservation Area, including, where appropriate, through development of that element. This should be seen as part of the process of place-shaping.

South quay undoubtedly contributes to the significance of the conservation area and the WHS. The relative significance needs to be determined. This can be assessed from the detailed analysis contained in this document and the HIA. At present, the derelict site area cannot be regarded as a positive contributor visually, other than in respect of the walls, which are listed. The site does have historic significance and as expressed in the various heritage values; however the site under consideration for determination now is only a part of the area once occupied by Harveys, which confers its significance on the conservation area and WHS. Also the most important and most complete element of the quay - the Carnsew Dock is bisected by ownership boundaries and is buried, which undermines the potential for conservation.

The relative significance within the conservation area as a whole is therefore diminished.

Similarly, and to a greater degree, the relative significance in considering the contribution of the surviving part of the south quay comprising this application within the WHS as a whole, must also be relatively minor.

Policy HE 10 additional policy considerations for development affecting the setting of a designated heritage asset:

Policy HE 10.1: *"When considering applications for development that affect the setting of a heritage asset, local planning authorities should treat favourably applications that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset."*

The heritage assets are those whose settings are affected by the proposal, comprising of WHS, the Conservation Area, the listed buildings and the other unlisted buildings, and others which may be positive contributors. These have been examined in the HIA and those which have recognised heritage values within the immediate context of the subject building and its wider setting which have an assertive or dominant contribution in the townscape have been noted. Dominance is not necessarily the product of mass bulk or height, but also of articulation, detailed design and materiality.

The impact upon the settings of these assets is appraised accordingly in the Heritage Impact Assessment.

9.3 Further considerations in respect of the PPS 5 Historic Environment Planning Practice Guide

9.3.1 New development: design in context

Para 80. *Policies HE 7.5, HE 9.5 and HD 10 require attention to the extent to which design of the new development contributes positively to the character, distinctiveness and significance of the historic environment. A successful scheme will be one whose design has taken account of the following characteristics of the surroundings, where appropriate:*

- 1. The significance of nearby assets and the contribution of their setting.*

- 2. The general character and distinctiveness of the local buildings, spaces, public realm and the landscape.*
- 3. Landmarks and other features that are key to a sense of place.*
- 4. The diversity or uniformity in style, construction, materials, detailing, decoration and period of existing buildings and spaces.*
- 5. The topography.*
- 6. Views into and from the site and its surroundings.*
- 7. Green landscaping.*
- 8. The current and historic uses in the area and the urban grain.*

Some or all of these factors may influence the scale, height, massing, alignment, materials and proposed use a successful design.

All the relevant elements have been addressed in the HIA, and have directly informed the design process. This has been elucidated in the Design & Access Statement and in addressing PPS5 policies above.

10 English Heritage "Conservation Principles"

10.1 Background

Although PPS 5 mentions the English Heritage Principles, they are not emphatically put forward as a requirement. Paragraph 19 of the PPS 5 Practice Guide states that the concept of "heritage values" "... has been explored by English Heritage at a more philosophical level in "Conservation Principles". Then goes on to say that "This is simply another way of analysing... significance."

The footnote in PPS 5 Terminology in respect of significance refers to the four heritage values: aesthetic, evidential, historic and communal; but adds that "This is not policy, but a tool to aid analysis." It should be remembered that these terms are not used in the Planning (Historic Buildings & Conservation Areas) Act, 1990 which is not superseded or altered by PPS 5.

10.2 "Integrating Conservation with Other Public Interests,"

10.2.1 Conservation Principles para 149:

Changes which would harm the heritage values of a significant place should be unacceptable unless: (is assumed that all these criteria should be met, but as there is no use of the connecting "and" neither is there an alternative "or".)

a). The changes are demonstrably necessary either to make the place sustainable, or to meet an overriding public policy objective or need.

There is clearly, in this instance, "an overriding public policy objective or need". This is fundamental to the development and is entirely based upon the need of revitalization of the area within the framework of WHS protection and management.

b). There is no reasonably practicable alternative means of doing so without harm

The Design & Access Statement details the option studies and appraisals which were carried out prior to the final selection of the design. Locating this development and these uses elsewhere in the WHS and/or Conservation Area would raise similar issues in respect of height, bulk, and form; and may even have wider implications for harm. The site meets other planning policy objectives for economic regeneration and siting for a foodstore/supermarket.

c).that harm has been reduced to the minimum consistent with achieving that objective;

Such harm as may occur to heritage assets has been reduced through the design process and in the siting and articulation of the buildings within the development. The design quality also contributes to a reduction in any perceived harm

d). It has been demonstrated that the predicted public benefit decisively outweighs the harm to the values of place, considering

- *its comparative significance,*
- *the impact on that significance, and*
- *the benefits of the place itself and/or the wider community or society as a whole.*

These criteria have all been carefully considered throughout the design process and should be noted that the final point, in respect of benefits has been an essential element in the appraisal process. The benefits listed above emphatically meet this final criterion. For that reason alone, the proposal meets all necessary policy requirements for its positive determination.