



St Mary's Harbour Works, St Mary's, Isles of Scilly Historic Building Recording and Archaeological Watching Brief

Cornwall Archaeological Unit

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St Mary's Harbour Works St Mary's, Isles of Scilly

Historic Building Recording and Archaeological Watching Brief

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The CAU Project Manager was Charlie Johns, the historic building recording was carried out by Nigel Thomas and Eric Berry, Jacqui Ramsden helped with the watching brief. Thanks to Eric Berry, Jacqui Ramsden and Rients Jan Veldkamp for supplying images for use in this report.

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

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Cover illustration: *St Mary's Harbour in July 2015.*

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Abbreviations

CAU	Cornwall Archaeological Unit
CIfA	Chartered Institute for Archaeologists
HE	Historic England (formerly English Heritage)
HER	Cornwall and the Isles of Scilly Historic Environment Record
NGR	National Grid Reference
OS	Ordnance Survey

1 Summary

This report describes the results of a programme of historic building recording and archaeological monitoring carried out between October 2104 and March 2016 by Cornwall Archaeological Unit for Kier Infrastructure during widening and extension works to St Mary's Harbour in the Isles of Scilly.

The existing quay is a Grade II Listed Building comprising the original quay, dating to the early seventeenth century, together with a number of subsequent extensions. The first extension in 1835–8 incorporated Rat Island into the structure and provided deeper water berths. The construction was of vertically-coursed granite faces founded mainly on the granite bedrock or sand overlaying the bedrock. The quay had two further extensions, by 40m length in 1889, and by 3m in length and 3m in width in 1999/94 when the inner quay walls from the Harbourside building to the end of the quay were encased in pre-cast concrete blocks fixed to steel girders; the end of the quay was also clad with timber buffering.

The current alterations and extension to the existing quay which were covered by the archaeological recording comprised:

- A 23m long extension to the north-east end of the quay.
- Quay widening and a new wall to the south west.
- New pedestrian paving along the quay and groundworks at the rear of the Ticket Office.

The extension to the end of the quay first involved dredging to remove sediment and then breaking away the bedrock to provide a level surface. A number of finds were recovered but these were chiefly spent .303 cartridges and post-medieval and modern ceramics. These were recorded but not retained. The extension did not involve any disturbance to the existing quay; precast concrete sections were laid into a 'receipt' frame and then joined to the existing quay.

Breaking out of the quay wall for the quay widening construction began in the week beginning 27 July 2015 and was completed in the week ending 21 August 2015. The demolition works were monitored and a photographic record made of the process. Re-construction of the wall made use of the existing granite blocks but the keystone has been kept separate for future use elsewhere.

The surface of the existing pedestrian pathway on the quay, laid in c 2005, was very uneven and this was re-laid to make it easier for people to walk on. The work was completed by June 2015. Additional groundworks were carried out at the rear of the Ticket Office in summer 2016. No archaeological features or finds were recorded during these works.



Fig 1 Location map.

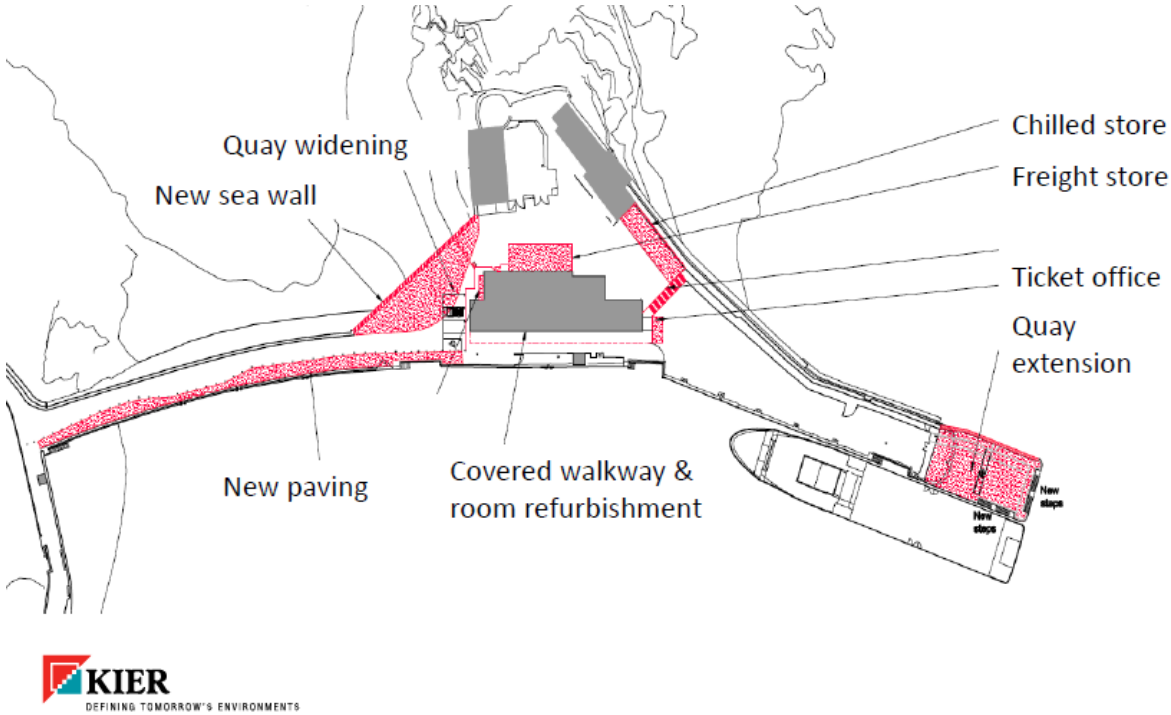


Fig 2 Outline scope of the project.

2 Introduction

2.1 Project background

Planning application P/12/096/LBC was for 'proposed demolitions, alterations and extensions to existing buildings to provide enhanced passenger and freight facilities at St Mary's Harbour (Fig 1). Extension of main pier towards north east, widening of quay wall to south west to improve access to freight yard. This application was approved subject to a number of conditions. Condition 6 refers to requirements for archaeological recording in advance of and during the works.

In September 2014 the Cornwall Archaeological Unit (CAU) was commissioned by Caroline Leatherdale on behalf of Kier Infrastructure to carry out the necessary archaeological work. A brief outlining the required historic building recording and archaeological work had been prepared by Dan Ratcliffe, the local Historic Environment Planning Advice Officer (see Appendix 1) and a Written Scheme of Investigation was prepared by CAU (Appendix 2) which was approved by the local planning authority.

2.2 Project scope

The outline scope of the alterations and extension to the existing quay which were covered by the archaeological recording are shown on Figure 2. These comprised:

- A 23m long extension to the end of the quay at the north east.
- Quay widening and a new wall to the south west.
- New pedestrian paving along the quay.

This recording work did not cover the refurbishment of the Harbourside Building or repairs to the quay surface necessitated by storm damage in early 2014.

2.3 Aims

2.3.1 Building recording

The aim of the historic building recording was to make an Historic England Level 2 – 3 photographic and descriptive record of those parts of St Mary's Harbour which would be affected by the development, taking into account:

- Site layout and organisation
- Function
- Materials, method of construction
- Fenestration
- Internal arrangements
- Original fixtures and fittings
- Subsequent fixtures and fittings
- Evidence of use and status
- Ephemeral evidence of occupation and use for instance any evidence of historic graffiti
- Date/period of initial build and subsequent alterations

The building recording was not intended to produce a comprehensive analysis of the quay but to produce evidence capable of later further analytical development.

2.3.2 Archaeological recording

The site specific aims of the watching brief were to:

- Establish the presence/absence of archaeological remains.
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered.

- To establish the nature of the activity on the site.
- To identify any artefacts relating to the occupation or use of the site.
- To provide further information on the archaeology of the St Mary's Harbour from any archaeological remains encountered.

2.4 Methods

2.4.1 Desk-based assessment

During the desk-based assessment historical databases and archives were consulted in order to obtain information about the history of the site and the structures and features that were likely to survive. The main sources consulted were as follows:

- Cornwall and Scilly HER
- Images of England online listed buildings database
- Early maps and photographs (see Section 10.1)
- Published histories (see Section 10.2)

2.4.2 Historic building recording fieldwork

Photography was a primary recording medium. Archive quality (monochrome film-based) photographs were taken with a 35mm SLR camera fitted with appropriate lenses. Digital photographs were taken using a high resolution camera.

2.4.3 Watching brief fieldwork

The watching brief was carried out according to the methodology set out in the Written Scheme of Investigation (WSI) for the work (Appendix 2), based on the brief for archaeological recording by the Historic Environment Planning Advice Officer Adviser, Cornwall Council (Appendix 1).

2.4.4 Post-fieldwork

The monochrome photos were processed by a photographic laboratory and the results output as a conventional contact sheet as well as scanning to CDR. Digital photos were processed using Adobe Photoshop Elements software. A selection of representative colour photos has been included in this report.

3 Location and setting

St Mary's is the largest of the islands of Scilly being approximately 4km long by 3km wide. It has the largest population of the islands with about 80% of the total population, and it is the hub of commercial and social life. The main settlement, Hugh Town, is situated on a narrow sandy tombolo towards the south-west of the island and St Mary's Harbour is on the north side of Hugh Town (Fig 1).

The existing quay comprises the original early seventeenth century quay (NGR SV 90133 10729 to 90237 10729) together with a number of subsequent extensions (SV 90188 10742 to 90222 10906). The first extension in 1835–8 incorporated Rat island into the structure and provided deeper water berths. The quay had two further extensions, by 40m length in 1889 and by 3m in length and 3m in width in 1994 (Scott Wilson Fitzpatrick & Co Ltd 2005, 2-1).

4 Designations

The quay at St Mary's Harbour is a Grade II Listed Building (Fig 3). The Listing description includes 'Quay and breakwater. Begun by Francis Godolphin soon after 1601, rebuilt 1740 and 1748; new pier extending north to Rat Island built 1835-8 for Augustus Smith, Lord Proprietor of the Islands; lengthened 1889 for the flower trade. Granite rubble to earlier arm into harbour partly in vertically-coursed dry stonewall technique, and shaped granite blockwork to later arms. Breakwater has canted wall on sea side.

Two granite piers at south entrance and cast-iron upturned cannon reused as bollards. The construction of a pier for the new harbour, St. Mary's Port, was associated with the fortification of the Hugh begun by Godolphin which included Star Castle and the Garrison walls'.

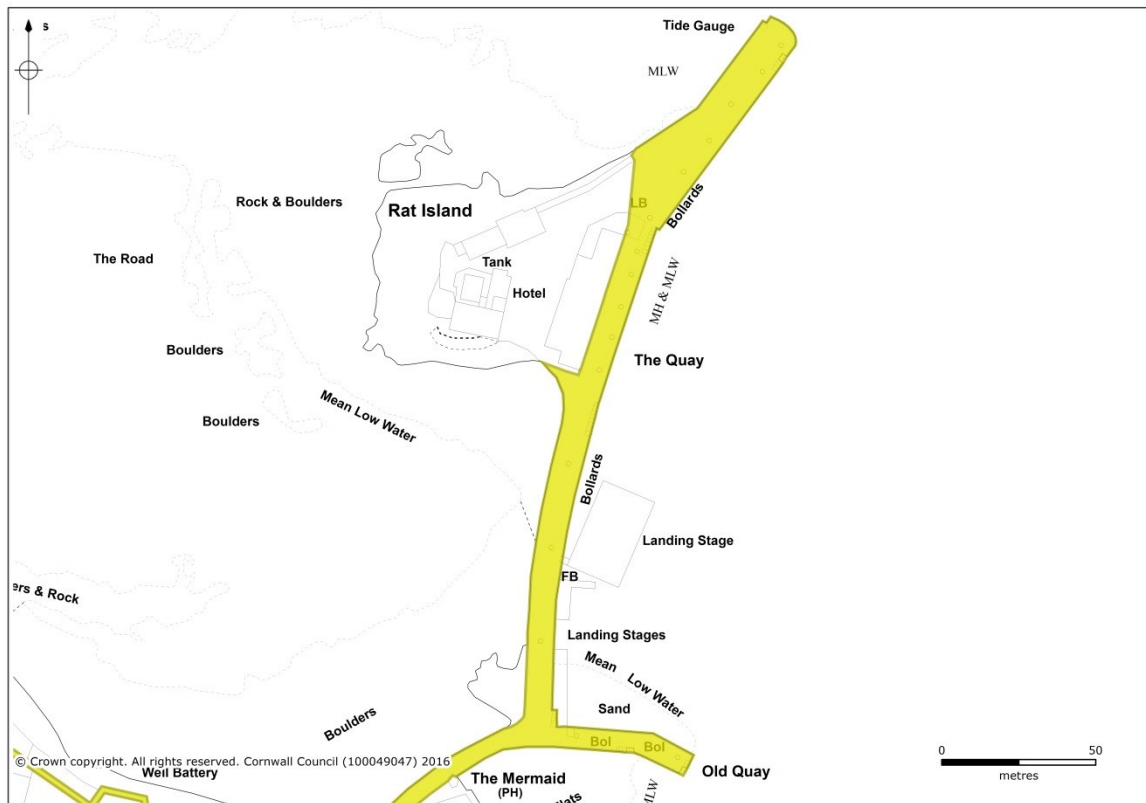


Fig 3 Map showing the Listed components of St Mary's quay (shaded yellow).



Fig 4 An early nineteenth-century reproduction of a view of Hugh Town taken in 1669 (Magalotti 1821, facing page 112)

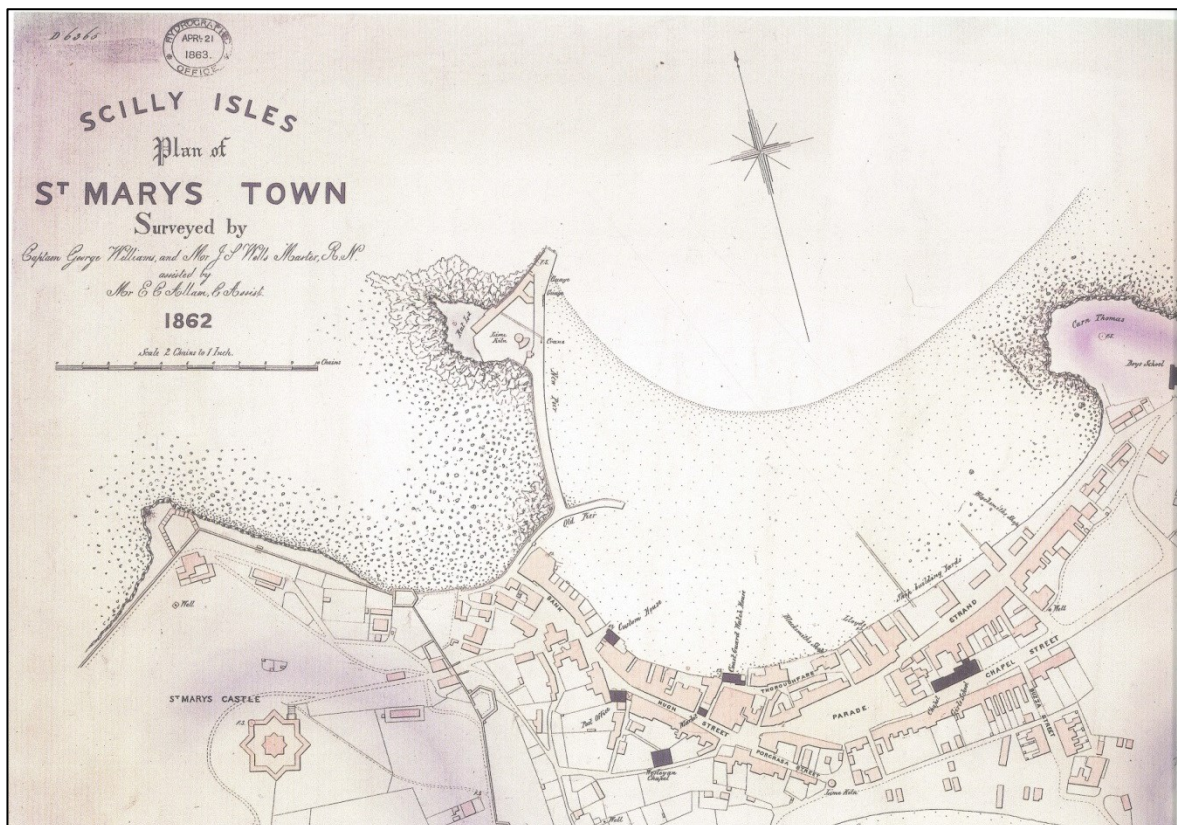


Fig 5 The 1830s extension to the quay shown on an 1862 plan of Hugh Town by Captain George Williams and Mr J S Wells (Sourced from the UK Hydrographic Office, www.ukho.gov.uk).

5 Site history

Hugh Town owes its origins to the construction of Star Castle and associated structures in the 1590s and of the quay in c 1601 on the sheltered northern side of the island directly below the gateway to the military complex (Fig 4; Bowden and Brodie 2011) — the proximity of a medieval chapel to the location of the new quay suggests that this may already have been an established landing place (Kirkham, forthcoming).

The original early seventeenth century quay was rebuilt in 1749–51, 'At the west end of the town a pier was built about the year 1601, which was become very ruinous; it was rebuilt by the late Earl of Godolphin, in an elegant manner at the expense of eleven hundred pounds. It was begun in the year 1749, and finished in 1751; it is som[e] hundred and thirty feet long, twenty feet wide in the narrowest part, twenty-three wide at the pier head, as many high from the foundation, and has there sixteen feet water at spring tide, and ten at neap tide; it will secure vessels of one hundred and fifty tons burden, not only close to the quay, but also along the strand of the town' (Troutbeck nd [c 1794], 38).

The lease of Scilly taken up in 1834 by Augustus Smith required completion of a new church and a large extension to Hugh Town quay. (Fig 5) Both were achieved before the end of the 1830s — the New Quay being extended out to Rat Island with a monumental entranceway built on Old Quay — and marked the beginning of a significant period of change for the town. The St Mary's stonemason Robert Maybee, born in 1810, recalled the period following Smith's arrival in Scilly: 'It was the time the new pier was building . . . and the new church . . . and most of the big houses were being built at the same time' (Maybee 1884, 15).



Fig 6 St Mary's Harbour in c 1875, with a lifeboat from the wrecked Schiller in the foreground. The quay was extended by 40m in 1889 (© Gibson Collection).

In 1889 Augustus Smith's heir, T A Dorrien Smith — known as Algy — extended the quay by 40m length in 1889 to serve the fishing and the rapidly expanding flower trades. The Duchy made improvements in 1926, when the café (now the Harbourside building) was built, and also in 1970; the emphasis then being on holiday passengers transported on the Scillonian II or on the tripper boats to the off islands (Gill 1975, 110).

The quay underwent massive improvements throughout the winter of 1993/4 when it was extended by 3m in length and 3m in width to facilitate modern handling methods

and tourists. The inner quay walls from the harbourside building to the end of the quay were encased in pre-cast concrete blocks fixed to steel girders; the end of the quay was also clad with timber buffering. At this time the quay was resurfaced and a cannon, reputed to be from HMS Colossus, wrecked in 1798, which had been used as a mooring bollard since being salvaged in 1857 was removed to make way for more modern fixtures (Gibson *nd*, 15–16). The surface of the pedestrian pathway along the quay was again re-laid by Dean and Dyball Construction Ltd in c 2005, but it proved to be uneven and uncomfortable to walk on.

6 Previous archaeological work

A baseline archaeological assessment was carried out in 2005 as part of the 'Environmental Statement' for previous development proposals for the quay (Scott Wilson Kirkpatrick & Co Ltd 2005).

As part of the archaeological assessment, geophysical survey data was acquired between 30 October and 1 November 2004 from the survey vessel MV Enterprise by Titan Environmental Surveys Ltd. The survey area was located around the quay at St Mary's Harbour near Rat Island. The survey area was rectangular, 500m long and 600m wide orientated N-S between 89900E, 11200N and 90500E, 10700N (OSGB). The geophysical data comprised sidescan sonar, sub-bottom profiler and single beam echosounder data and was reviewed by Wessex Archaeology in order to determine the archaeological potential of the survey area (Baggaley 2004).

The review identified 15 sidescan sonar anomalies to the north-west of the current quay, all of which were considered to be of low archaeological potential (Baggaley 2004, appendix 1, fig 2). The engine of the Sunderland MK IIIv DD838 Flying Boat from 1944 is thought to lie to about 10m to the west, or possibly north-west, of the quay. None of the geophysical survey anomalies could be confidently identified as an aircraft engine. However it was considered possible that the sidescan sonar anomalies to the north-west of the quay (WA3006, WA3007, WA3014 and WA3015) could be the aircraft engine (Baggaley 2004, 5). Otherwise it was considered unlikely that these anomalies relate to archaeological remains in the area and were probably underwater debris which, if necessary, could be moved during the construction works (Scott Wilson Kirkpatrick & Co Ltd 2005, 5-11).

All of these anomalies lay outside of the current quay extension footprint, so inspection of the debris by an archaeological diver was not required in the brief for archaeological recording (Appendix 1).

The environmental appraisal (Massey 2004) and the interpretation of the geophysical survey data also indicated that the potential for peat and submerged palaeoenvironmental deposits in the study area was low.

No specific formal archaeological desk based assessment was submitted in support of the application although the AECOM Environmental Statement Addendum supporting the application noted the following relevant evidence:

- This quay was extended out to Rat Island in the 1830s, extended again in the late 19th century, and further widened and extended in 1994.
- Before the construction of the pier, Rat Island had housed a blockhouse and a limekiln, while sections of the island are reported to have been quarried to produce stone for the Bishop Rock lighthouse which was started in 1858 and heightened in 1882.
- A pillbox was constructed on Rat Island during World War Two, while the remains of an engine from a Sunderland flying boat have also been recorded to the west or north-west of the pier, although this does not lie in its original position as it was moved to its present location to stop it being an underwater hazard/obstruction. This latter site was found to be in area of anomalies identified during geophysical survey (Baggaley 2004).

- Numerous onion bottle pontills have been recovered from the bay and it has been suggested that these are from a wreck that has not been identified thus far.
- A quernstone and other items have been recovered from the area around Rat Island.
- An iron chain and anchor from the Kitty O'Flanagan, which was wrecked on the island in 1938, is still in the area and may indicate where the wreck lies.
- Pottery has been recovered from the area of the current pier which may denote an earlier submerged site.
- Recent work has involved removal of the upper surface of the pier and the core of the pier was found to contain guns and tree stumps with the sea visible in the bottom (see Gibson nd, 16).

7 Historic building recording

A visit was made to St Mary's Harbour in October 2014, to undertake the equivalent of a Level 2 historic building record (a photographic and descriptive record) of the sections of quay that will be altered by the development. Specifically this was the end of the quay at the north east and the area of wall to be demolished during the quay widening at the south west as well as the pedestrian walkway (Figs 7–14). A boat was provided by Kier, by arrangement with the harbourmaster, to enable the photographic recording the end of the quay.

The two arms of the quay represent significant pieces of historic engineering. The older, c 1601, structure, approximately 100m long by 12m wide, is particularly distinctive with its facing of large vertically-set coursed rubble and surface of weathered cobbles.

The quality of construction making up the late 1889 century portion and breakwater walling at the landward end is also impressive, being of vertically-coursed, squared granite faces founded mainly on the granite bedrock or sand overlaying the bedrock.

During the winter of 1993/94, the seaward extension of the quay was encased in pre-cast concrete blocks fixed to steel girders in (Gibson nd, 15–16) so that none of the earlier structure is visible (Figs 8 and 9). The end of the quay was also clad with timber buffering at this time (Figs 10 and 11).



Fig 7 The Harbourside buildings and quay (photo: Eric Berry).



8 End of the quay (photo: Eric Berry).

Fig



Fig 9 Detail of pre-cast concrete blocks facing the inner side of the quay (photo: Eric Berry).

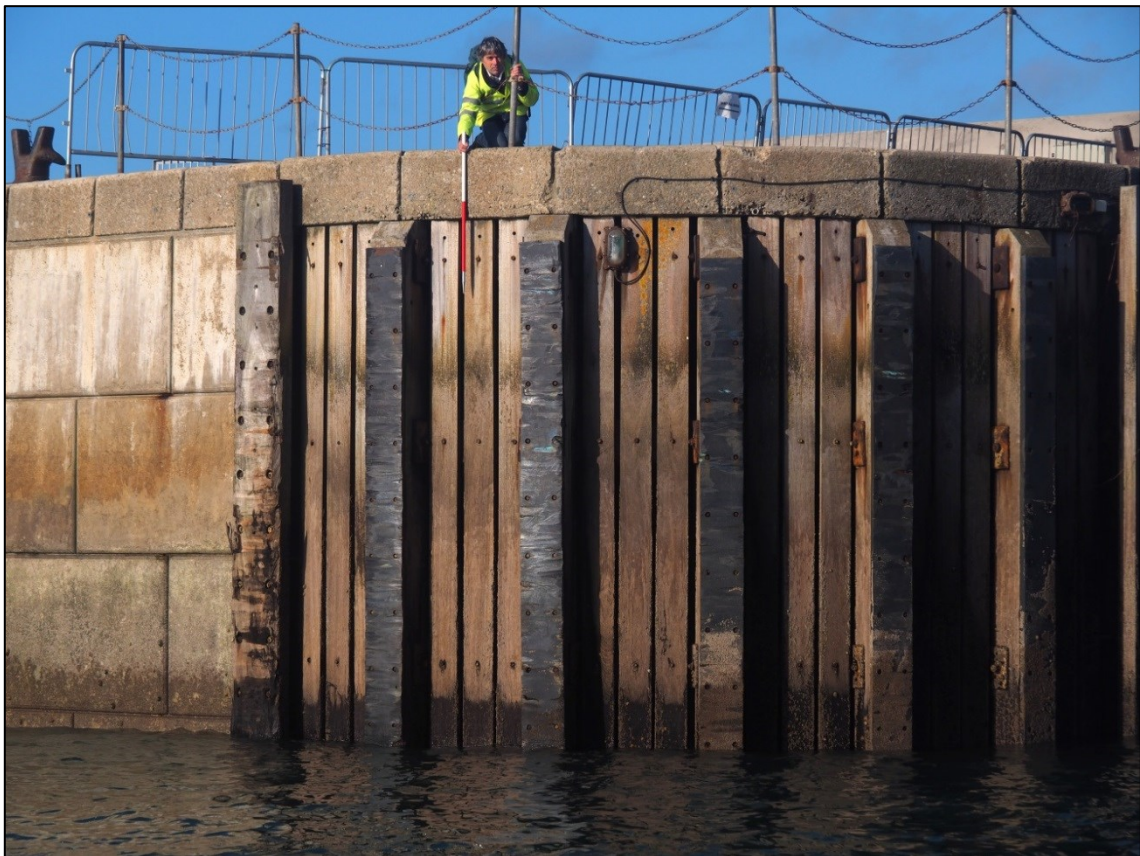


Fig 10 Vertical timber buffering at the end of the quay (photo: Eric Berry).



Fig 11 The outer side of the end of the quay (photo: Eric Berry).



Fig 12 The outer side of the quay with the Scillonian berthed (photo: Eric Berry).



Fig 13 The area to be widened at the back of the quay (photo: Eric Berry).



Fig 14 Detail of the area to be widened at the back of the quay (photo: Eric Berry).

8 Archaeological monitoring

8.1 Quay extension

Work on the 23m extension to the quay was scheduled to begin on 5 January 2015 using an excavator on a barge to dredge the area at the end of the quay (Fig 15). However, bad weather and mechanical problems delayed the commencement of dredging until early March. Dredging involved removing the sediment on the seabed and then breaking away the bedrock to provide a level surface. The excavated material was moved to a storage area at Porthloo by landing craft. The extension did not involve any disturbance to the existing quay; precast concrete sections, brought from Plymouth, were laid into a 'receipt' frame and then joined to the existing quay (Figs 16 – 18).

The last set of concrete sections were laid during the week ending 21 August 2015.

8.2 Quay widening

High levels of legacy pollution were found in samples of sand and silt taken between the fuel yard and the Mermaid car park in early December 2014 and this contamination caused delay to the widening at the rear of the quay (Fig 19) which was to be carried out using concrete blocks anchored into the bedrock.

The breaking out of the quay wall in anticipation of the quay widening construction works commenced in the week beginning 27 July 2015 and was completed in the week ending 21 August 2015 (Fig 20) when construction of the ramp commenced (Fig 21). The dredged material at Porthloo was used as backfill within the quay widening works and to create a temporary working platform.

The demolition works were monitored and a photographic record made of the process (Figs 22 and 23). The construction made use of the existing granite blocks but the keystone has been kept separate for future use elsewhere (Fig 24).

8.3 Pedestrian pathway and other groundworks

The surface of the pedestrian pathway laid by Dean and Dyball Construction Ltd in c 2005 was very uneven (Fig 25) so this was re-laid to make it easier to walk on (Fig 26). The work completed by May 2015.

Groundworks to the rear of the Harbourside building were also monitored (Fig 27). No archaeological features were uncovered.

8.4 Finds summary report

Because of the duration of the project and low potential for archaeological remains it was impractical to carry out a continuous watching brief to monitor for finds. The stockpiled dredged material at Porthloo was inspected for finds by the project archaeologist (Figs 28). Other finds were reported to the Isles of Scilly Museum by Kier workers. The finds chiefly comprised spent .303 cartridges, post-medieval and modern ceramics, glass bottles and metal objects including a knife handle and lamp fitting (Figs 29 and 30). The finds were recorded but not retained except for a complete late 19th century ink bottle made by J Bourne & Son of Denby (Fig 31). The Bourne company dates back to 1806, when William Bourne, a local entrepreneur, learned of the exceptional clay discovered during construction of a road in Derbyshire. He acquired a piece of land and production of the pottery was started in 1809, with William Bourne's son, Joseph at the helm. The 'J. Bourne & Son' mark was not used until about 1850.



Fig 15 The dredge vessel (photo: CAU).



Fig 16 The jack-up barge and large Liebherr crane at the end of the quay on 19 July 2015, almost ready for the pre-cast concrete sections to be put in place (photo: CAU).



Fig 17 The new pre-cast concrete sections in place, 20 September 2015 (photo: CAU)



Fig 18 The end of the quay, 20 September 2015 (photo: CAU).

Quay widening

- 40m long quay wall
- Area is dry at low tide



Fig 19 Quay widening scope (Kier).



Fig 20 Breach in the quay wall, showing the wall structure (photo: Rients Jan Veldkamp).



Fig 21 Ramp construction underway (photo: Rients Jan Veldkamp).



Fig 22 Backfilling of the quay widening area (photo: Rients Jan Veldkamp).



Fig 23 Quay widening works viewed from the Garrison, September 2016 (photo: CAU).



Fig 24 Rebuilding the quay wall (photo: Rients Jan Veldkamp).



Fig 25 The old uneven pedestrian walkway (photo: Eric Berry).



Fig 26 The pedestrian walkway being re-laid, May 2015 (photo: CAU).



Fig 27 Groundworks behind the Harbourside building in July 2015 (Photo: CAU)



Fig 28 Inspecting the stockpiled dredged material at Porthloo for archaeological finds, May 2015 (photo: Jacqui Ramsden).



Fig 29 Spent .303 rifle cartridge, May 2015 (photo: CAU).



Fig 30 Artefacts dredged up during the quay extension works (photo: CAU).



Fig 31 Nineteenth century ink bottle dredged up during the quay extension works (photo: Jacqui Ramsden)

9 Conclusions

The quay is a Listed Building and therefore by definition a historic structure that is of national importance. The historic building and archaeological monitoring were required by the archaeological condition attached to approval of the planning application for the St Mary's Harbour Works to mitigate against potential impacts identified by the planning application:

1. A low but potentially significant potential for the works to affect any submerged peat deposits present — no submerged peat deposits were affected by the current work.
2. The concealment of any evidence of stone working and / or loss of any buried archaeological evidence on Rat Island — no evidence of stone working or any other buried archaeological evidence was uncovered on Rat island by the current works.
3. Disturbance or loss of the remains of the Sunderland Flying Boat engine — the exact location of the Sunderland Flying Boat engine remains unclear but it was not disturbed by the current work.
4. Potential disturbance of any as yet unrecorded but postulated wrecks — no unrecorded wreck sites were disturbed by the current works.
5. The loss of elements of the built fabric of the Listed quay including the parapet wall to be demolished and the resurfacing works — the parapet wall was broken through for the quay widening but the demolition works were monitored and a photographic record made of the process. The re-construction of the wall made use of the existing granite blocks. The original surface of the quay had been removed and replaced, and the core below disturbed, during the 1993/1994 works. The current re-surfacing works did not damage any of the original fabric of the quay.

10 References

10.1 Primary sources

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

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10.2 Publications

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Troutbeck, J, nd [c 1794]. *A survey of the ancient and present state of the Scilly Islands*, Sherborne

10.3 Websites

<http://www.heritagegateway.org.uk/gateway/> Online database of Sites and Monuments Records, and Listed Buildings

11 Project archive

The CAU project number is **146425**

The project's digital and photographic is maintained by Cornwall Archaeological Unit, Cornwall Council, Fal Building, County Hall, Treyew Road, Truro, TR1 3AY. The documentary archive is deposited at the Isles of Scilly Museum, Church Street, St Mary's, TR21 0JT.

English Heritage/ADS OASIS online reference: cornwall2-245074

Appendix 1: Planning brief

BRIEF FOR HISTORIC BUILDING RECORDING AND ARCHAEOLOGICAL INVESTIGATION AT THE NEW QUAY, ST MARYS ISLES OF SCILLY

Date: 03/06/2014

Address: The New Quay, St Mary's, Isles of Scilly

Application: P/12/096/LBC

HBSMR:

Applicant: Duchy of Cornwall

Historic Environment Planning Advice Officer: , Dan Ratcliffe, Cornwall Council, Historic Environment Service, Fal Building, Old County Hall, Truro TR1 3AY. tel. 01726 223463 email dratcliffe@cornwall.gov.uk

Local Planning Authority: Council of the Isles of Scilly, Wesleyan Chapel, Hugh Town, St Marys, Isles of Scilly

This brief is only valid for six months. After this period the Historic Environment Planning Advice Officer (HEPAO) should be contacted. Any written scheme of investigation (WSI) resulting from this brief shall only be considered for the same period. The contractor is strongly advised to visit the site before completing their WSI as there may be implications for accurately costing the project.

Contractors Written Scheme of Investigation (WSI)

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

1 Introduction

This brief has been written by the HEPAO and sets out the minimum requirements for archaeological recording at the above site to discharge condition 6 of the above application which requires the submission of a written scheme of investigation for a programme of archaeological works. The scope of these mitigation works was set out in the Archaeological and Cultural Heritage Statement prepared by AECOM and supporting the application for LBC. A Level 2/3 record of the quay should be made in advance of works and an archaeological watching brief held on any construction activities likely to disturb archaeologically significant remains.

2 Site Location and Description

The 'New Quay' at St Mary's Harbour, is a Grade II Listed quay and breakwater built from shaped granite blockwork.

3 Planning Background

Planning application P/12/096/LBC was for "*proposed demolitions, alterations and extensions to existing buildings to provide enhanced passenger and freight facilities. Extension of main pier towards North East, widening of quay wall to South West to improve access to freight yard.*" This application has been approved subject to a number of conditions. Condition 6 states:

- C 6 A) No demolition or works shall commence until a programme of archaeological work, including an archaeological diving inspection, in accordance with a Written Scheme of Investigation has been submitted to and approved in writing by the Local Planning Authority. The scheme shall include an assessment of significance and research questions; and:

1. The programme and methodology of site investigation and recording
2. The programme for post investigation assessment
3. Provision to be made for analysis of the site investigation and recording
4. Provision to be made for publication and dissemination of the analysis and records of the site investigation
5. Provision to be made for archive deposition of the analysis and records of the site investigation
6. Provision to be made for English Heritage Level 2-3 record of the Quay and its environs and archive standard scaled photographic recording of the Quay prior to any works commencing on site
7. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.

B) No demolition/works shall take place other than in accordance with the Written Scheme of Investigation approved under condition (A).

C) The development resulting from the works shall not be occupied until the site investigation and post investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition (A) and the provisions made for analysis, publication and dissemination of results and archive deposition has been secured.

Reason: The site comprises an area of known archaeological interest where it is the Local Planning Authority's policy to provide for the examination of archaeological remains and to ensure that there is an accurate recording of the Quay prior to the proposed alterations due to its historical importance.

The applicant, their agents and any subcontractors should note that where there are other conditions requiring satisfaction in advance of the commencement of works on site; it is the responsibility of the applicant to liaise with the planning officer concerned to ensure that the timetabling of these works is managed.

4 Historic Building/Structure Background

The Listing description includes,

"Quay and breakwater. Begun by Francis Godolphin soon after 1601, rebuilt 1740 and 1748; new pier extending north to Rat Island built 1835-8 for Augustus Smith, Lord Proprietor of the Islands; lengthened 1889 for the flower trade. Granite rubble to earlier arm into harbour partly in vertically-coursed dry stonewall technique, and shaped granite blockwork to later arms. Breakwater has canted wall on sea side. Two granite piers at south entrance and cast-iron upturned cannon reused as bollards. The construction of a pier for the new harbour, St. Mary's Port, was associated with the fortification of the Hugh begun by Godolphin which included Star Castle and the Garrison walls"

5 Archaeological Background

No specific formal archaeological desk based assessment was submitted in support of the application although the AECOM Environmental Statement Addendum supporting the application noted the following relevant evidence,

- This quay was extended out to Rat Island in the 1830s, extended again in the late 19th century, and further widened and extended in 1994.
- Before the construction of the pier, Rat Island had housed a blockhouse and a limekiln, while sections of the island are reported to have been quarried to produce stone for the Bishop Rock lighthouse which was started in 1858 and heightened in 1882.
- A Second World War pillbox was constructed on Rat Island, while the remains of an engine from a Sunderland flying boat have also been recorded to the west of north west of the pier, although this does not lie in its original position as it was moved to its present location to stop it being an underwater hazard/obstruction. This latter site was found to be in area of anomalies identified during geophysical survey (Wessex Archaeology 2004):
- Numerous onion bottle pontiffs have been recovered from the bay and it has been suggested that these are from a wreck that has not been identified thus far;
- A quern stone and other items have been recovered from the area around Rat Island;
- An iron chain and anchor from the Kitty O'Flanagan, which was wrecked on the island in 1938, is still in the area and may indicate where the wreck lies;
- Pottery has been recovered from the area of the current pier which may denote an earlier submerged site.
- Recent work has involved removal of the upper surface of the pier and the core of the pier was found to contain guns and tree stumps with the sea visible in the bottom.

5 Requirement for Work

Impacts identified by the planning application include

- a low but potentially significant potential for the works to affect any submerged peat deposits present.
- The concealment of any evidence of stone working and / or loss of any buried archaeological evidence on Rat Island
- Disturbance or loss of the remains of the Sunderland Flying Boat engine
- Potential disturbance of any as yet unrecorded but postulated wrecks
- The loss of elements of the built fabric of the listed quay including the parapet wall to be demolished and the resurfacing works.

6.1 Building Recording

The present proposals will culminate in the potential destruction of material remains of the quay It is therefore important that the site is recorded to English Heritage Level 2/3; and that the results are made available to interested parties. In this particular instance the recorder needs to consider:

- Site layout and organisation
- Character
- Function
- Materials, method of construction
- Fenestration
- Internal arrangements
- Original fixtures and fittings
- Subsequent fixtures and fittings
- Evidence of use and status
- Date/period of initial build and subsequent alterations

6.2 Archaeological Recording

Ground works associated with the development may disturb buried or submerged archaeological remains. It is therefore important that a suitably qualified archaeologist(s) is/are present during these works in order to identify and record any features of interest.

The site specific aims are to:

- Undertake monitoring of any geotechnical core sampling of the site in order to assess the potential for significant paleoenvironmental remains and if they are present to take and process samples as appropriate
- Establish the presence/absence of archaeological remains
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered
- To establish the nature of the activity on the site
- To identify and recover any artefacts relating to the occupation or use of the site
- To provide further information on the archaeology of St Mary's Harbour from any archaeological remains encountered
- Recover any material from the Sunderland Flying Boat which may be at risk from the development

7 General Methodology

- 7.1 All stages of the investigation shall be supported by a written scheme of investigation (WSI).
- 7.2 The archaeological contractor is expected to follow the code of the Institute for Archaeologists (IfA).
- 7.3 Details including the name, qualifications and experience of the site director and all other personnel (including specialist staff) shall be included within the WSI.
- 7.4 All of the latest Health and Safety guidelines shall be followed on site.
- 7.5 The IfA's Standards and Guidance should be used for additional guidance in the production of the WSI, the content of the report and the general execution of the project.

- 7.6 Terminology will be consistent with the English Heritage Thesaurus.

8 Building Recording Methodology

- 8.1 Prior to the commencement of on site works the historic building contractor should familiarise themselves with the site by examining the information held by the Cornwall and Scilly Historic Environment Record (HER), the Cornwall records Office at Truro and the Cornwall Centre at Redruth, where appropriate.
- 8.2 Details of how all buildings and structures are surveyed and recorded shall be provided. The site plan will be tied to the national grid.
- 8.3 The photographic record shall be a comprehensive record to archive standard of the existing buildings and structures. This should include both external and internal coverage with black and white prints and negatives. Colour photography may be utilised for general shots and where it is appropriate for detail shots (negatives and where appropriate CD shall be included in the archive). For both general and specific photographs, a photographic scale shall be included. The photographic record shall be accompanied by a photographic register detailing as a minimum, feature number, location and direction of shot.

9 Archaeological Recording Methodology

- 9.1 Prior to the commencement of on site works the archaeological contractor should familiarise themselves with the site by examining the information held by the Cornwall and Scilly Historic Environment record (HER), the Cornwall Records Office at Truro and the Cornwall Centre at Redruth, where appropriate. Prior assessment of the site should be sufficient to provide advance warning of and contingency planning for the discovery of archaeological remains likely to be encountered.
- 9.2 An archaeologist shall monitor any engineering works associated with the development with a potential to impact archaeologically significant deposits, unless circumstances dictate a different approach. For the works affecting Rat Island this may include observation of works impacting current ground levels – for the area of extension to the east of the quay it is anticipated that removal of the remains of the flying boat engine should take place in advance of engineering works, whilst an effective approach to impacts from construction itself should be developed in partnership between the construction team and archaeological contractors. Contingency should be made for the recording of any artefacts or archaeologically significant evidence exposed in the course of works impacting the core of the quay.
- 9.3 Any surviving remains which will be disturbed or destroyed by the development shall be archaeologically excavated and recorded.
- 9.4 Details of how all archaeological contexts and artefacts will be excavated, surveyed, recovered and recorded shall be provided. The site will be tied into the national grid.
- 9.5 Details of the site planning policy shall be given in the WSI. The normal preferred policy for the scale of archaeological site plans is 1:20 and sections

1:10, unless circumstances indicate that other scales would be more appropriate.

- 9.6 The photographic record shall consist of prints in both black and white and colour together with the negatives. Digital photography may be used for report illustration. For both general and specific photographs, a photographic scale shall be included. In the case of detailed photographs it may be appropriate to include a north arrow. The photographic record shall be accompanied by a photographic register detailing as a minimum, feature number, location and direction of shot.
- 9.7 If significant archaeological deposits are exposed, all works must cease and a meeting convened with the client and the HEPAO to discuss the most appropriate way forwards.

10 Finds

- 10.1 All finds, where appropriate, will be retained from each archaeological context excavated.
- 10.2 All finds, where appropriate, shall be washed.
- 10.3 All pottery, and other finds, where appropriate, shall be marked with the site code and context number.
- 10.4 The WSI shall include an agreed list of specialist consultants, who may be required to conserve and/or report on finds, and advise or report on other aspects of the work including environmental sampling.
- 10.5 The requirements for conservation and storage shall be agreed with the appropriate museum prior to the start of work, and confirmed in writing to the HEPAO.
- 10.6 Finds work should be to accepted professional standards and adhere to the Institute for Archaeologists *Guidelines for Finds Work*.
- 10.7 Environmental sampling should be guided by *Environmental Archaeology* (English Heritage Centre for Archaeological Guidelines, 2001/02).
- 10.8 Further English Heritage guidance that may be helpful includes *Geoarchaeology* (2004) and *Archaeometallurgy* (2001).
- 10.9 The English Heritage Advisor for Archaeological Science will be able to provide archaeological science advice if required (Vanessa Straker 0117 975 0689).

11 Human Remains

- 11.1 Any human remains which are encountered must initially be left in situ and reported to the HEPAO and the appropriate authorities (the Coroner), where appropriate. If removal is necessary this must comply with the relevant Government regulations. If burials are encountered their legal status must be ascertained and recording and/or removal must comply with the legal guidelines.

- 11.2 If human remains are not to be removed their physical security must be ensured, preferably by back filling as soon as possible after recording.
- 11.3 If human remains are to be removed this must be done with due reverence and in accordance to current best practice and legal requirements. The site must be adequately screened from public view. Once excavated, human remains must not be exposed to public view.

12 Results Building Recording

- 12.1 The full report including any specialist assessments shall be submitted within a length of time (but not exceeding six months) to be agreed between the applicant and the archaeological contractor, Cornwall County Council Historic Environment Service and the Royal Cornwall Museum. A further digital copy shall be supplied on CD-ROM preferably in 'Adobe Acrobat' PDF format.
- 12.2 The archaeological contractor will undertake the English Heritage/ads online access to the index of archaeological investigations (OASIS).
- 12.3 This report will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.
- 12.4 The report must contain:
 - A concise non-technical summary of the project results.
 - The aims and methods adopted in the course of the investigation.
 - A discussion of the archaeological findings in terms of both the site specific aims and the desk based research.
 - A location map, a drawing showing those areas examined as part of the recording. All plans shall be tied to the national grid.
 - Any specialist reports and assessments.
 - A summary of the archive contents and date of deposition.
 - A copy of the brief and the approved WSI will be included as an appendix.
- 12.5 A contingency shall be made within the costs for full publication in an appropriate journal. The HEPAO will notify the contractor of such a need within four weeks of receipt of the report.

13 Results Archaeological Recording

- 13.1 The full report including all specialist assessments of artefact assemblages shall be submitted within a length of time (but not exceeding six months) to be agreed between the applicant and the archaeological contractor, Cornwall County Council Historic Environment Service and the appropriate museum. A further digital copy shall be supplied on CD-ROM preferably in 'Adobe Acrobat' PDF format.
- 13.2 This report will be held by the Cornwall and Scilly Historic Environment Record and made available for public consultation.
- 13.3 The report must contain:

- A concise non-technical summary of the project results.
- The aims and methods adopted in the course of the investigation.
- A discussion of the archaeological findings in terms of both the site specific aims and the desk based research.
- A location map, a drawing showing those areas examined as part of the archaeological recording, and copies of any archaeological plans and sections. All plans shall be tied to the national grid.
- All specialist reports and assessments.
- A summary of the archive contents and date of deposition.
- A context register with brief descriptions shall be included as an appendix.
- A copy of the brief and the approved WSI will be included as an appendix.

- 13.4 A contingency shall be made within the costs for full publication in an appropriate journal. The HEPAO will notify the contractor of such a need within four weeks of the receipt of the report.

14 Archive Deposition

- 14.1 An ordered and integrated site archive will be prepared in accordance with: *Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006* upon completion of the project. The requirements for archive storage shall be agreed with the Isles of Scilly Museum. Please check with the museum for deposit requirements in advance of works.
- 14.3 The archive including a copy of the written report shall be deposited with the Isles of Scilly Museum within two months of the completion of the full report and confirmed in writing with the HEPAO.
- 14.4 The archaeological contractor will undertake the English Heritage/ADS online access to the index of archaeological investigations (OASIS).
- 14.5 This report will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.
- 14.6 A copy of the report will be supplied to the National Monuments Record (NMR) in Swindon.
- 14.7 A summary of the contents of the archive shall be supplied to the HEPAO.
- 14.8 Only on completion of 14.1 to 14.7 (inclusive) will there be a recommendation for the discharge of any archaeological recording condition.

15 Monitoring

- 15.1 The HEPAO will monitor the work and should be kept regularly informed of progress.
- 15.2 Notification of the start of work shall be given preferably in writing to the HEPAO at least one week in advance of its commencement.

- 15.3 Any variations to the WSI shall be agreed with the HEPAO, preferably in writing, prior to them being carried out.

Appendix 2: Written Scheme of Investigation

Cornwall Archaeological Unit Cornwall Council



St Mary's harbour Works, Isles of Scilly: Written Scheme of Investigation for historic building recording and archaeological investigation

Client: Kier Infrastructure
Client contact: Caroline Leatherdale
Client tel: 07581 493727
Client email: caroline.leatherdale@gmail.com

1 Project background

The 'New Quay' at St Mary's Harbour, Isles of Scilly, is a Grade II Listed quay and breakwater built from shaped granite blockwork.

Planning application P/12/096/LBC was for '*proposed demolitions, alterations and extensions to existing buildings to provide enhanced passenger and freight facilities. Extension of main pier towards North East, widening of quay wall to South West to improve access to freight yard.*' This application has been approved subject to a number of conditions. Condition 6 states:

A) No demolition or development shall commence until a programme of archaeological work including a Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of significance and research questions; and:

1. The programme and methodology of site investigation and recording,
2. The programme for post investigation assessment
3. Provision to be made for analysis of the site investigation and recording
4. Provision to be made for publication and dissemination of the analysis and records of the site investigation,
5. Provision to be made for archive deposition of the analysis and records of the site investigation,
6. Provision to be made for English Heritage Level 2/3 record of the Quay and its environs and archive standard scaled photographic recording of the quay prior to any works commencing on site,
7. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.

B) No demolition or development shall take place other than in accordance with the Written Scheme of Investigation approved under condition (A).

C) The development shall not be occupied until the site investigation and post-investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under condition (A) and the provision made for analysis, publication and dissemination of results and archive deposition has been secured.

St Mary's Harbour Works, J05, WSI, Rev00, CJ, 19/09/2014

Reason: The site comprises an area of known archaeological interest where it is the Local Planning Authorities policy to provide for the examination of archaeological remains and to ensure that there is an accurate recording of the Quay prior to the proposed alterations due to its historical importance.

This Written Scheme of Investigation (WSI) for historic building recording and archaeological investigation during the St Mary's Harbour works has been prepared by the Cornwall Archaeological Unit (CAU) for Kier Infrastructure at the request of Caroline Leatherdale, Environmental Manager. It is based upon a Brief written by the Historic Environment Planning Advice Officer, Cornwall Council (HEPAO) which sets out the minimum requirements for archaeological recording to discharge Condition 6 of the planning consent (Ratcliffe 2014).

2 Historic building/structure background

The Listing description includes,

"Quay and breakwater. Begun by Francis Godolphin soon after 1601, rebuilt 1740 and 1748; new pier extending north to Rat Island built 1835-8 for Augustus Smith, Lord Proprietor of the Islands; lengthened 1889 for the flower trade. Granite rubble to earlier arm into harbour partly in vertically-coursed dry stonewall technique, and shaped granite blockwork to later arms. Breakwater has canted wall on sea side. Two granite piers at south entrance and cast-iron upturned cannon reused as bollards. The construction of a pier for the new harbour, St. Mary's Port, was associated with the fortification of the Hugh begun by Godolphin which included Star Castle and the Garrison walls"

3 Archaeological background

No specific formal archaeological desk based assessment was submitted in support of the application although the AECOM Environmental Statement Addendum supporting the application noted the following relevant evidence,

- This quay was extended out to Rat Island in the 1830s, extended again in the late 19th century, and further widened and extended in 1994.
- Before the construction of the pier, Rat Island had housed a blockhouse and a limekiln, while sections of the island are reported to have been quarried to produce stone for the Bishop Rock lighthouse which was started in 1858 and heightened in 1882.
- A Second World War pillbox was constructed on Rat Island, while the remains of an engine from a Sunderland flying boat have also been recorded to the west of north west of the pier, although this does not lie in its original position as it was moved to its present location to stop it being an underwater hazard/obstruction. This latter site was found to be in area of anomalies identified during geophysical survey (Wessex Archaeology 2004):
- Numerous onion bottle pontills have been recovered from the bay and it has been suggested that these are from a wreck that has not been identified thus far;
- A quern stone and other items have been recovered from the area around Rat Island;
- An iron chain and anchor from the Kitty O'Flanagan, which was wrecked on the island in 1938, is still in the area and may indicate where the wreck lies;
- Pottery has been recovered from the area of the current pier which may denote an earlier submerged site.

St Mary's Harbour Works, IOS, WSI, Rev00, CJ, 19/09/2014

- Recent work has involved removal of the upper surface of the pier and the core of the pier was found to contain guns and tree stumps with the sea visible in the bottom.

4 Aims and objectives

4.1 Historic building recording

The present proposals will culminate in the potential destruction of material remains of the quay. It is therefore important that the site is recorded to English Heritage Level 2/3; and that the results are made available to interested parties. In this particular instance the recorder needs to consider:

- Site layout and organisation
- Character
- Function
- Materials, method of construction
- Fenestration
- Internal arrangements
- Original fixtures and fittings
- Subsequent fixtures and fittings
- Evidence of use and status
- Date/period of initial build and subsequent alterations

4.2 Archaeological recording

The site specific aims are to:

- Undertake monitoring of any geotechnical core sampling of the site in order to assess the potential for significant paleoenvironmental remains and if they are present to take and process samples as appropriate
- Establish the presence/absence of archaeological remains
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered
- To establish the nature of the activity on the site
- To identify and recover any artefacts relating to the occupation or use of the site
- To provide further information on the archaeology of St Mary's Harbour from any archaeological remains encountered
- Recover any material from the Sunderland Flying Boat which may be at risk from the development

5 Working methods

All recording work will be undertaken according to the Institute for Archaeologists *Standards and Guidance for Archaeological Investigation and Recording*. Staff will follow the IfA *Code of Conduct* and *Code of Approved Practice for the Regulation of Contractual Arrangements in Archaeology*. The Institute for Archaeologists is the professional body for archaeologists working in the UK.

5.1 Building recording

Prior to the commencement of on-site works the historic building specialist will familiarise themselves with the site by examining the information held by the Cornwall and Scilly Historic Environment Record (HER), the Cornwall Records Office

St Mary's Harbour Works, J05, WSI, Rev00, CJ, 19/09/2014

at Truro and the Cornwall Centre at Redruth, and other published sources as appropriate

The building recording will be undertaken to be equivalent to an English Heritage Level 2 survey (English Heritage 2006a). It will comprise a walk-over, photographic survey and the production of brief building descriptions.

5.1.1 Fieldwork: photographic recording

The principal recording medium will be a photographic survey. This will include:

1. Black and white photographs using a 35mm camera on fine grain archive quality film.
2. Supporting colour photographs taken with a digital camera (5MP or higher), to be used to illustrate the report.

The photo record will comprise:

- general views
- principal exterior and interior elevations (where accessible)
- examples of structural and architectural detail.

Methodology for the archive standard photography is set out as follows:

- Photographs of details will be taken with lenses of appropriate focal length.
- For land-based photography a tripod will be used to take advantage of natural light and slower exposures.
- Where necessary, overlapping photographs of the sea walls will be taken from a boat, during low spring tide conditions.
- Difficulties of back-lighting will be dealt with where necessary by balancing the lighting by the use of flash.
- A metric scale will be included in all views, except where health and safety considerations make this impractical.

5.1.2 Fieldwork: description

Brief analysis of the building fabric will be undertaken on site (recorded as notes and annotations to existing architect's measured drawings).

5.2 Archaeological recording

Prior to the commencement of on-site works the project archaeologist will familiarise themselves with the site by examining the information held by the Cornwall and Scilly Historic Environment record (HER), the Cornwall Records Office at Truro, the Cornwall Centre at Redruth, and published sources as appropriate. Prior assessment of the site should be sufficient to provide advance warning of and contingency planning for the discovery of archaeological remains likely to be encountered.

The project archaeologist will monitor any engineering works associated with the development with a potential to impact archaeologically significant deposits, unless circumstances dictate a different approach. For the works affecting Rat Island this may include observation of works impacting current ground levels and an effective approach to impacts from construction itself will be developed in partnership between the construction team and CAU—CAU will prepare a protocol for reporting finds of archaeological interest should be adopted, closely following the British Marine Aggregate Producers Association and English Heritage Protocol (Wessex Archaeology 2005).

Contingency is made in the accompanying estimate for the recording of any artefacts or archaeologically significant evidence exposed in the course of works impacting the core of the quay.

St Mary's Harbour Works, IDS, WSI, Rev00, C1, 19/09/2014

Any surviving remains which will be disturbed or destroyed by the development shall be archaeologically excavated and recorded.

If significant archaeological deposits are exposed, all works will cease and a meeting convened with the client and the HEPAO to discuss the most appropriate way forwards.

5.2.1 Recording

- A location plan will be made, plotting the areas of ground works onto the Ordnance Survey Mastermap at 1:200.
- The heights of all features identified will be tied into the Ordnance Datum if appropriate.
- The location of features recorded during the watching brief will be plotted onto a drafting film overlay to the prepared location plan.
- All finds from significant stratified contexts will be accurately located on the location plan at an appropriate scale.
- All archaeological contexts will be described to a standard format linked to a continuous numbering sequence. All contexts recorded will be recorded via the medium of HES pro forma context recording sheets.
- Registers of drawings, photographs, finds and contexts, samples will be maintained during the fieldwork.
- The excavated spoil will be carefully inspected for finds.

5.2.2 Site planning policy

- Site drawings (plans, sections, locations of finds) will be made by pencil (4H) on drafting film; all plans will be linked to the prepared location map and to the national grid; all drawings will include standard information: site details, personnel, date, scale and north-point.
- Site plans will be drawn at 1:20 and sections at 1:10, unless circumstances indicate that other scales would be more appropriate.
- Site drawings (plans and sections) will be digitised and converted into AutoCAD drawings.

5.2.3 Photographic record

- The photographic record will consist of prints in both black and white and colour together with the negatives. Digital photography will be used for report illustration.
- For both general and specific photographs, a photographic scale will be included.
- In the case of detailed photographs a north arrow will be included if appropriate.
- The photographic record will be accompanied by a photographic register detailing as a minimum, feature number, location and direction of shot.

5.2.4 Finds

- All finds will be retained from each archaeological context excavated.
- All retained finds, where appropriate, will be washed.
- All pottery and other finds where appropriate, will be marked with the site code and context number.

St Mary's Harbour Works, IOS, WSI, Rev00, CL, 19/09/2014

- This WSI includes an agreed list of specialist consultants, who might be required to conserve and/or report on finds, and advise or report on other aspects of the project including environmental sampling.
- The requirements for conservation and storage will be agreed with the appropriate museum prior to the start of work, and confirmed in writing to the HEPAO.
- Finds work will be to accepted professional standards and adhere to the Institute for Archaeologists' *Guidelines* (IfA 2001b).

5.2.5 Sampling

- The English Heritage Advisor for Archaeological Science will be consulted for advice if required (Vanessa Straker 0117 975 0689).
- Environmental sampling will be guided by *Environmental Archaeology* (English Heritage 2011).
- Other English Heritage guidance will be consulted as appropriate including *Geoarchaeology* (2004) and *Archaeometallurgy* (2001).
- The archaeologist undertaking the watching brief will assess the potential for environmental sampling.
- If suitable deposits are identified the following types of sample will be taken as appropriate:
 - Bulk sampling
 - Monolith sampling
 - Macro & Micro Flora Analysis (including pollen analysis)
 - Macro & Micro Fauna Analysis
 - Radiocarbon dating for artefact analysis

5.2.6 Human remains

Any human remains which are encountered will initially be left *in situ* and reported to the HEPAO and the appropriate authorities. If removal is necessary this will comply with the relevant Government regulations. If burials are encountered their legal status will be ascertained and recording and/or removal will comply with the legal guidelines.

If human remains are not to be removed their physical security will be ensured, if possible by back filling as soon as possible after recording.

If human remains are to be removed this will be done with due reverence and in accordance to current best practice and legal requirements. The site will be adequately screened from public view. Once excavated human remains will not be exposed to public view.

5.3 Creation of site archive

To include:

- Archiving of black and white photographs to HER standards
- Digital colour photographs (stored according to HER guidelines and copies of images made available to the client)
- A detailed site/building description
- Preparation of finished drawings

5.4 Results of the building recording

The full report including any specialist assessments will be submitted within a length of time (but not exceeding six months) to be agreed between the applicant

St Mary's Harbour Works, IOS, WSI, Rev00, CI, 19/09/2014

and CAU, Cornwall County Council Historic Environment Service and the Isles of Scilly Museum. A further digital copy shall be supplied on CD-ROM preferably in 'Adobe Acrobat' PDF format.

The report will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.

The report will contain:

- A concise non-technical summary of the project results.
- The aims and methods adopted in the course of the investigation.
- A discussion of the archaeological findings in terms of both the site specific aims and the desk based research.
- A location map, a drawing showing those areas examined as part of the recording. All plans shall be tied to the national grid.
- Any specialist reports and assessments.
- A summary of the archive contents and date of deposition.
- A copy of the brief and the approved WSI will be included as an appendix.

A contingency has been made in the accompanying estimate for costs for full publication in an appropriate journal. The HEPAO will notify CAU of such a need within four weeks of receipt of the report.

5.5 Results of the archaeological recording

The full report including any specialist assessments will be submitted within a length of time (but not exceeding six months) to be agreed between the applicant and CAU, Cornwall County Council Historic Environment Service and the Isles of Scilly Museum. A further digital copy shall be supplied on CD-ROM preferably in 'Adobe Acrobat' PDF format.

The report will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.

The report will contain:

- A concise non-technical summary of the project results.
- The aims and methods adopted in the course of the investigation.
- A discussion of the archaeological findings in terms of both the site specific aims and the desk based research.
- A location map, a drawing showing those areas examined as part of the recording. All plans shall be tied to the national grid.
- Any specialist reports and assessments.
- A summary of the archive contents and date of deposition.
- A copy of the brief and the approved WSI will be included as an appendix.

A contingency has been made in the accompanying estimate for costs for full publication in an appropriate journal. The HEPAO will notify CAU of such a need within four weeks of receipt of the report.

Note: Subject to agreement with the HEPAO, and depending on the results, CAU will combine the results of the building recording and the archaeological recording in single report

5.6 Archive deposition

An ordered and integrated site archive will be prepared in accordance with: *Management of Research Projects in the Historic Environment (MoRPHE)* (English

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Heritage 2006b) upon completion of the project. The requirements for archive storage shall be agreed with the Isles of Scilly Museum. CAU will check with the museum for deposit requirements in advance of works.

The archive including a copy of the written report(s) shall be deposited with the Isles of Scilly Museum within two months of the completion of the full report and confirmed in writing with the HEPAO.

CAU will undertake the English Heritage/ADS online access to the index of archaeological investigations (OASIS).

The report(s) will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.

A copy of the report(s) will be supplied to the National Record of the Historic Environment (NRHE) in Swindon.

A summary of the contents of the archive shall be supplied to the HEPAO.

On completion of these archive tasks there be a recommendation for the discharge of any archaeological recording condition.

6 Timetable

The historic building recording will be carried in late September or early October 2014. The timetable for the works is yet to be confirmed and CAU would prefer at least three weeks' notice before commencement of work, in order to allocate field staff and arrange other logistics.

Notification of the start of the work will be given, preferably in writing, to the HEPAO at least one week in advance of its commencement.

The archive report will be completed within 3 months of the end of the fieldwork. The deposition of the archive will be completed within 3 months of the completion of the archive report.

7 Monitoring and Signing Off Condition

Monitoring of the project will be carried out by HEPAO. Where the HEPAO is satisfied with the archive report and the deposition of the archive written discharge of the planning condition will be expected.

Monitoring points during the study will include:

- Approval of the WSI
- Completion of the building recording
- Completion of the archaeological recording
- Completion of archive report
- Deposition of the archive

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8 Cornwall Archaeological Unit

Cornwall Archaeological Unit is part of Cornwall Council. CAU employs some 20 project staff with a broad range of expertise, undertaking around 120 projects each year.

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

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

9 Standards



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

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

10 Terms and conditions

10.1 Contract

CAU is part of Cornwall Council. If accepted, the contract for this work will be between the client and Cornwall Council.

The views and recommendations expressed will be those of CAU and will be presented in good faith on the basis of professional judgement and on information currently available.

10.2 Project staff

10.2.1 Cornwall Archaeological Unit

The project manager will be **Charlie Johns, BA, MIFA** who will also carry out the archaeological recording. Management tasks will include

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- Discussing and agreeing the detailed objectives and programme of each stage of the project with the client and the field officers, including arrangements for health and safety.
- Monitoring progress and results for each stage.
- Editing the project report.
- Liaising with the client regarding the budget and related issues.

As a Senior Archaeologist with CAU (1991–present) Charlie has special responsibility for projects in the Isles of Scilly where he has worked on numerous projects including the Bryher Iron Age sword and mirror cist burial; the popular archaeological field guide 'Scilly's Archaeological Heritage'; the Tresco Playing Field watching brief for the Tresco Estate; the Isles of Scilly Rapid Coastal Zone Assessment Survey for EH; the off-island quays watching brief for the Duchy of Cornwall; the new Five Islands School Base evaluation for the Council of the Isles of Scilly; St Agnes Affordable Housing site for the Cornwall Rural Housing Association; St Mary's Garrison Conservation Plan and the Research Framework for the Historic Environment of Scilly (both for EH) and the Porthcressa Regeneration Project for Kler Construction. Recent/current projects include the 'Neolithic Stepping Stones' project excavation at Old Quay, St Martin's, excavation of a cist burial at Churchtown Farm, St Martin's, the Ennor Castle Conservation Management Plan, St Mary's Airport watching brief, Scilly Subsea Cable Superfast Broadband Project and the EH-funded Lyonesse Project, a study of the evolution of the coastal and marine environment of Scilly – a monograph publication is in preparation.

Since 2005 he has co-directed the 'Islands in a Common Sea' research project in Scilly with Dr Jacqui Mulville of Cardiff University. He is currently an Honorary Research Fellow in Cardiff University's School of History and Archaeology and representative for Scilly on the CBA SW Committee.

The building recording will be carried out by **Nigel Thomas, BA, MIFA**. Nigel is Senior Archaeologist responsible for management and undertaking of projects relating to historic building recording and surveys of historic landscapes. Past work has included recording and structural analysis at Launceston and Restormel Castles, medieval chapels at Rame, Bodmin and Hall (Bodinnick), as well as landscape surveys at Lanhydrock park and Godolphin gardens. Nigel was project manager for historic building analyses at Tintagel Old Post Office, Cotehele House, St Michael's Mount summit complex and Trerice for the National Trust. He has recorded numerous industrial structures including Harveys Foundry, Loggans Mill (Hayle), Town Mills at St Columb Major, and china-clay area features including the waterwheel at Virginia OC Works, Greensplat engine house and Carrancarrow chapel and was project team leader for the Lostwithiel Town Characterisation Study. In 2013 he carried out historic building recording of Penzance harbour.

Nigel is a Member of the IfA Buildings Group and Graphic Archaeology Group and experienced user of AutoCAD and is responsible CAU's survey methodology.

Nigel will be assisted by **Eric Berry**. Eric is a freelance Historic Buildings Consultant, with extensive experience of Listing reviews for English Heritage and has surveyed and photographed numerous early buildings in Cornwall and beyond. Eric formerly worked as a Conservation Officer for Carrick District Council and has served on the committee of the Cornish Buildings Group for many years. In 2102 Eric compiled the resource assessment of the built heritage of Scilly for the Scilly Historic Environment Research Framework. He has carried out building surveys at Borough Farm (2012) and Ennor Castle (2014), St Mary's with Nigel.

10.2.25 Specialists

John Allan MPhil – Medieval/post-medieval pottery specialist: John works for the Exeter Archaeological Field Unit. He is the leading authority on medieval and

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post-medieval pottery in south-west England and author of many publications. He will carry out the pottery assessment and analysis in the event of medieval or post-medieval pottery being recovered.

Henrietta Quinnell BA, MIFA, FSA – Prehistoric, Roman, post-Roman pottery: Henrietta is a freelance pottery specialist and the leading authority on prehistoric pottery in the south-west. She will carry out the pottery assessment and analysis in the event of prehistoric pottery being recovered.

Julie Jones BA – Archaeobotanist: An experienced freelance archaeobotanical specialist based in Bristol, Julie has carried out palaeoenvironmental assessments and analyses for numerous HES projects.

Dana Challinor MA, MSc – Freelance Charcoal Specialist: Dana's main area of expertise is charcoal analysis and wood species identification, but she also has experience with charred plant remains. For her Masters degree she specialised in Archaeobotany and received a distinction for her dissertation on charcoal in Bronze Age cremation burials. She has produced numerous assessment and evaluation reports, as well as reports for publication in journal and monograph formats and was formerly Head of the Environmental Department at Oxford Archaeology. She will undertake assessment and analysis of any suitable charcoal samples, including identification of samples suitable for radiocarbon dating.

Ralph Fyfe, PhD, Palynologist: Ralph is lecturer in environmental change in the School of Geography at the University of Plymouth. He has carried out numerous archaeological evaluations for a variety of organisations, including English Heritage, County Councils, National Parks and Archaeological Consultancies and will undertake assessment and analysis of pollen samples if required.

Laura Ratcliffe-Conservationist, BSc, Laura graduated In Archeological Conservation from Cardiff University in 2001. Since then she has gained a wide variety of experience both on excavations and in a lab working on a wide variety of archaeological and historical material. She is currently based at the Royal Cornwall Museum where she is the museum's Collections Manager. Laura will carry out the assessment and conservation of pottery and metalwork on a free lance basis if required.

SUERC Radiocarbon Dating Laboratory: Samples for radiocarbon dating will be sent to the Scottish Universities Environmental Research Centre.

10.3 Report distribution

Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres.

A digital copy of the report, illustrations and any other files will be held in the Cornwall HER and also supplied to the client on CD or other suitable media.

10.4 Copyright

Copyright of all material gathered as a result of the project will be reserved to Cornwall Archaeological Unit, Cornwall Council. Existing copyrights of external sources will be acknowledged where required.

Use of the material will be granted to the client.

10.5 Freedom of Information Act

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

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

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10.6 Health and safety statement

CAU follows Cornwall Council's *Statement of Safety Policy*.

Prior to carrying out on-site work HE will carry out a Risk Assessment.

10.7 Insurance

CAU is covered by Cornwall Council's Public and Employers Liability Insurance, with a policy value of £50m. The Council also has Professional Negligence Insurance with a policy value of £10m.

11 References

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- English Heritage, 2006b. *Management of Research Projects in the Historic Environment (MoRPHE)*, English Heritage
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- IFA, 2001b. *Standards and Guidance for the collection, documentation, conservation and research of archaeological materials*, IFA
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Charles Johns
Senior Archaeologist
19/09/2014

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