

# **RITEC CULVERT REPAIRS, TENBY, PEMBROKESHIRE: HISTORIC ENVIRONMENT DESK-BASED ASSESSMENT**



Prepared by DAT Archaeological Services  
For: Arup



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**DYFED**  
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# DYFED ARCHAEOLOGICAL TRUST

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## **RITEC CULVERT REPAIRS, TENBY, PEMBROKESHIRE: HISTORIC ENVIRONMENT DESK-BASED ASSESSMENT**

By

**Philip Poucher MCIfA**



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Ymddiriedolaeth Archaeolegol Dyfed Cyf  
Corner House, 6 Stryd Caerfyrddin, Llandeilo, Sir  
Gaerfyrddin SA19 6AE  
Ffon: Ymholiadau Cyffredinol 01558 823121  
Adran Rheoli Treftadaeth 01558 823131  
Ebost: [info@dyfedarchaeology.org.uk](mailto:info@dyfedarchaeology.org.uk)

*Dyfed Archaeological Trust Limited*  
Corner House, 6 Carmarthen Street, Llandeilo,  
Carmarthenshire SA19 6AE  
Tel: General Enquiries 01558 823121  
Heritage Management Section 01558 823131  
Email: [info@dyfedarchaeology.org.uk](mailto:info@dyfedarchaeology.org.uk)

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**RITEC CULVERTREPAIRS, TENBY, PEMBROKESHIRE**

**HISTORIC ENVIRONMENT DESK BASED ASSESSMENT**

**Client**

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**Report Prepared By**

Philip Poucher

**Site-visit Undertaken By**

Philip Poucher

**Illustrated By**

Philip Poucher

**Report Approved By**

Marion Shiner

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## **RITEC CULVERT REPAIRS, TENBY, PEMBROKESHIRE HISTORIC ENVIRONMENT DESK-BASED ASSESSMENT**

### **EXECUTIVE SUMMARY**

*DAT Archaeological Services were commissioned to prepare an Historic Environment Desk-Based Assessment of proposed repair works to the Ritec Culvert, Tenby, Pembrokeshire (SN 13050 00142). The culvert is an historic asset, and several further assets were identified in the vicinity. The archaeological potential of the area was highlighted, but the proposed works outlined in the assessment were considered to have an overall Neutral impact.*

### **CRYNODEB GWEITHREDOL**

*Comisiynwyd Gwasanaethau Archaeolegol YAD i baratoi Asesiad Desg Amgylchedd Hanesyddol o waith atgyweiriad arfaethedig i Gylfat Ritec, Dinbych-y-pysgod, Sir Benfro (SN 13050 00142).*

*Mae'r cylfat yn ased hanesyddol, a nodwyd sawl ased pellach yn y cyffiniau. Amlygwyd potensial archeolegol yr ardal, ond ystyriwyd bod y gwaith arfaethedig amlinellwyd yn yr asesiad yn cael effaith Niwtral yn gyffredinol.*

## **1. INTRODUCTION**

### **1.1 Project Proposals and Commission**

- 1.1.1 DAT Archaeological Services were commissioned by Arup, on behalf of their clients Natural Resources Wales (NRW), to prepare an Historic Environment Desk-Based Assessment on proposed repairs works to the culverted section of the River Ritec, in Tenby, Pembrokeshire (SN 13050 00142).
- 1.1.2 The River Ritec enters a culvert just to the north of the railway line on the west side of Tenby, before eventually discharging into the sea around 600m further to the south. A number of defects have been identified along the culvert, including areas of subsidence, and repair work is required along some sections of the culvert. The adjacent settlement of Tenby is a site of historic and archaeological interest. In order to inform their proposed repair strategies Arup have requested that a desk-based assessment be carried out to determine the impact of the proposed work on the historic environment and what potential mitigation may be required.
- 1.1.3 This Historic Environment Desk-Based Assessment provides an indication of the archaeological potential of the development area and highlights possible issues in relation to the impact of the development on the historic environment.
- 1.1.4 The assessment has been a primarily desk-based study of the site area, identifying any known archaeological or historical sites within the site and its environs, identifying potential setting impacts on designated archaeological assets in the vicinity, identifying any historic landscape areas that may be affected by the proposals and assessing the potential for hitherto unknown archaeological remains to be present within the development area.

### **1.2 Scope of the Project and Methodology**

- 1.2.1 The scope of the assessment follows the Chartered Institute for Archaeologists *Standard and Guidance for Historic Environment Desk-Based Assessment* (CIfA 2014). The standard is defined by CIfA thus:

*Desk-based assessment will determine, as far as is reasonably possible from existing records, the nature, extent and significance of the historic environment within a specified area. Desk-based assessment will be undertaken using appropriate methods and practices which satisfy the stated aims of the project, and which comply with the Code of Conduct and other relevant regulations of CIfA. In a development context desk-based assessment will establish the impact of the proposed development on the significance of the historic environment (or will identify the need for further evaluation to do so), and will enable reasoned proposals and decisions to be made whether to mitigate, offset or accept without further intervention that impact.*

- 1.2.2 A desk-based assessment is defined by CIfA as:

*.....a programme of study of the historic environment within a specified area or site on land, the inter-tidal zone or underwater that addresses agreed research and/or conservation objectives. It consists of an analysis of existing written, graphic, photographic and electronic information in order to identify the likely historic assets, their interests and significance and the character of the study area, including appropriate consideration of the settings of historic assets and, in England, the nature, extent and*



*quality of the known or potential archaeological, historic, architectural and artistic interest. Significance is to be judged in a local, regional, national or international context as appropriate.*

- 1.2.3 The desk-based study of the area identifies known archaeological sites within the site and its environs, and assesses the potential for hitherto unknown remains to be present within the proposed development area. This will help inform future decision making, design solutions and potential mitigation strategies, including the potential for further archaeological works.
- 1.2.4 The report also includes a brief assessment of the impact on the settings of surrounding designated historic assets, including scheduled monuments, listed buildings, historic landscape character areas and undesignated archaeological sites. This utilises the best practice guidance in *Setting of Historic Assets in Wales* (Cadw 2017).
- 1.2.5 The report presents relevant information from a number of sources including:
- Dyfed Archaeological Trust Historic Environment Record;
  - Map regression exercise using earlier cartographic sources;
  - Available and relevant reports on any archaeological work undertaken in the area that affects the site or its setting;
  - Archive records held at the County Archive, the National Library of Wales (NLW) and the Royal Commission on the Ancient and Historic Monuments of Wales (RCAHMS) (where accessible);
  - Aerial photography, satellite imagery and Lidar data;
  - Relevant records held by the developer;
  - Identification of any Scheduled Monuments, Listed Buildings, Registered Parks and Gardens, Registered Historic Landscapes, Historic Landscape Character Areas or Conservation Areas within or in the vicinity of the site area (Cadw, DAT, NRW);
  - Assessment of the archaeological potential of the area;
  - Assessment of the likely impact upon the settings of surrounding features of the historic environment; and
  - Assessment of likely impacts on any identified remains within the development site (or potential remains) and likely requirements, if any, for further stages of archaeological work.
- 1.2.6 A Written Scheme of Investigation (WSI) was produced by DAT Archaeological Services, detailing the methodology used within this assessment. This was approved by Dyfed Archaeological Trust – Development Management (DAT-DM), in their capacity as archaeological advisors to the local authority. An initial search area of 300m from the boundary of a broad development area was used to identify sites recorded on the Historic Environment Record and other sources, and was extended to examine the potential impact on the setting of high status, designated, historic assets in the surrounding landscape.
- 1.2.7 For the purposes of planning policy in Wales, the historic environment is defined as:

*All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of*

*past human activity, whether visible, buried or submerged, and deliberately planted or managed* (Welsh Government 2017).

An historic asset is:

*An identifiable component of the historic environment. It may consist or be a combination of an archaeological site, a historic building or area, historic park and garden or a parcel of historic landscape. Nationally important historic assets will normally be designated (ibid.).*

### 1.3 Abbreviations

- 1.3.1 Sites recorded on the regional Historic Environment Record (HER) are identified by their Primary Reference Number (PRN) and located by their National Grid Reference (NGR). Sites recorded on the National Monument Record (NMR) held by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) are identified by their National Primary Reference Number (NPRN). Scheduled Monument (SM). Listed Buildings (LB). References to sources will be given in brackets throughout the text, with full details listed in the sources section at the rear of the report.

### 1.4 Illustrations

- 1.4.1 Printed map extracts are not necessarily reproduced to their original scale. North is towards the top of the page unless otherwise indicated.

### 1.5 Timeline

- 1.5.1 The following timeline gives date ranges for the various archaeological periods that may be mentioned within this report.

**Table 1:** Archaeological and Historical Timeline for Wales

Period	Approximate date	
Palaeolithic –	c.450,000 – 10,000 BC	Prehistoric
Mesolithic –	c. 10,000 – 4400 BC	
Neolithic –	c.4400 – 2300 BC	
Bronze Age –	c.2300 – 700 BC	
Iron Age –	c.700 BC – AD 43	
Roman (Romano-British) Period	AD 43 – c. AD 410	Historic
Post-Roman / Early Medieval Period –	c. AD 410 – AD 1086	
Medieval Period –	1086 – 1536	
Post-Medieval Period <sup>1</sup> –	1536 – 1750	
Industrial Period –	1750 – 1899	
Modern –	20th century onwards	

<sup>1</sup> The post-medieval and Industrial periods are combined as the post-medieval period on the Regional Historic Environment Record held by Dyfed Archaeological Trust

## **2. POLICIES AND GUIDANCE**

### **2.1 The Historic Environment (Wales) Act**

2.1.1 The Ancient Monuments and Archaeological Areas Act 1979 was previously the primary legislation for protecting archaeological remains and scheduled monuments. This has more recently been superseded by The Historic Environment (Wales) Act 2016 which has three main aims as defined by Cadw:

- to give more effective protection to listed buildings and scheduled monuments;
- to improve the sustainable management of the historic environment; and
- to introduce greater transparency and accountability into decisions taken on the historic environment.

2.1.2 The new Act replaces the Ancient Monuments and Archaeological Areas Act 1979 and also the Planning (Listed Buildings and Conservation Areas) Act 1990. It is supported by a number of planning guidance documents. The Act most specifically provides better safeguards for the protection of scheduled monuments, listed buildings and historic parks and gardens. It also includes further guidance on place names.

### **2.2 Planning Policy Wales**

2.2.1 Planning Policy Wales (Ed.11, 2021) sets out the Welsh Government's land use planning policies. Its primary objective is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, the Well-being of Future Generations (Wales) Act 2015 and other key legislation.

2.2.2 Chapter 6, 'Distinctive and Natural Places', explains how planning systems must take into account the Welsh Government's objectives to protect, conserve, promote and enhance the historic environment as a resource for the general well-being of present and future generations. It also sets out the planning policies for the sustainable management of specific categories of historic environment assets.

### **2.3 Technical Advice Note 24: The Historic Environment**

2.3.1 This technical advice note provides guidance on how the planning system considers the historic environment during development plan preparation and decision making on planning and Listed Building consent applications. It also provides specific guidance on how the following historic environment assets should be considered:

- scheduled monuments
- archaeological remains
- listed buildings
- conservation areas
- historic parks and gardens
- historic landscapes
- historic assets of special local interest
- World Heritage Sites

- 2.3.2 The technical advice note usefully gathers together the selection criteria employed in the designation of scheduled monuments and listed buildings and the registration of historic parks and gardens and historic landscapes.
- 2.3.3. Advice and decisions on planning applications affecting nationally significant historic environment features (or designated historic environment assets) is provided by Cadw acting on behalf of Welsh Government.
- 2.3.4 This report will also make reference to other guidance documents published by Cadw, namely: Conservation Principles (March 2011); Heritage Impact Assessment in Wales (May 2017); Managing Historic Character in Wales (May 2017); and Setting of Historic Assets in Wales (May 2017).

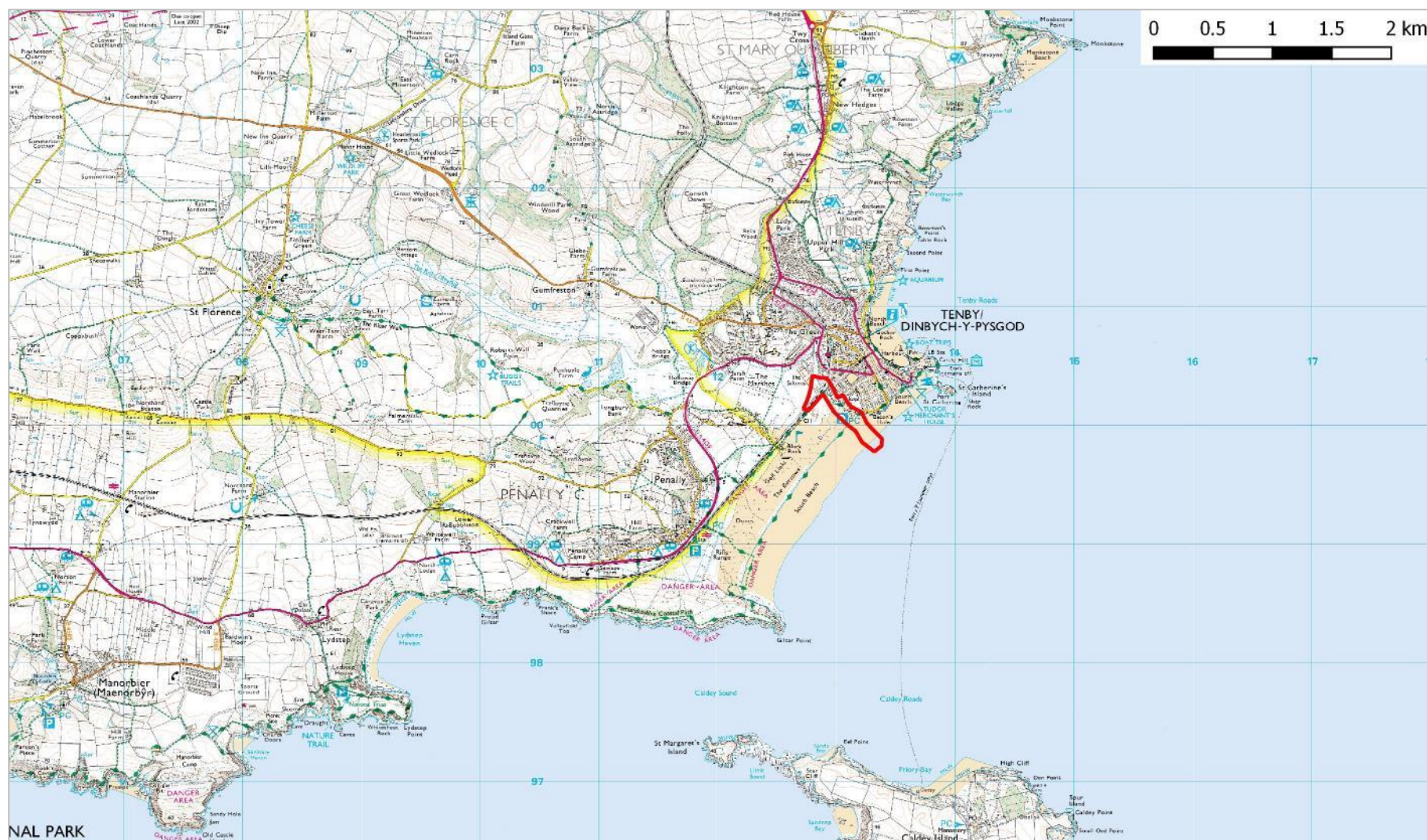
## **2.4 Local Development Plan**

- 2.4.1 The site lies within the Pembrokeshire Coast National Park (PCNP). The PCNP Authority Local Development Plan (LDP) was adopted in September 2020 (end date 2031), and sets out the planning development strategy for the area. The LDP policies are set out in line with national policy and guidance outlined above, but set out policies and proposals to meet the long term vision for the Park.
- 2.4.2 The historic environment is seen as a special quality of the National Park, and the LDP states one of its aims is:

*To conserve, enhance and promote the historic environment of the National Park, its archaeological resource, historic buildings and landscapes, parks and gardens (Policy 8).*

### **3 LOCATION, TOPOGRAPHY AND GEOLOGY**

- 3.1 The site is located on the western side of the town of Tenby, which is situated on the south coast of Pembrokeshire, southwest Wales (NGR SN 13050 00142).
- 3.2 The site is focussed on the culverted section of the River Ritec/Afon Rhydeg as it runs past Tenby. The river enters the culvert via a sluice gate and concrete box section on the north side of the railway embankment. The route then continues to the southeast as a buried masonry structure and passes underneath the railway embankment and a lawned area with patches of scrub and trees between a row of houses and cottages to the northeast, and Tenby Golf Club to the southwest. The culvert continues to pass underneath the South Beach car park, flanked by public conveniences, a pumping station and a café complex to the northeast, and scrub-covered sand dunes to the southwest. At the end of the car park the culvert enters a cast iron outfall pipe that runs underneath the sandy beach to discharge out at sea close to the low water mark.
- 3.3 The route runs along the foot of the elevated rock outcrop on which Tenby sits to the northeast. The ground rises relatively steeply in this direction, accessed via Battery Road. To the west and southwest the land is relatively low-lying, occupying from the former mouth of the river, an area known as 'The Marshes'. This area is bisected by the railway line, and to the northwest now comprises an extensive holiday park and tree-lined pasture, with sand dunes along the coastline to the southeast. The river runs along a relatively short valley to the west as far as the village of St Florence. To the southeast lies the extensive, sandy South Beach, which stretches between Castle Hill promontory/St Catherine's Island to the north and Giltar Point to the south.
- 3.4 As mentioned the town of Tenby largely lies on the higher ground to the north, extending along the northern side of the former Ritec/Rhydeg valley. On the south side of the valley lies the village of Penally, with the aforementioned St Florence at the head of the valley. The railway line crosses the site, with the main coastal road, the A4139, crossing the valley 1km upriver, at which point it branches with the A4139 continuing around the coast, and the Ridgeway following the ridge of higher ground, both meeting again at Lamphey to the west.
- 3.5 The rising ground to the northeast is formed from limestone of the Pembroke Limestone Group, with interbedded limestone, argillaceous rocks and sandstone to the south. This is largely overlain by blown sand deposits along the culverted section of the river, with alluvial deposits built-up to the northwest and west, and marine deposits to the southeast (BGS viewer).

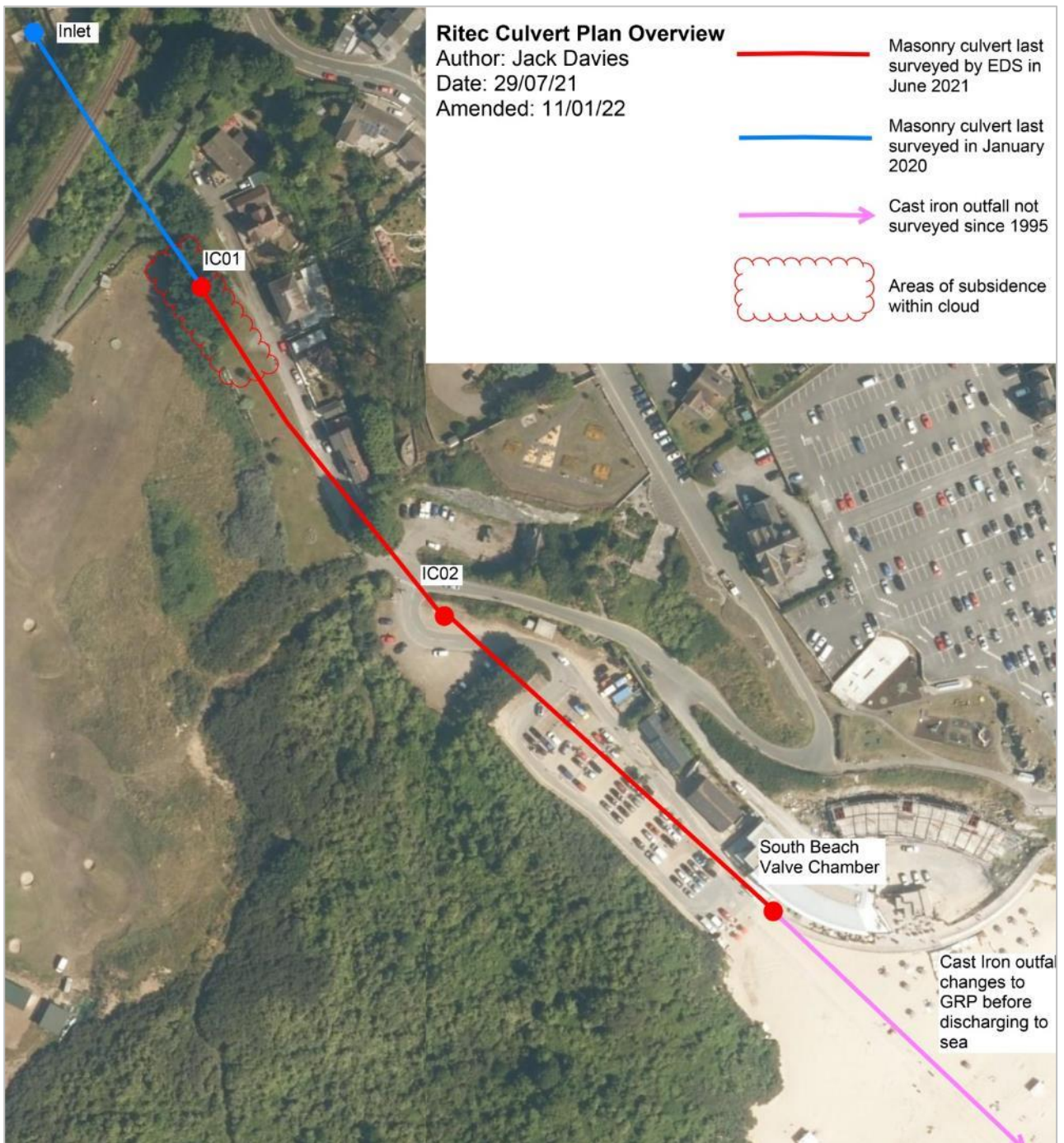


**Figure 1:** Location of development area, showing broad area of proposed works in red.

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**Figure 2:** Detailed plan showing the line of the culvert and areas of proposed repair work. Plan provided by the client.

## **4 DESIGNATED HISTORIC ASSETS (Table 2 and Figure 3)**

### **4.1 General**

- 4.1.1 A search of data held on several databases was made of historic assets within the 300m radius search area. This included both designated and non-designated assets, however, some designated assets beyond this 300m limit are included in order to identify any associated setting that may incorporate parts of the proposed development area. These designated assets are described first, as they largely comprise assets with some form of statutory protection.

### **4.2 Scheduled Monuments**

- 4.2.1 Scheduled Monuments are historic and archaeological sites considered to be of national importance. These sites are given legal protection, and consideration of the impact of development upon these sites and their settings are considerations of the planning process.
- 4.2.2 No Scheduled Monuments lie within the proposed development area. There is one Scheduled Monument (SM) within the 300m search area, Tenby Town Walls (PE007), which runs alongside South Parade and St Florence Parade on higher ground to the east. Beyond this area other sites of potential interest are The Watchtower (PE439), which occupies a prominent position on the southwest side of the Ritec valley approximately 500m to the west of the proposed development area, and Fort St Catherine (PE450) occupying a prominent island just off the coast of Tenby with views along South Beach, 700m to the east of the proposed development area. The following descriptions are taken from the record descriptions of Designated Historic Assets in Wales as reproduced on the online database 'Cof Cymru – National Historic Assets of Wales' (Cadw) <https://cadw.gov.wales/advice-support/cof-cymru> (accessed March 2022).
- 4.2.3 **PE007 – Tenby Town Walls.** The monument comprises the remains of a town wall dating to the medieval period. When completed the walls of Tenby, which formed a complete circuit of the medieval town, had three gateways and twelve towers. The walls were begun in late 13<sup>th</sup> century; a period of attacks including that included in 1260 when Llywelyn the Last succeeded in sacking the town. Originally the walls were low with a series of arrowslits defended from ground banked-up on the inside, the main gateway was then on the north. In 1328 a barbican was built around the then simple opening of the South Gate and over time the defences were strengthened by the addition of extra towers. In 1457 an arrangement was agreed between Jasper Tewdwr, Earl of Pembroke (1431-1495) and the townspeople, where each agreed to pay half of the sum required to further fortify the defences. This resulted in the heightening of the walls, a second, higher series of arrowslits being reached by a new parapet walk. At this time the moat which ran outside the landward wall was also widened. The remains visible today comprise a well preserved section of wall running south eastwards from near the site of the north or Carmarthen Gate to as far as the north west tower and then a connecting full length landward wall running south-eastwards which incorporates the South Gate and its barbican and six towers set at intervals. There are in addition the remains of an isolated tower once part of the south eastern town wall located on cliffs above the sea. The monument is of national importance for its potential to enhance our knowledge of medieval defensive organisation and of the growth of towns. The monument forms



an important element within the wider medieval context and the structure itself may be expected to contain archaeological information in regard to chronology, building techniques and functional detail.

- 4.2.4 **PE439 – The Watchtower.** The monument consists of the remains of a beacon or watchtower built before 1729, dating to the late medieval or early post medieval period and likely associated with the shipping trade. It is located on a headland overlooking the formerly navigable estuary of the Ritec and Caldey Sound. It may have had later use as a wind mill. It comprises a tapering, rubble limestone tower, now roofless, elliptical on plan measuring 3m by 2.4m externally and c. 6m high. The entrance on the north has an arch of chamfered stones brought from a medieval house on South Parade, Tenby during restoration c 1900 by the antiquarian Edward Laws. The jambs are modern. The tower is lit by a slit window to the south. The interior has a ring of joist holes for the first floor, above which the masonry is set back. There is a stone recess, c. 30cm square, on the ground floor and various sockets elsewhere in the tower. The monument is of national importance for its potential to enhance our knowledge of medieval communications. It retains significant archaeological potential, with a strong probability of the presence of associated archaeological features and deposits. The structure itself may be expected to contain archaeological information concerning chronology and building techniques.
- 4.2.5 **PE 450 – Fort St Catherine.** Fort St Catherine was constructed in 1868-70 and is prominently sited on the rocky St. Catherine's Island just offshore from Tenby. It is built on the site of a medieval chapel. The fort belongs to the system of fortifications added to improve the defences of Milford Haven and the Pembroke Naval Dockyard following the report of a Parliamentary Committee on these sea defences published in 1858. It was the only fortification built outside the Haven but its design consists of elements to be found in the other forts of this period. The fort was originally approached by a wooden bridge across the sands, but is now reached by a flight of rock cut steps from the beach. As the track approaches the fort it swings left and is carried on a revetment wall which forms the outside of the rock cut ditch which divides the island. Some original iron railings survive. Access to the fort is across the remains of the original drawbridge with its chains attached, resting on wooden cross-trees. The entrance façade is symmetrical and in rock faced ashler limestone. There is a semi-circular arched doorway with original door and iron grille which has a bold surround with verniculated quoins. Above is a date plaque reading V1870R and a corbel table and rolled bank below the parapet. The ends project forward and have three rifle loops in each of the three storeys to give covering along the ditch and windows with diamond leaded glazing to the front. The rectangular openings to the three main casemates down the north and south side are dressed in Lundy granite, whilst the eastern end shows three semi-circular projections carrying out the open battery above. The monument is of national importance for its potential to enhance our knowledge of 19<sup>th</sup> century military organisation. The monument forms an important element within the wider context of the military occupation of Wales and the structures may contain well preserved archaeological evidence concerning chronology, layout and building techniques.

### 4.3 Listed Buildings

- 4.3.1 Listed Buildings are buildings and structures of national importance given legal protection by being placed on a 'List' of Buildings of Special Architectural or Historic Interest. Buildings on the List are given one of three grades which denote their level of importance (Grade I, II\* & II), Grade I being the highest. A listed building may not be demolished, extended, or altered without special permission from the local planning authority.
- 4.3.2 There is one listed building on the periphery of the proposed development area, the grade II listed Festival of Britain Beacon (LB 26328), currently lying adjacent to the beach side promenade on the north side of South Beach car park.
- 4.3.3 **Festival of Britain Beacon (LB 26328).** A 19<sup>th</sup> century cast-iron gas lamp-standard with brazier on top, said to have been erected on the Esplanade, and altered for the 1951 Festival of Britain. It was moved later to its current location at the South Beach car park. It comprises a cast-iron tall column standard with fluted base and lower part of the shaft, carrying a bowl for the beacon with torches around the rim. It has a moulded ring at the foot, over base fluting, double ring above the shaft fluting and a double neck ring. The top is flared out to a vertical-sided bowl with four cast-iron antique torches attached to outside.
- 4.3.4 There are a further 42 listed buildings within the search area, all of which area Grade II listed. These buildings largely include a range of hotels, cottages, terraced rows and prominent houses, along with a church and a former convent, concentrated largely along the Esplanade and St Florence Parade in Tenby, to the east of the proposed development area. Also included in these listed buildings is a row of cottages on Marsh Road to the northwest, and Tenby railway station to the north. These buildings are too numerous to describe in detail here, but further information on each structure can be found at <https://cadw.gov.wales/advice-support/cof-cymru>.

### 4.4 Conservation Areas

- 4.4.1 Conservation Areas are designated to preserve and enhance the special character of areas of architectural or historic interest. The purpose of designating a Conservation Area is to provide the Planning Authority with an additional measure of control over an area that they consider to be of special historic and/or architectural value.
- 4.4.2 The bulk of the listed buildings mentioned above lie within the Tenby Conservation Area. This area is drawn around the historic core of Tenby to the northeast of the proposed development area, but extends along the Esplanade as far as the café complex on the northeast side of the proposed development area, and also includes South Beach to the northeast of this point. In 2019 the Conservation Area was extended to include the area along the north side of Battery Road and high ground overlooking the South Beach car park. The proposed development area lies just outside the limits of this Conservation Area.

### 4.5 Registered Historic Landscapes

- 4.5.1 Registered Historic Landscapes are landscapes of historic interest included on the Register of Landscapes of Historic Interest in Wales (Cadw 1998).

The landscape boundaries and associated details have been created as non-statutory advice to assist decision makers and landscape managers to help ensure that the historic character of the landscape is sustained, and that where change is contemplated, it is well-informed.

- 4.5.2 The proposed development area does not lie within any registered Historic Landscape, nor do any lie within the wider search area.

#### 4.6 Registered Historic Parks & Gardens

- 4.6.1 Parks and gardens of special historic interest in Wales are included on a Register of Historic Parks and Gardens, designed to provide comprehensive information to assist decision makers to help protect and preserve essential features of these parks and gardens, and enable their significance and character to be protected through the planning system.

- 4.6.2 There are no registered historic parks and gardens in the study area.

**Table 2:** Designated historic assets within the study area

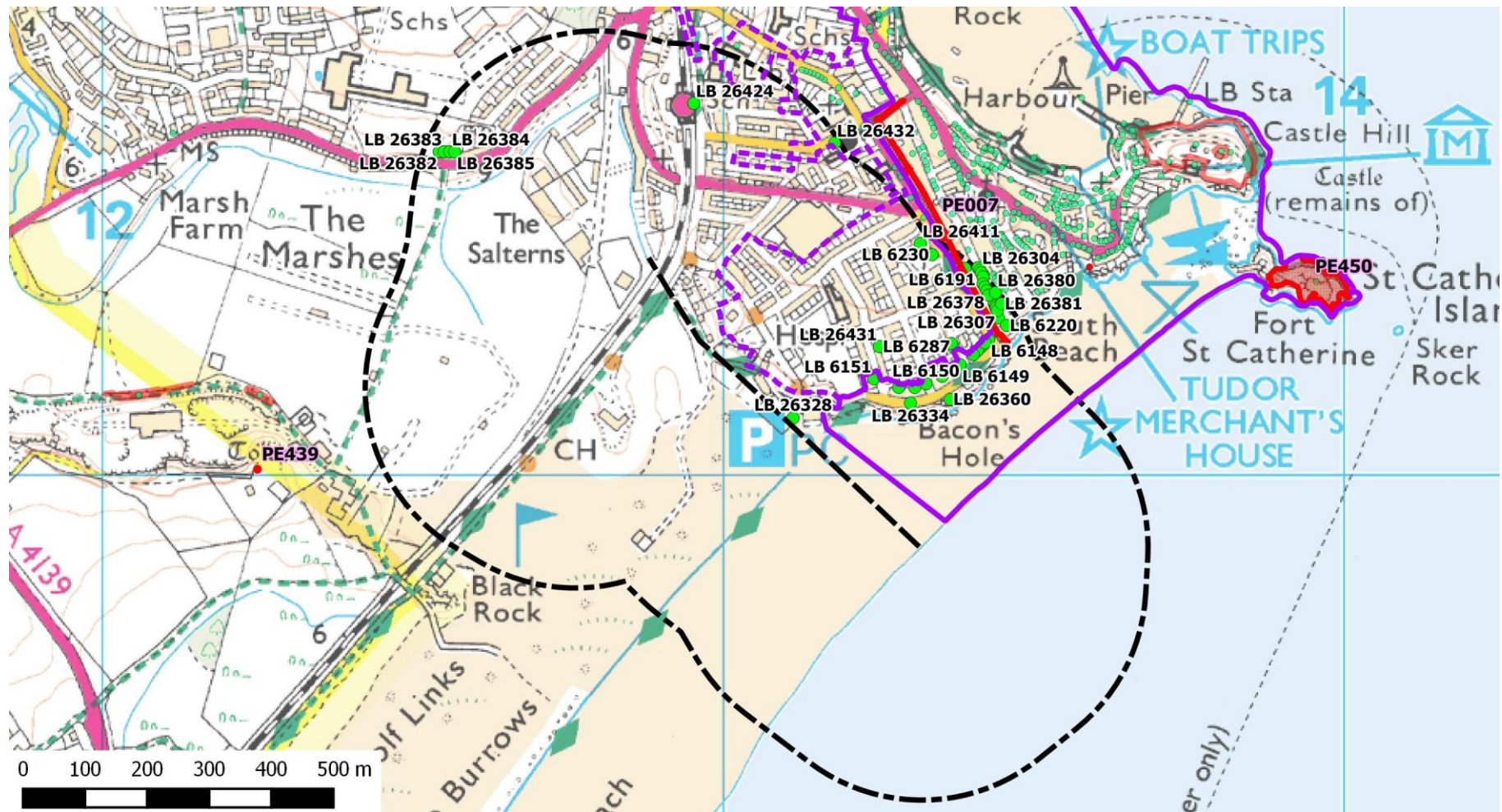
Site / Building Name	Cadw Ref.	NGR (Eastings / Northings)	Designation
Tenby Town Walls	PE007	213344 200405	Scheduled Monument
The Watchtower	PE439	212246 200004	Scheduled Monument
Fort St Catherine	PE 450	213943 200307	Scheduled Monument
The Esplanade Hotel and railings	LB 6148	213424 200214	Listed Building (Grade II)
Clarence House Hotel and area railings	LB 6149	213378 200173	Listed Building (Grade II)
The Giltar Hotel and area railings	LB 6150	213323 200142	Listed Building (Grade II)
The South Beach Hotel and area railings	LB 6151	213239 200150	Listed Building (Grade II)
Tower Cottage	LB 6188	213379 200328	Listed Building (Grade II)
No 1 Alpha Cottages	LB 6189	213386 200328	Listed Building (Grade II)
No 1 Frogmore Terrace	LB 6192	213433 200271	Listed Building (Grade II)
Garden wall to Quaintways	LB 6193	213440 200248	Listed Building (Grade II)
Imperial Hotel	LB 6220	213453 200236	Listed Building (Grade II)
Church of the Holy Rood and Saint Teilo	LB 6230	213333 200350	Listed Building (Grade II)
Chestnuts	LB 6287	213367 200202	Listed Building (Grade II)
Buckingham House and area railings	LB 26294	213412 200202	Listed Building (Grade II)
Hotel Panorama and area railings	LB 26295	213406 200196	Listed Building (Grade II)

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Connaught House and area railings	LB 26300	213305 200136	Listed Building (Grade II)
Belgrave Hotel and area railings	LB 26301	213279 200136	Listed Building (Grade II)
The Atlantic Hotel and area railings	LB 26302	213349 200154	Listed Building (Grade II)
No 2 Lydstep Buildings	LB 26304	213410 200325	Listed Building (Grade II)
No 2 Frogmore Terrace	LB 26305	213435 200267	Listed Building (Grade II)
No 3 Frogmore Terrace	LB 26306	213436 200264	Listed Building (Grade II)
No 4 Frogmore Terrace	LB 26307	213438 200260	Listed Building (Grade II)
Carnock House and railings	LB 26310	213399 200189	Listed Building (Grade II)
Festival of Britain beacon	LB 26328	213105 200075	Listed Building (Grade II)
Railings and retaining walls to seafront	LB 26334	213298 200111	Listed Building (Grade II)
Saint Agatha's and railings	LB 26354	213418 200208	Listed Building (Grade II)
Cliff terrace to the Atlantic Hotel	LB 26360	213362 200117	Listed Building (Grade II)
Winkle Cottage	LB 26373	213415 200318	Listed Building (Grade II)
Cilrhiw	LB 26374	213412 200321	Listed Building (Grade II)
Gumfreston Cottage	LB 26375	213415 200314	Listed Building (Grade II)
Frogmore Villa	LB 26376	213415 200303	Listed Building (Grade II)
No 2 Frogmore Villas	LB 26377	213418 200298	Listed Building (Grade II)
No 3 Frogmore Villas	LB 26378	213421 200292	Listed Building (Grade II)
York House	LB 26379	213424 200285	Listed Building (Grade II)
Garden railings to York House	LB 26380	213435 200289	Listed Building (Grade II)
Railings to Frogmore Terrace	LB 26381	213445 200271	Listed Building (Grade II)
No 1 Marsh Road Cottages (Casa Vecchia)	LB 26382	212539 200516	Listed Building (Grade II)
No 2 Marsh Road Cottages (Sunpatch)	LB 26383	212547 200516	Listed Building (Grade II)
No 3 Marsh Road Cottages (Watermans Cottage)	LB 26384	212556 200516	Listed Building (Grade II)
No 4 Marsh Road Cottages	LB 26385	212564 200516	Listed Building (Grade II)
The Old Convent of St Teresa	LB 26411	213314 200368	Listed Building (Grade II)
Tenby Railway Station (main entrance range)	LB 26424	212949 200594	Listed Building (Grade II)
Bedford House	LB 26425	213364 200207	Listed Building (Grade II)

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,32,Victoria Street,,Tenby,,SA70 7DY	LB 26431	213248 200202	Listed Building (Grade II)
County Chambers (former Congregational manse)	LB 26432	213176 200530	Listed Building (Grade II)
Tenby Conservation Area	-	-	Conservation Area



**Figure 3:** Map showing the proposed development site and surrounding designated assets. The approximate line of the culvert is marked as a dashed line, the outer line marking the 300m search area. Scheduled Monuments are shown as red areas, Listed Buildings as green dots, and Tenby Conservation Area outlined in purple (with approximate line of 2019 extension dotted in).

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## **5 NON-DESIGNATED HISTORIC ASSETS (Table 3 and Figure 4)**

### **5.1 General**

- 5.1.1 A search of the regional Historic Environment Record (HER) and other databases was made within the 300m search area around the proposed development.
- 5.1.2 The HER records 84 assets within the search area. 29 assets are also recorded on the NMR database, held and maintained by the RCAHMW, many of which are also recorded in the HER. The Portable Antiquities Scheme (PAS) database also records sixteen findspots from the search area, comprising twelve Roman coins, two Byzantine coins and two medieval ampullas.
- 5.1.3 The following information is laid out chronologically to provide an archaeological and historical background for the development area and its environs for each period, along with the relevant recorded assets pertaining to that period.

### **5.2 Palaeolithic, Mesolithic & Neolithic**

- 5.2.1 There are no Palaeolithic sites within the search area. However, 1.5km to the west of the site lies Hoyle's Mouth, a cave site on the south side of the Ritec valley (PRN 14209). This cave has undergone several excavations over the years, uncovering a number of artefacts dating to the later Palaeolithic (Creswellian), as well as potentially earlier (Aurignacian) artefacts. The site is considered by some to represent a base camp, from which expeditions could be made into the surrounding countryside (Campbell 1977). Further Palaeolithic artefacts have been recovered from cave sites on Caldey Island which lies just off the coast, around 3km to the south. Alongside the evidence of human activity, a variety of animal bones have been recovered from these cave sites, including bear, hyena, lion and others. The local environment would have been much different from today, with periods where the landscape would have been similar to arctic tundra, and sea levels would have significantly lower.
- 5.2.2 These finds indicate the presence of human groups in the area during the Palaeolithic period, with the area being a focus of repeated settlement. It both highlights the increased potential for further rare archaeological remains of Palaeolithic date, but also that such remains have only been recovered from the careful excavation of cave deposits.
- 5.2.3 There are no sites of a Mesolithic date within the search area. Flint flakes of this period have also been recovered from the cave deposits within Hoyle's Mouth, as discussed above, while Mesolithic human remains have been found in Little Hoyle Cave 500m to the south. The cave sites on Caldey Island have also produced human remains and flint artefacts of this period (Schulting and Richards 2015). As such, the potential for Mesolithic activity is similar to that of the Palaeolithic period. However, some chance finds from beach deposits have also been reported in the Penally area, so coastal areas such as this do tend to have an increased potential for such finds to turn up.
- 5.2.4 There are no sites of a Neolithic date within the search area. Slightly further afield however, as with the Palaeolithic and Mesolithic periods, cave sites in the area have proved to be an invaluable resource for these archaeological remains, and were clearly used as shelters and settlement sites during all of



these periods. Alongside this, Neolithic flint flakes and a possible midden site on Giltar Point at the southern end of South Beach, 1.6km to the south of the site provide the first evidence of settlement outside caves (PRNs 4240, 4241 & 5013). By this period sea levels would have risen to levels similar to those of today, and tidal saltmarsh is likely to have been developing around the wide mouth of the Ritec.

### **5.3 Bronze Age**

- 5.3.1 There are no recorded sites of Bronze Age date within the search area. Once again the cave sites from the surrounding area produce evidence of activity during the Bronze Age, but this period also begins to produce evidence of funerary and ritual activity in the surrounding landscape. Round barrows, mounds of earth and stone that typically contain burials, are known from the Giltar Point area, and also along the Ridgeway, a route that appears to be of significance for much of the Prehistoric period.
- 5.3.2 Despite more widespread evidence of archaeological remains beyond the cave sites there is little in the distribution of known sites to suggest any particular heightened potential for the proposed development area.

### **5.4 Iron Age & Roman**

- 5.4.1 There are two recorded sites of possible Iron Age date within the search area, both are coins. One is a highly unusual coin of Menander (167-145 BCE) (PRN 3423/3693). Menander was an Indo-Greek king of Bactria, a country that spanned present day Afghanistan, Uzbekistan and Tajikistan. The coin was apparently recovered, along with a 1<sup>st</sup> century AD Roman coin, from excavations associated with the construction of Mentmore House in 1880, and was subsequently deposited in Tenby museum. Mentmore House was located opposite the South Gate of the walled town, at the southern end of St Florence Parade. The coin was apparently recovered from deposits 2ft below the surface (RCAHMW 1925). The PAS database also records a second possible Greek coin from the Iron Age, this being a gold stater, recovered from the beach in an eroded condition.
- 5.4.2 There is no clear explanation for the presence of these unusual Iron Age coins in the area, but they are more likely to represent loss by more recent (18<sup>th</sup>/19<sup>th</sup> century) collectors than evidence of Iron Age trade links. There are relatively few Iron Age sites in the wider landscape, although this too would appear unusual given the topographical location of Tenby and its adjacent islands, all of which are typically good locations for the defended Iron Age settlements that are such a prominent feature of the Pembrokeshire coastline. The medieval castle site may originally have been defended in the Iron Age, although archaeological evidence for this is currently lacking. It is possible that Iron Age activity has become lost through medieval and post-medieval development in the area and therefore the potential for Iron Age archaeology in the area cannot be discounted.
- 5.4.3 Coinage would also appear to be the main evidence for activity in the area during the Roman period as well. Three coins are recorded in the HER (PRNs 3693, 3696 and 3704), but around 19 are recorded on the PAS database for the local area. Such a collection could be an indication of previously unrecorded activity in the area during the Roman period, however the PAS records indicate the coins are attributable to an almost continuous succession of Roman emperors from Vespasian in AD69-79 all the way through to Honorius in AD393-402 (also including two Byzantine

emperors of 6<sup>th</sup> and 7<sup>th</sup> century). Such a spread is highly unusual, and speaks more of a deliberate (later) collection of Roman-era coinage, rather than Roman activity.

## **5.5 Early Medieval & Medieval Period**

- 5.5.1 There is one record of early medieval activity within the search area. PRN 10153 is a general reference to Tenby being a landing point during this period. There are no further details regarding this site, but in the wider area are several sites of interest from this period.
- 5.5.2 Tenby is mentioned in a 10<sup>th</sup> century poem, Etmic Dinbych, indicative of some form of settlement in the area, although the form this settlement took is unknown. A short distance to the west Longbury Bank, near Hoyle's Mouth Cave, has produced rare evidence of high status settlement dating to the 6<sup>th</sup> and 7<sup>th</sup> centuries AD, including imported continental pottery and glassware. The nearby Trefloyne is thought to occupy the site of 'Villa Luin Teiliau', mentioned in the early 11<sup>th</sup> century, the name suggesting that it was regarded as the birthplace of St Teilo, the early 6<sup>th</sup> century saint. The adjacent Castell Gwynne, a site now occupied by the golf course, is potentially an associated ecclesiastical site, and taken together these sites and references are indicative of a relatively large and potentially important early medieval site. In addition, Penally Church to the south is thought to be the site of an ecclesiastical settlement (Clas) that is mentioned in the later 7<sup>th</sup> century. This was potentially a site of considerable longevity, as a number of 10<sup>th</sup> century cross fragments have also been discovered in and around the church. The medieval Priory on Caldey Island also has records of early medieval inscribed stones, one of apparent 8<sup>th</sup> century date, and the island is thought to have been the location of an early medieval monastic site and cemetery. These records indicate that this corner of Pembrokeshire was an active area for much of the early medieval period, therefore the potential for further early medieval archaeological remains in the vicinity is high.
- 5.5.3 In the late 11<sup>th</sup> or early 12<sup>th</sup> century the Anglo-Norman invaders established a castle at Tenby during their conquest, situated on the rocky promontory now known as Castle Hill. They may have been drawn to the spot by pre-existing settlement, but the medieval period is generally regarded as the beginnings of the town. A settlement would have quickly developed around the castle and harbour focussed on North Beach. Early 12<sup>th</sup> century documents mention a port, and a parish church was also established during the 12<sup>th</sup> century. The town may initially have been defended following an attack by Maelgwyn ap Rhys in 1187, and was subsequently defended by a stone wall during the 13<sup>th</sup> century. The earliest known charter for the town dates to around 1290, and 13<sup>th</sup> and 14<sup>th</sup> century documentary sources chart a steadily growing population until a decline in the 15<sup>th</sup> century following the Black Death. The settlement was largely confined to the walled area on the eastern side of the promontory to the east of the development area, but extra mural development began to spread to the north in Norton, and outside the South Gate and Laston Gate.
- 5.5.4 There are five records of medieval sites within the search area, however each record is for a site within the medieval town of Tenby, and has a general grid reference as the precise location has either not been identified, or covers too large an area. None of these records refer to specific sites known to exist within the search area.

- 5.5.5 The presence of the growing medieval town of Tenby in such close proximity to the site raises the potential for further medieval activity within the site area. Given the topography of the site it is likely the route of the river would have moved throughout this period, with saltmarsh and sand dunes developing across this area. As such, permanent settlement may be unlikely, but other structures exploiting the river, marsh and sea may be present, particularly as the river is likely to have been navigable by boat for potentially a couple of kilometres inland during this period.

## **5.6 Post-Medieval & Modern Periods**

- 5.6.1 The prominence and defensible nature of the town meant that it played a role in the Civil War of the 1640s. Parliamentary forces laid siege to the town in 1648, with one of the gun emplacements used to bombard the town and castle lying within the search area (PRN 17305). The Royalist garrison surrendered the castle and the Parliamentary forces moved on to their main target of Pembroke. Following the Civil War, the need to defend Tenby remained, with other gun emplacements recorded (PRN 33770) and a possible fort (PRN 120807) and gun emplacement (PRN 120806) sited on the headland overlooking South Beach and the mouth of the Ritec. Little clear evidence of this site remains, but it appears to be marked on a mid-18<sup>th</sup> century map, and early limestone walling lies around the area, some with identifiable loop holes.
- 5.6.2 Despite the presence of the forts, and the importance of maritime trade, Tenby appears to have gone into a decline from the 17<sup>th</sup> century, with later 17<sup>th</sup> century accounts stating 'the port and towne of Tenby is very near come to utter ruine and desolation' (quoted in Murphy 2021). At the beginning of the 19<sup>th</sup> century the town was still relatively small, and focussed along the North Beach frontage, with some of the medieval walled town still unoccupied.
- 5.6.3 From the early 19<sup>th</sup> century however Tenby reinvented itself as a tourist destination, and quickly rose in prominence with the population and development expanding rapidly. Many of the buildings within Tenby date from the 19<sup>th</sup> century, and these account for the bulk of the sites recorded in the HER (PRNs 6722, 6728, 6729, 20527, 20589, 20590, 20592, 20632, 20892, 59811, 59817, 59822, 59823, 59824, 59827, 59870, 59876, 59892-5, 59898-59901, 59939, 59945, 59946, 60141, 60143 & 110423). As a tourist destination large numbers of hotels were also built, or converted from houses (PRNs 6467, 6722, 6728, 20513, 59812, 59818, 59819, 60116, 60117). The increasing population also led to a variety of other buildings in the town, including chapels (PRN 20630 & 60168), churches (PRN 20504) and even a Roman Catholic monastery (PRN 59927). These sites are evidence for the sudden expansion of Tenby to the west of the walled town, but they do not extend into the proposed development area.
- 5.6.4 The mouth of the river Ritec remained a tidal estuary and area of salt marsh until the early 19<sup>th</sup> century. 18<sup>th</sup> and 19<sup>th</sup> century illustrations refer to this area as 'The Backwater' or 'The Pill' (James 1992). There are 17<sup>th</sup> century accounts that detail boats travelling into this estuary to offload stone at Pill Lake, and early maps mark a quay near Marsh Road. It is likely that boats could travel up on the flood tide to the Pill and Backwater Quay, being 'neaped' on the salt marshes during low tides, with the result that ship remnants may be preserved in the marsh deposits in this area (ibid., 5). In 1804 Edward Donovan describes crossing the river via a ford at low tide, and via stepping stones up to a moderate tide. Further upstream the

Holloway Bridge has been in place since at least the early 18<sup>th</sup> century. Other 18<sup>th</sup> century references indicate that the marsh was being used to graze cattle and horses, with the townsfolk having traditional rights of fishing and fowling on the marsh. Blue clay was also extracted from the marsh to mix with coal dust to make a local culm.

- 5.6.5 By the 17<sup>th</sup> century the upper parts of the marsh beyond the Holloway Bridge were being enclosed and drained. In the early 19<sup>th</sup> century the Owens of Orielson had acquired much of this area, and began to expand the areas of enclosure. At some point between 1811 and 1820 Sir John Owen built an embankment (PRN 115089) from Black Rock crags on the southwest side of the river, across to the Town Quarries (PRN 20629) on the other side, partly utilising a sand bank that had been building up. The aim was to prevent tidal flooding and drain the land to create more profitable farmland. This had limited success however, as the bank was breached by the sea in 1826, with the land presumably returning to salt marsh. The embankment was rebuilt more successfully by Charles Mathias of Lamphey Court in 1840, with the upriver marshland, known as Holloway Water (PRN 115083) drained and turned into productive farmland.
- 5.6.6 The embankment was strengthened when it became partly used for the line of the new Pembroke and Tenby Railway (PRN 115092) in 1863. This railway originally terminated at Tenby, with the line of the original route now preserved as the access road to the Salterns car park. The original railway station was located on this line to the west of the current station. In 1864 the line was extended to Whitland, and the current line and railway station (PRN 20628 / 59938) were built, opening in 1866, with the original station becoming a railway works.
- 5.6.7 The original Owen and Mathias embankments controlled the flow of water via floodgates. An initial culvert built to alleviate flooding behind the 1840 embankment collapsed and was abandoned. Presumably the present culverted section (PRN 29927) of the River Ritec was first installed when the later section of railway line and embankment was established in 1864, as this is the point at which the culvert starts. The line of the culverted section of river is visible on late 19<sup>th</sup> century maps as a series of airshafts (PRN 29928); these shafts no longer visible and are possibly infilled. The culvert is described as being of masonry construction, typically an arch shaped structure 1.5m high and 2.3m wide, running for 400m (Atkins 2011). This masonry culvert connects to the piped outfall which runs for another 400m, and is visible close to low water, as an iron pipe with heavy banding (PRN 30042). Local newspaper reports suggest that the culvert was prone to blockages for much of its early history (for example, The Pembrokeshire Herald and General Advertiser, articles in 20/2/1874 & 12/2/1904), with regular discussions about widening the mouth of the culvert, and extending it in 1910.
- 5.6.8 A variety of late post-medieval small-scale industrial sites are located along this lower stretch of the Ritec as it runs along the foot of the higher ground to the east. A timber yard (PRN 115091) lay on the north side of the river, near the point where it turns southward. The yard was owned by the late 18<sup>th</sup> to mid-19<sup>th</sup> century merchant Thomas Sleeman. Timber was apparently brought up to the yard by boat, indicating it likely pre-dated the 1840 embankment. Late 19<sup>th</sup> century Ordnance Survey maps mark a number of quarries (PRN 20629) along the eastern banks of the Ritec, many of which had gone by the time early 20<sup>th</sup> century mapping was published. The origins of the quarries are unknown, but the quarrying of local limestone was a significant local industry throughout the 19<sup>th</sup> century. These quarries may have been operating prior to the enclosure of the marsh, loading directly

onto boats along the river, but clearly continued operating after the enclosure and arrival of the railway, which appeared to provide a spur to further quarrying in the area.

- 5.6.9 At some point a corn mill was built at the foot of the hill below Battery Road on the east bank of the Ritec (PRN 33769). There appears to be very little recorded about this mill, but it is shown on the 1<sup>st</sup> edition Ordnance Survey map of 1890, by which time it was already out of use. The earliest clear depiction of the mill comes from a Charles Norris drawing of the mouth of the Ritec in 1837 (reproduced in James 1992). There are also brief references in some local literature about a steam mill, which would appear to refer to this site. For example, Mason (1859), in describing local flora, states "In Merlin's Cave, near the steam-mill, grows *Asplenium Marinum*". Merlin's Cave (PRN 30047) at this time was a popular tourist attraction located a short distance away on South Beach. In another book on local flora Falconer (1848) describes some fennel "Between new Steam Mill and Locke's Cottages, near the stream". The reference to a 'new' mill suggests that it was probably built shortly prior to its depiction in the Norris drawing of 1837, presumably drawing water from the Ritec in some manner to feed a stationary steam engine, which was used to power the grinding mechanisms for the corn. A more traditional windmill (NPRN 524976) stood on the hillside above the steam mill, and was operating into the mid to late 19<sup>th</sup> century, but the site has since been redeveloped.
- 5.6.10 The steam corn mill was replaced in the late 1920s by the South Beach amusement pavilion (PRN 8452), which opened in 1929. It was a 6-storey concrete and iron building, built by Michael William Shanly, and known as Shanly's Pavillion from 1929 to 1937. "It combined under one roof, a roof garden for band concerts and concert parties, a cinema, soon to have the 'talkies', a very fine ballroom, a restaurant and a basement amusement arcade. It was wisely provided with a large car and coach park, and it had adjoining tennis courts and a roller-skating rink. The Pavilion seems to have anticipated the disco, for it introduced dancing to gramophone records played on the panotrope." (Journal of the Pembrokeshire Historical Society - Vol. 2 1986-1987 Tenby guides and Tenby visitors, c.1800-1940). The tennis courts were initially laid out on the seaward side of the building. The cinema remained open until 1973, and the building was eventually demolished in 1978. Since this time the current development and access to the beach has been established, which includes the car park, pumping station, public conveniences and a café complex. Also included in this is a modern ramp down to the beach (PRN 32794), and concrete steps (PRN 33772), just within the development area. Nearby a Grade II listed cast iron beacon stands on the sea front (PRN 59844). This was built to celebrate the Festival of Britain, and was later moved to its current location, with the given grid reference also suggesting that it may have been moved slightly during recent development works on the front.
- 5.6.11 The establishment of the embankment in the 1840s led to the rapid build-up of sand dunes along the front. Victorian guide books soon extolled the beauty of these dunes, known as the Burrows, and in 1888 a Golf Club, one of the earliest in Wales, was founded here (James 1992). The spread of sand impacted upon some of the sites in this area, blocking the culvert at times, and also blocking the entrance to Merlin's Cave.
- 5.6.12 The beach has also proved the source of some of the chance finds from the area, including a late 18<sup>th</sup> century bronze medal of Pope Pius VI, and part of a Second World War sea mine (PRN 125881).

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**Table 3:** All sites recorded on the HER

PRN	NPRN	Site Name	Type	Period	NGR
3370		Tenby	Field System	Medieval; Post Medieval	SN12250071
3423		Tenby	Coin of Menander find	Iron Age (2 <sup>nd</sup> cent. BC)	SN133001
3693		Mentmore House	Menander Coin and Vespasian Coin finds	Iron Age; Roman	SN133001
3694		Bacon's Hole	Courseware pottery find	Unknown	SN133001
3696		Tenby	Finds	Roman	SN1300000000
3697		Tenby Town Walls; Five Arches The	Town Defences	Medieval	SN1300000000
3704		Merlin's Cave	Finds	Roman	SN1300000000
4696		Tenby	Bronze Fibula and bronze/silver seal ring find	Medieval	SN133001
6467		The Esplanade	Terrace	Post Medieval (19 <sup>th</sup> cent.)	SN1342400214
6722	22188	Imperial Hotel	Dwelling	Post Medieval (19 <sup>th</sup> cent.)	SN1345300236
6728		Somerset House; Tenby Auxiliary Hospital	Dwelling; Military Hospital	Post Medieval; Modern	SN1323900150
6729		Phyllis And Ryder	Dwelling	Post Medieval Early 19 <sup>th</sup> cent.)	SN132004
7444		Cliff Mansion	Mansion	Medieval	SN1300000000
7446		High Street	Dwelling	Medieval; Post Medieval	SN1300000000
8452	32119	South Beach Pavilion; Shanly's Pavilion	Pavilion	Modern (1929 - 1979)	SN13050015
8887		Deer Park, Garden Wall	Outworks; Garden Wall	Post Medieval	SN131006
10153		Tenby	Landing Point	Early Medieval	SN1300000000
10528		Tenby	Cross	Medieval	SN1300000000
17305		Tenby	Civil War Gun Emplacement	Post Medieval (1644)	SN133003
20504	421519	Holyrood and St Teilo	Church	Post Medieval (19 <sup>th</sup> cent.); Modern	SN133003
20513	30252	Esplanade The; South Beach Hotel	Hotel	Post Medieval (Victorian)	SN1323900150
20581		Quaintways	Wall	Post Medieval	SN13450025
20589	30308	Tower Cottage	Dwelling	Post Medieval	SN13380033
20590	21590	Lower Frog Street No.2 Alpha Cottage	Dwelling	Post Medieval (18 <sup>th</sup> - 19 <sup>th</sup> cent.)	SN13390033
20592	21589	Lower Frog Street Nos.1 2 Lydstep Buildings	Dwelling	Post Medieval (19 <sup>th</sup> cent.)	SN13400032
20627			Saw Mill	Post Medieval	SN12880073
20628		Tenby Station	Railway Station	Post Medieval (1862/3)	SN12950057
20629		Queen's Quarry	Quarry	Post Medieval	SN12970036
20630	11007	Warren St Wesleyan Methodist Chapel	Church	Post Medieval (19 <sup>th</sup> cent.)	SN13080057
20632		Weston Lodge	Lodge	Post Medieval	SN13110059
20892	21754	Chestnuts; Bedford House	Dwelling	Post Medieval (Victorian)	SN1336700202
20986			Papal medal find	Post Medieval	SN133001

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				(18 <sup>th</sup> cent.)	
29927		South Beach Culvert	River Culvert	Post Medieval (19 <sup>th</sup> cent.)	SN131000
29928		Shaft	Air Shaft	Post Medieval (19 <sup>th</sup> cent.)	SN1310500081
30042		South Beach	Pipeline (piped outfall)	Post Medieval; Modern	SS13279984
30047		Merlin's Cave	Cave	Modern	SN13150011
30049		Imperial Hotel	Beach access stairway	Post Medieval	SN13460022
30050		The Esplanade	Beach access stairways and viewpoints	Post Medieval	SN13360012
32794			Beach access ramp	Modern	SN13200010
33769	424467		Corn Mill; Steam Mill	Post Medieval	SN1305800153
33770			Gun Emplacement	Post Medieval	SN13230028
33772			Beach access steps	Modern	SN13270033
59811	21918	Buckingham House and area railings	House	Post Medieval	SN1341200202
59812	21918	Hotel Panorama and area railings	House	Post Medieval	SN1340600196
59817		Connaught House and area railings	House	Post Medieval	SN1330500136
59818	21919	Belgrave Hotel and area railings; St John's Wounded Soldiers Hospital	House; Military Hospital; Military Headquarters	Post Medieval; Modern	SN1327900136
59819	21917	The Atlantic Hotel and area railings	House; Military Headquarters (Belgian Combat Unit)	Post Medieval; Modern (WWII)	SN1334900154
59822	21941	No 2 Frogmore Terrace	House	Post Medieval	SN1343500267
59823		No 3 Frogmore Terrace	House	Post Medieval	SN1343600264
59824		No 4 Frogmore Terrace	House	Post Medieval	SN1343800260
59827	21918	Carnock House and railings	House	Post Medieval	SN1339900189
59844	41403	Festival of Britain Beacon	Beacon	Modern (1951)	SN1310500075
59850		Railings and Retaining Walls to Seafront	Railings	Post Medieval	SN1329800111
59870	21920	Saint Agatha's And railings	Flats	Post Medieval	SN1341800208
59876		Cliff Terrace to The Atlantic Hotel	Terraces	Post Medieval	SN1336200117
59892		Frogmore Villa	House	Post Medieval	SN1341500303
59893		No 2 Frogmore Villas	House	Post Medieval	SN1341800298
59894		No 3 Frogmore Villas	House	Post Medieval	SN1342100292
59895		York House	House	Post Medieval	SN1342400285
59898		No 1 Marsh Road Cottages (Casa Vecchia)	Cottage	Post Medieval	SN1253900516
59899		No 2 Marsh Road Cottages (Sunpatch)	Cottage	Post Medieval	SN1254700516
59900		No 3 Marsh Road Cottages (Watermans Cottage)	Cottage	Post Medieval	SN1255600516
59901		No 4 Marsh Road Cottages	Cottage	Post Medieval	SN1256400516
59927		The Old Convent Of St Teresa	RC Monastery	Post Medieval	SN1331400368
59938		Tenby Railway Station (Main Entrance Range)	Railway Station	Post Medieval (1864)	SN1294900594
59939		Bedford House	House	Post Medieval	SN1336400207
59945			House	Post Medieval	SN1324800202
59946		County Chambers (Former Congregational Manse)	House	Post Medieval	SN1317600530
59948		Tenby Town Walls	Town Walls	Post Medieval	SN1334600380

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60116		Clarence House Hotel and area railings	Hotel And Railings	Post Medieval	SN1337800173
60117		The Giltar Hotel and area railings	Hotel And Railings	Post Medieval	SN1332300142
60143		No 1 Frogmore Terrace	House & Forecourt Walls and railings	Post Medieval	SN1343300271
60144		Garden Wall to Quaintways	Garden Wall	Post Medieval	SN1344000248
60168		Church Of The Holy Rood and Saint Teilo	Chapel	Post Medieval	SN1333300350
105412	401503	The Burrows, Penally	Rabbit Warren	Post Medieval	SS12509940
110423		22 Victoria Street	Military Headquarters (Royal Marines Division Artillery)	Modern (WWII)	SN13220020
115083		The Marshes; Holloway Water	Land Reclamation	Post Medieval (19 <sup>th</sup> cent.)	SN1244000211
115086		The Marshes	Racecourse	Post Medieval (19 <sup>th</sup> cent.)	SN1230000230
115088		Blackrock	Cave (including animal bones)	Unknown	SN1215000090
115089		Ritec	Sea Defences	Post Medieval (Early-mid 19 <sup>th</sup> cent.)	SS1259099950
115091		Tenby	Timber Yard	Post Medieval (18 <sup>th</sup> - 19 <sup>th</sup> cent.)	SN12800064
115092		Pembroke & Tenby Railway	Railway	Post Medieval (19 <sup>th</sup> cent.)	SN1276700258
120806		Battery Road	Fort	Post Medieval	SN1314000153
120807	303212	Battery Road	Fortification	Post Medieval	SN1311400240
125881		South Beach	WWII Sea Mine detonator	Modern (WWII)	SN135001
-	407618	Former Fountains Café	Café	Modern	SN13140010
-	11003	Baptist Chapel, Upper Park Road; Salvation Army Citadel	Chapel	Post Medieval	SN1324600423
-	270322	Pillbox (Type FW3-24)	Pillbox	Modern (WWII)	SN13320011
-	524976		Windmill	Post Medieval	SN1303400221
-	524995		Limekiln	Post Medieval	SN1302900181



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## **6 ASSESSMENT OF EVIDENCE**

### **6.1 General**

- 6.1.1 Sections 4 and 5 have described the known archaeological resource for the area, as recorded within regional and national databases of historic assets. The following section examines some of the main sources of information that could expand current understanding of the archaeological resource and highlights previously unrecorded historic assets.

### **6.2 Previous Archaeological Work**

- 6.2.1 No intrusive archaeological investigations (excavations, evaluations or watching briefs) have previously been undertaken within the study area.
- 6.2.2 In 1992 Dyfed Archaeological Trust carried out a desk-based assessment associated with the proposed development of the Kiln Park Holiday Centre (James 1992, ERN 30676). Although not looking at the proposed development area in detail, this assessment is an invaluable resource detailing the history of the local area around the mouth of the Ritec, particularly from the 18<sup>th</sup> century onwards, and as such it has formed much of the basis for the historical and archaeological background outlined above.
- 6.2.3 In 2017 further developments at the Kiln Park Holiday Centre prompted the production of another Desk-Based Assessment (Hall & Sambrook 2017, ERN 115079). This also detailed the history of the area, the enclosure of the marsh being of particular relevance, and has been used extensively to inform the archaeological and historical background of the area.
- 6.2.4 In 2003 Dyfed Archaeological Trust carried out monitoring works of beaches in Pembrokeshire in order to establish some baseline information. As part of this survey Tenby South Beach was visited. Notes on various archaeological features were made, but little of direct relevance to the proposed development area was recorded (Crane 2003, ERN 48116).
- 6.2.5 The final piece of archaeological work in the study area relates to the photographic recording of Kinloch Court Hotel in 2016, prior to redevelopment of the building (Poucher 2016, ERN 118132). This is of no relevance to the current proposed development.

### **6.3 Historic Mapping and drawings**

#### *Nautical plan of Tenby Harbour (L Morris) – 1748 (Figure 5)*

- 6.3.1 These early nautical charts do not provide great detail, but depict the area prior to enclosure and reclamation, showing the natural line of the Ritec, hugging the base of the cliffs to the north and east of the marshes. A substantial sand bar had already partly enclosed the mouth of the estuary, likely backed by salt marsh. A fort (PRN 120806/120807) appears to overlook the South Beach to the west of the walled town of Tenby.



**Figure 5:** Extract from Morris plan of 1748, showing Tenby and the mouth of the Ritec. National Library of Wales.

Ordnance Survey original surveyors drawings Tenby (T.Budgen) – 1809 (Figure 6)

- 6.3.2 This map provides a little more detail of the land based topography at the start of the 19<sup>th</sup> century. The river still appears to follow a course hugging the northern and eastern cliff line. The current line of Park Road is marked, which appears to access the riverside just after the bend in the river around The Salterns. Also of note is a small building on the northeast bank of the river as it emerges onto South Beach. There is no indication as to what this structure represents, but it may be approximately in the area of the former mill (PRN 33769). This appears too early to be described as the 'new steam mill' referenced in the 1840s, but may therefore be a forerunner. Alternatively, it may not be a mill building at all, the detail does not allow any definitive conclusions to be drawn.



**Figure 6:** Extract from the Ordnance Survey drawing of 1809. Possible mill site marked.

Admiralty Chart (H.M.Denham) – 1831

- 6.3.3 This chart shows little new of interest within the development area, and in particular no structures are shown around the mouth of the Ritec. It does however show the Owen embankment (PRN 115089), that appears to utilise much of the sand bank upon which the Burrows were forming, before cutting across the line of the river.

Images of Tenby (C. Norris) – 1831-1840 (Figures 7-9)

- 6.3.4 Charles Norris was an artist who produced a number of etchings of Tenby during the early to mid-19<sup>th</sup> century. A collection of his drawings is currently held in Cardiff Central Library, amongst which are a number of labelled drawings that include the embankment (PRN 115089 / 115083), flood gates and surrounding marshland, and are crucial to understanding the layout and appearance of the area around the time the marsh was fully enclosed. Copies of these were examined during the course of this assessment, but these copies were unlabelled and of a reduced quality, and the originals have not been re-examined.
- 6.3.5 Two of the Norris etchings, dating to between 1837 and 1840, show the lower reaches of the marsh, the corn mill (PRN 33769) and the windmill (NPRN 524976) (Figures 7 & 8). These confirm that the steam mill was built and operating by this time, as both show a tall chimney on the northwest side of the main building, one with steam rising from it. These etchings also indicate the regular flooding and marshy conditions that existed in this area until the 1840s at least. The depiction of the upper marsh also demonstrates that flooding was still common beyond the original Owen embankment.
- 6.3.6 Issues with the enclosure are captured in images labelled 'Ruined floodgates' in 1836 and 1837, and the final enclosure of the marshland is also illustrated in one drawing, dated August 18, 1840, labelled 'The Seawall on the South Sands within about 3 days of its completion', and in another dated August 26, 1840, labelled 'Embankment at Tenby Marsh shortly before its second enclosure'. Images of the ruined floodgates have not been examined, and it is unclear where the 'Seawall' is, but the latter presumably refers to the Mathias embankment, later strengthened and adapted for use by the railway. One of the image copies examined is reproduced below (Figure 9), but it is unclear whether this particular image is of the seawall or the embankment.
- 6.3.7 Further images are labelled 'Corner of the Sluice' and 'Near the outlet, 20 Dec. 1834' (repeated in 1835) that presumably capture the water management system on the marsh, but these images have not been examined during the current assessment.





**Figure 7:** Painting by Charles Norris, dated either 1837 or 1840, looking across South Beach and the mouth of the Ritec, with the steam corn mill on the shoreline, and the windmill above.



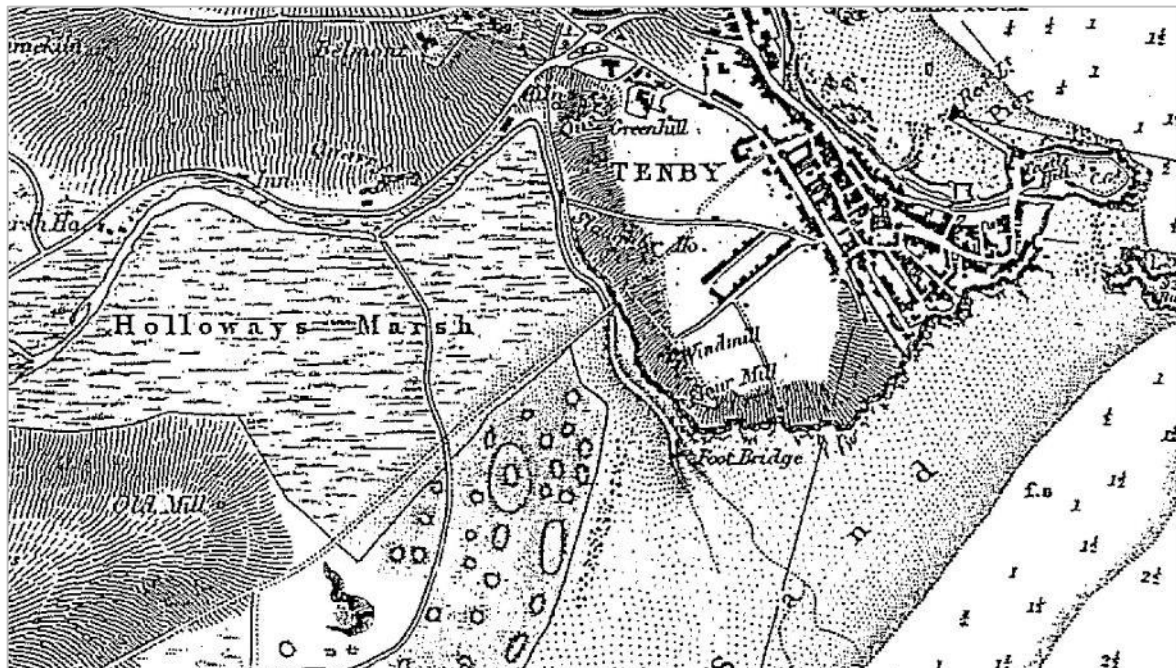
**Figure 8:** Painting by Charles Norris, dated 1837 or 1840, looking down the lower reaches of the Ritec showing flooded marshland with the corn mill at the foot of the slope, and the windmill above.



**Figure 9:** Drawing by Charles Norris dated 1840, of either the seawall at South Beach, or the embankment across the Ritec.

Sea Chart (Capt. Alldridge) – 1856 (Figure 10)

6.3.8 This map depicts the site after the construction of the Mathias embankment in 1840. The embankment is shown from Black Craggs to the west across to the cliffs below Tenby on the east side of the river, carrying a track along it. The land behind the embankment still does not appear to have been fully reclaimed however, as it is still shown as an unenclosed area of 'Holloways Marsh'. Sand dunes have substantially built up against the seaward side of the embankment. The river still follows its original course, and is crossed by a footbridge as it emerges onto the sands of South Beach. Nearby stands the 'flour mill' (PRN 33769), but no other structures are marked at the base of the cliffs, with only the windmill (NPRN 524976) on the cliffs above. Beyond the embankment a slaughter house is marked, with quarries beyond.

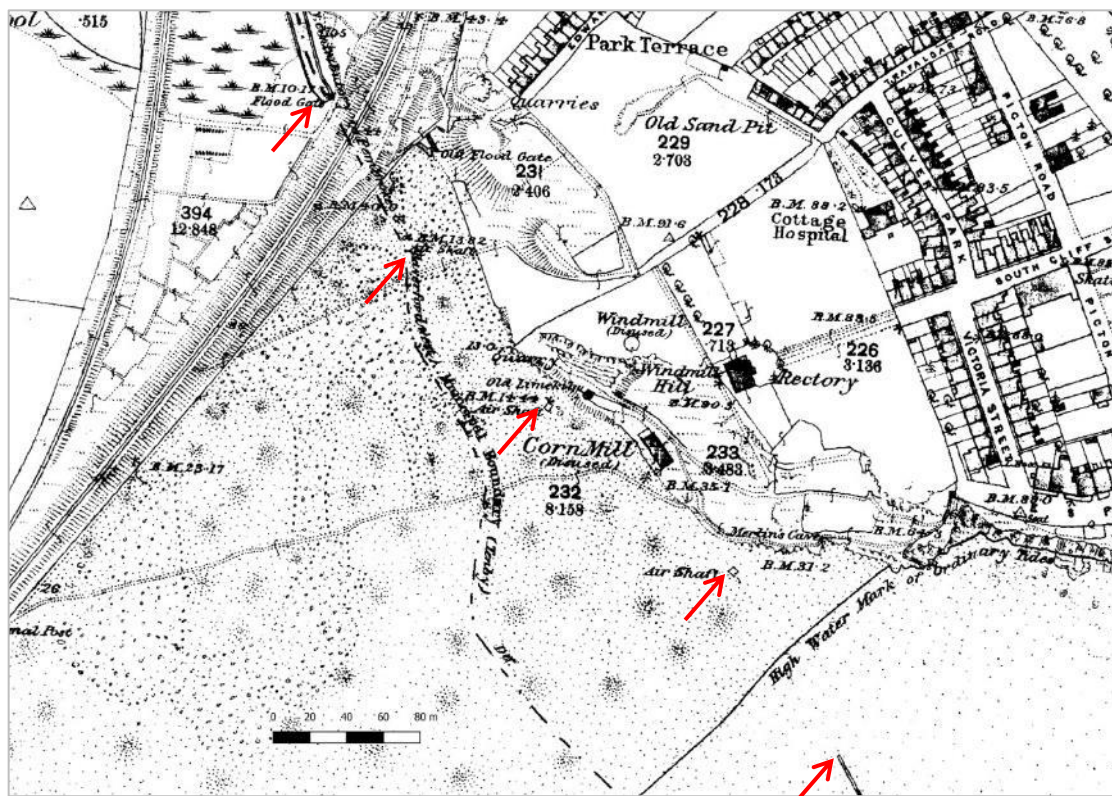


**Figure 10:** Extract from the Alldridge chart of 1856, showing Tenby and the mouth of the Ritec.

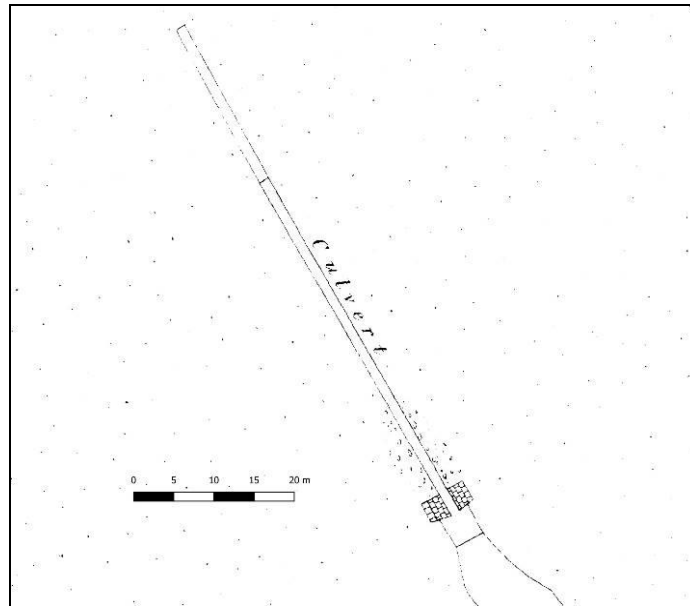


Ordnance Survey 1:500 (and 1:2500) map – 1889 (Figures 11 & 12)

6.3.9 Tenby was mapped in detail by the Ordnance Survey in the later 1880s. This map depicts the line of both the Orielsont embankment and the Owen embankment (PRNs 115089 / 115083), both by this time being re-used as railway embankments (PRN 115092). The river enters a culverted section (PRN 29927) on the northern edge of the current railway embankment, via a flood gate. This takes the line of the river slightly west of its original course; an old disused flood gate can be seen on the south side of the railway embankment, which would have discharged the river along its original course. The line of the culvert is presumably marked by a line of three air shafts (PRN 29928). The first is close to the embankment. The second, larger, airshaft lies in front of the quarry now occupied by a car park. This quarry still appears to be in use at the time of the mapping, but is fronted by a disused limekiln (NPRN 524995), now gone. The windmill (NPRN 524976) stands on the hilltop above the quarry, but this too was disused by this time. Slightly further down river stands the mill (PRN 33769), also disused, but marked as a large rectangular building with a series of buttresses along the riverside face. The final air shaft lies on the edge of the beach, with no further structures in the surrounding area. The outlet of the culvert is marked around the low tide mark, as an open channel with a built structure at the end (Figure 12), indicating the current iron outfall pipe is a later feature.



**Figure 11:** Extract from the 1:2500 Ordnance Survey map of 1889, showing the development area, with the start of the culvert, air shafts and the beach outflow marked.



**Figure 12:** Detail from the 1:500 Ordnance Survey plan of Tenby in 1889, showing the outlet for the culvert at low water.

*Ordnance Survey 1:2500 map (2<sup>nd</sup> edition) – 1907*

6.3.10 The subsequent Ordnance Survey map of 1907 shows little change within the development area. The mill building still stands, but remains disused. The quarry still appears to be in use but the limekilns in front have been removed. The disused windmill on the hill above has been redeveloped with a new long rectangular building standing on the site.

## **6.4 Aerial & Historic Photography**

- 6.4.1 As a popular tourist destination from the mid-19<sup>th</sup> century onwards there are a relatively large number of historic photograph of Tenby and the surrounding area, but only those readily available examples have been examined, including local and regional archives, the Francis Frith website (<https://www.francisfrith.com/tenby>), historic aerial photographs dating from 1940 to 1952, and more recent satellite imagery from 2006 to the present day.
- 6.4.2 There is an early (1890s) photograph of Tenby taken from the Burrows to the south (not reproduced here, see Francis Frith website). This image looks over the sand dunes and shows the quarried hillslope (now housing a car park) and the mill building still standing. The mill was presumably out of use by this time, and seemingly without its adjacent chimney. It stands on a buttressed base, potentially sea-washed. The building appears similar in appearance to one shown on an old postcard of Tenby, entitled 'The Old Ice House' (Figure 13). This is uncertain, as the ice house has not been positively identified and located, but the similarities suggest the old mill building may have been repurposed as an ice house during the later 19<sup>th</sup> century. This may also explain why the structure appears to have survived for some time despite being labelled as 'disused' on Ordnance Survey maps of the late 19<sup>th</sup> and early 20<sup>th</sup> century.





**Figure 13:** Undated postcard labelled 'The old ice house Tenby', potentially showing the former corn mill adjacent to the development site.

6.4.3 Few other images capture the site around the turn of the century, but various images do capture the Shanly Pavilion (PRN 8452), opened in 1929. One of the clearest images is reproduced on the Tenby Historical Society Website (Photo 1). The photograph is undated, but the name of the pavilion is clear on the roof, which would suggest it predates 1937 when the pavilion was sold, and ceased to be known as Shanly's Pavilion. This was a concrete-built building, 6 stories high with a rounded southeast end, fronted by enclosed gardens with a central band stand. The building was demolished in the late 1970s, redeveloped as a car park, pumping station and public conveniences, with the garden area recently redeveloped as a café complex.



**Photo 1:** Undated (but likely 1929 – 1937) aerial photograph of Shanly's Pavilion.  
(<http://www.tenbyhistoricalsociety.org.uk/downloads/shanley.pdf>).

- 6.4.4 An aerial photograph from 1940 (Photo 2) shows the pavilion without the name on the roof. It also captures the elaborate entrance to the pavilion, via an entrance tower built into the hillside and an enclosed walkway across Battery Road. To the southwest of the building (and across the line of the culvert) lies a fenced enclosure, with a scattering of outbuildings within, the function and purpose of which is unclear. A landscaped rectangular area lies to the west, possibly the later tennis courts associated with the pavilion. No evidence of the culvert is visible, but the open line of the river is visible beyond the railway embankment. Of the dwellings that currently line the track between the railway embankment and the pavilion, The Pines, Fairway, Woodfield and Maytree Cottage are all visible by 1940/1. Little change is subsequently noted until 1949/50, when the seaward boundary of the enclosure associated with the pavilion appears to have been rebuilt, possibly enlarged westward, with internal covered seating areas rearranged (Photo 3).



**Photo 2:** RAF aerial photograph of 1940, showing Shanly's/South Beach Pavilion, possible tennis courts to the left, and the open river beyond the railway embankment to the top.



**Photo 3:** RAF aerial photograph of 1951 showing the development area including part of the outfall pipe to the top right.

- 6.4.5 Recent satellite images (Google Earth) first show the site in detail in 2006, by which time the pavilion had been removed, and the current car park and adjacent buildings established. At some point between 2009 and 2018 the new beach front café complex was also developed.

## **6.5 LiDAR**

- 6.5.1 LiDAR data at 1mDTM/DSM is available for the site area along the route of the culvert. No new features of note are visible.

## **6.6 Site Visit (Photos 4-18)**

- 6.6.1 A site visit was initially undertaken on the 9<sup>th</sup> March 2022. Weather conditions were cloudy and windy, although visibility was fair. A subsequent visit was made on the 15<sup>th</sup> March during bright sunny weather. There was open access up to the proposed development area between the railway embankment boundary fence and the beach.
- 6.6.2 The river runs along an open channel adjacent to Quarry Cottage before entering the culvert on the north side of the railway embankment. The inlet was not closely examined.
- 6.6.3 The southern side of the railway embankment is scrub-covered, traversed by the access road to Tenby Golf Club. A footpath runs along the base of the embankment, providing access to the row of dwellings and South Beach car park beyond. A row of manhole covers lies adjacent to the footpath, likely denoting the line of the culvert (Photo 4).





**Photo 4:** View east showing the access hatches to the culvert at the base of the southern side of the railway embankment.

6.6.4 The line of the culvert passes under an area of open ground that fronts these dwellings, comprising maintained lawns and planting areas, with a stand of trees and scrub at the northwest end (Photo 5). Areas of subsidence are visible within the scrub, marking the route of the culvert (Photo 6). These areas are currently fenced off, but no structural element is visible at the surface. To the west lies the maintained lawns of the golf club (Photo 7).



**Photo 5:** View southeast along the row of dwellings to the south of the railway embankment. The line of the culvert runs under the lawned area to the right.



**Photo 6:** View southwest of the area of subsidence towards the northern end of the culvert.



**Photo 7:** View southeast of areas of subsidence along the edge of the golf course (to the right).

6.6.5 Beyond these lawns the route then passes under the South Beach car park, an area of tarmac roads and modern hard standing surfaces (Photo 8). To the northeast lies a former quarry, the steep limestone quarry-face clearly visible, cutting back into the hillside, the base of the quarry now occupied by an extension to the car park (Photo 9). The line of the culvert is marked by a square modern manhole cover (Photo 10).





**Photo 8:** View southwest across the South Beach car park with the scrub-covered sand dunes beyond, and the golf club lawns to the right.



**Photo 9:** View southeast of the former quarry face to the left, with Battery Road climbing the rising ground and the former rectory building overlooking the area.



**Photo 10:** View south along the line of the culvert, marked by the manhole cover in the foreground.

6.6.6 The level of the car park then rises to the south, the culvert presumably now at a greater depth from the ground surface. Along the east side of the car park are a number of single-storey modern structures, housing storage, a sewage pumping station, and public conveniences (Photo 11). At the northeast corner, behind these buildings, the rising ground is fronted by walling, built largely of coursed roughly dressed stone blocks with brick inclusions and concrete block infill (Photo 12). The wall is concrete rendered in places, and also incorporates exposed bedrock in others. Areas of infill and changes in alignments indicate that the wall was not originally constructed as a simple buttress for the rising ground, but presumably represents remnants of the former Shanly's Pavilion. It is possible this includes elements of the former mill site, but no clear evidence of this was identified. Beyond the modern buildings alongside the car park lies a café complex, which includes a variety of buildings and private car park areas, fronted by beach-side walkways to the southeast. The cast iron beacon (PRN 59844), Grade II listed, lies alongside these walkways (Photo 13), as the car park opens out onto the beach (Photo 14). Behind these buildings the ground rises rapidly, traversed by Battery Road. At the top of the rising ground a series of mortared limestone walls define footpaths and potentially mark the site of a former gun battery (PRN 120806-7). The rising ground is then topped by a small enclosed park and seating area, with the former Rectory building on the opposite side of Battery Road.



**Photo 11:** View south across the South Beach car park showing the row of modern building along the left, with Caldey Island visible in the background.



**Photo 12:** View northeast of revetment walling for Battery Road behind the modern buildings, presumably incorporating elements of Shanly's Pavilion.





**Photo 13:** View west of the Grade II listed Festival of Britain beacon, with the entrance to South Beach car park and line of the culvert beyond.



**Photo 14:** View northwest from the beach side of South Beach car park along the line of the culvert, marked by manhole covers in the foreground.

- 6.6.7 On the opposite side of the car park the land rises into scrub-covered sand dunes. The southeast end of the car park opens out onto the sandy beach, with sand clearly accumulating within the car park as well (Photo 15). To the northeast the beach is backed by rocky cliffs, with potential evidence of quarry faces (Photo 16). To the southwest the beach is backed by the scrubby sand dunes. The outlet for the culvert lies close to the low water mark, and was not examined during the site visit. Images of the outlet indicate that the line is marked by a series of concrete blocks (Photo 17), with a buoy marking the end.



**Photo 15:** View northwest along the approximate line of the culvert on south beach, looking towards the car park entrance.



**Photo 16:** View north from the approximate line of the culvert looking towards the main urban area of Tenby, including a number of Grade II listed buildings fronting the cliff top.



**Photo 17:** Image of the concrete blocks marking the piped outlet of the culvert at low tide.



**Photo 18:** View from the approximate line of the culvert towards St Catherine's Island and fort (Scheduled Monument PE450).

## 7 ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL, IMPORTANCE AND SETTING

**Table 4:** Site potential definitions

<b>Archaeological Potential</b>	<b>Definition</b>
<b>High</b>	Known archaeological remains of the period within the site area, or an abundance of remains of the period within the near vicinity
<b>Medium</b>	A number of archaeological remains of the period are present in the vicinity or wider area, and/or the topography or location of the site would be typical for remains of that period
<b>Low</b>	Few sites of a specific period are known in the wider area, or where the topography of the site is unlikely to contain remains of that period. Or where no archaeological records of a certain period are present, but the location of the site is one that would be considered suitable or typical for remains of that period to exist
<b>Negligible</b>	Where there is no evidence for archaeological remains of a certain period to be present and the location/topography is most unlikely to contain remains of that period, or where a site area has already been totally disturbed

**Table 5:** Site importance definitions

<b>Site Importance (SI)</b>	<b>Definition of Site Category</b>
<b>High</b>	Features of national importance - Scheduled Monuments, Listed buildings Grade I and II*, well preserved historic landscapes, registered parks and gardens and historic battlefields
<b>Medium</b>	Non-scheduled sites of regional or county importance. Listed Buildings Grade II, reasonably preserved historic landscapes
<b>Medium / Low</b>	Features of district or local importance but generally common features at a national or regional level
<b>Low</b>	Minor sites or sites so badly damaged that too little now remains to justify their inclusion in a higher grade
<b>Uncertain</b>	Features about which insufficient is known to attribute them to a higher rank, or which cannot be sufficiently accurately located to justify their consideration
<b>Negligible</b>	Where a site area has already been totally disturbed by previous development or natural processes

## **7.1 Potential & importance**

- 7.1.1 The proposed development area lies in a area of some archaeological significance. Topographically the culvert runs through an area that until the mid-19<sup>th</sup> century was a tidal estuary at the mouth of the river and is likely, as long as sea levels have remained around their current level, to have comprised tidal salt marsh with periods of sand dune inundation. The route of the river appears relatively consistent since first mapped in the 18<sup>th</sup> century, but prior to this the course may have varied throughout the estuary. There is the potential therefore for buried waterlogged deposits throughout this area that could preserve important paleo-environmental remains not commonly recovered from archaeological sites.
- 7.1.2 This general area is also unusual in the quantity of Palaeolithic, Mesolithic and Neolithic archaeological remains. Cave sites appear to have been the focus of settlement activity, and therefore it is unlikely that such evidence would exist within the development area, but associated evidence related to estuarine activity, such as fish traps, boats, discarded tools and environmental evidence may exist in the area. There is therefore a Low to Medium potential for such remains in the area, of uncertain importance.
- 7.1.3 Settlement activity appears to increase during the early medieval period. There is a known focus of activity further west and south in the Penally and Longbury Bank areas, but the Ritec is likely to have been a focus of activity and resources, and Tenby may also have been a site of some importance during this period. Tenby was clearly an important settlement throughout much of the medieval period, and although settlement was clearly focussed on the northern side of the limestone outcrop and around the North Beach harbour, the Ritec estuary would have remained a focus of resources and a site of river activity. There is therefore a Medium potential for such remains in the area, of uncertain importance.
- 7.1.4 Several known sites of archaeological importance in the immediate vicinity of the proposed development area date from the post-medieval period. Potentially the earliest is the site of a corn mill (PRN 33769). It may have been in place by the start of the 19<sup>th</sup> century, but was potentially rebuilt or adapted by the 1830s with steam-powered milling machinery. This mill lay alongside the Ritec, on slightly higher ground on the east banks, but would have drawn water from the river in an as yet unidentified manner. It may have been repurposed as an ice house by the later 19<sup>th</sup> century, and was replaced during the 1920s, potentially with the removal of much of the surviving fabric of the building. Due to subsequent redevelopment of the site there is a low potential for associated remains to exist. Such a site is of Medium/Low archaeological importance.
- 7.1.5 Adjacent to the mill site is an area of limestone quarrying (part of PRN 20629). It is not clear when quarrying began here, but it appears to have continued into the early 20<sup>th</sup> century. During its early operations it may have utilised the adjacent river to transport materials in and out of the quarry, although it must have relied on road transport from the mid-19<sup>th</sup> century onwards. Given the degree of subsequent redevelopment in this area there is a low potential for associated remains to extend into the development area, which would be of a low archaeological importance.
- 7.1.6 Enclosure of the marsh around the Ritec estuary began during the early 19<sup>th</sup> century, but was completed in 1840 with the construction of an enclosing embankment (PRNs 115083 / 115089) along the line of the current railway. The embankment was reinforced when it was used to carry the new railway line in 1864 (PRN 115092), replacing a line of the previous year which took a slightly more northerly route. This embankment is intact, and directly

associated with culvert. There is also the potential for remains of the early and mid-19<sup>th</sup> century enclosure banks to survive within the current embankment. This embankment is of Low/Medium archaeological importance.

- 7.1.7 The current line of the culvert (PRN 29927) was probably constructed in association with the work on the railway embankment in 1864, replacing a part channelled/culverted route that ran further to the northeast. A number of air shafts (PRN 29928) were also established at this point. A connecting iron outfall (PRN 30042) to the sea appears to have replaced an earlier built culvert, possibly during the earlier 20<sup>th</sup> century. The shafts are no longer present, any upper remnants likely removed with the establishment of the present car park. The culvert and iron outfall still survive, although these are likely to have been repaired, extended and partly replaced on a number of occasions throughout their 160 year use. The current structure is of low archaeological importance.
- 7.1.8 The final asset of archaeological importance is the remains of Shanly's Pavilion (PRN 8452), opened in 1929 and demolished in 1979. Some structural remains survive at ground level, and it is possible that further evidence of the main building and its associated enclosures and outbuildings survives below ground, although the area has been extensively redeveloped since its demolition. This is likely to result in a low potential for surviving remains within the development area. The site as a whole is important in the recent history and development of Tenby, and would be of Medium archaeological value.

## **7.2 Setting**

- 7.2.1 The guidance provided within *Setting of Historic Assets in Wales* (Cadw 2017) requires that the setting of the monument(s) in question should be defined and analysed to allow the impact of development to be appropriately assessed.
- 7.2.2 The setting of a monument includes 'the surroundings in which it is understood, experienced and appreciated, embracing present and past relationships to the surrounding landscape. Its extent is not fixed and may change as the asset and its surroundings evolve' (Cadw 2017). As such it often extends beyond the physical boundaries of the monument itself. This may include physical elements in its surroundings, such as boundaries and other monuments, relationships with other historic assets and natural features, or associated agricultural, industrial or other surroundings. Less tangible elements are also included, such as function, sensory perceptions, historical, artistic, literary and scenic associations.
- 7.2.3 It is clear however that since the majority of the proposed development work will be below ground with little visible change to the current topography. Moreover the current topography (rising ground to the northeast, high railway embankment to the northwest, raised scrub and sand dunes to the southwest) shelters the site from any extensive views of the areas of construction until it emerges onto the beach side. As such the potential impact to the setting of surrounding designated assets is very limited.
- 7.2.4 In terms of Scheduled Monuments the only site with any connection to the site is Fort St Catherine PE450. This connection is purely a visual one, with views from the fort spreading out over South Beach (Photo 18), incorporating the outlet of the culvert at low tide. This particular view is not considered to be a significant viewpoint from the fort.

- 7.2.5 For Listed Buildings the closest site to the proposed development is that of the Grade II listed Festival of Britain beacon (LB 26328) (Photo 13). The original setting of this structure has clearly changed, as it no longer stands in its original location, and indeed may have moved again in recent years and is now backed by modern development. It now has a less prominent situation (in terms of its function as a beacon) close to the water level, although is a distinctive feature on publically accessible beachside walkways, and is visible from South Beach itself.
- 7.2.6 There are a number of sea front hotels and terraces that share a similarity in setting, the main focus being the views they share looking out to sea, and their visibility as hotels from the South Beach area (Photo 16). These listed buildings include the South Beach Hotel (LB 6151), the Belgrave Hotel (LB 26301), Connaught House (LB 26300), the Giltar Hotel (LB 6150), the Atlantic Hotel (LB 26302) with its cliff terrace (LB 26360), and the general sea front railings and walls (LB 26334). These views would incorporate any outlet remains and potential development activity on South Beach, although as with PE450 these elements of the views are not considered significant.
- 7.2.7 The only listed building with any connection to the site that is not a visual one is the Tenby Railway Station (LB 26424), which has a clear shared history with the enhancement of the embankment and construction of the railway line in 1864, which in turn appear to have a link to the construction of the culvert itself.
- 7.2.8 No links to the setting of any further designated assets have been identified.

## **8 IMPACT ASSESSMENT**

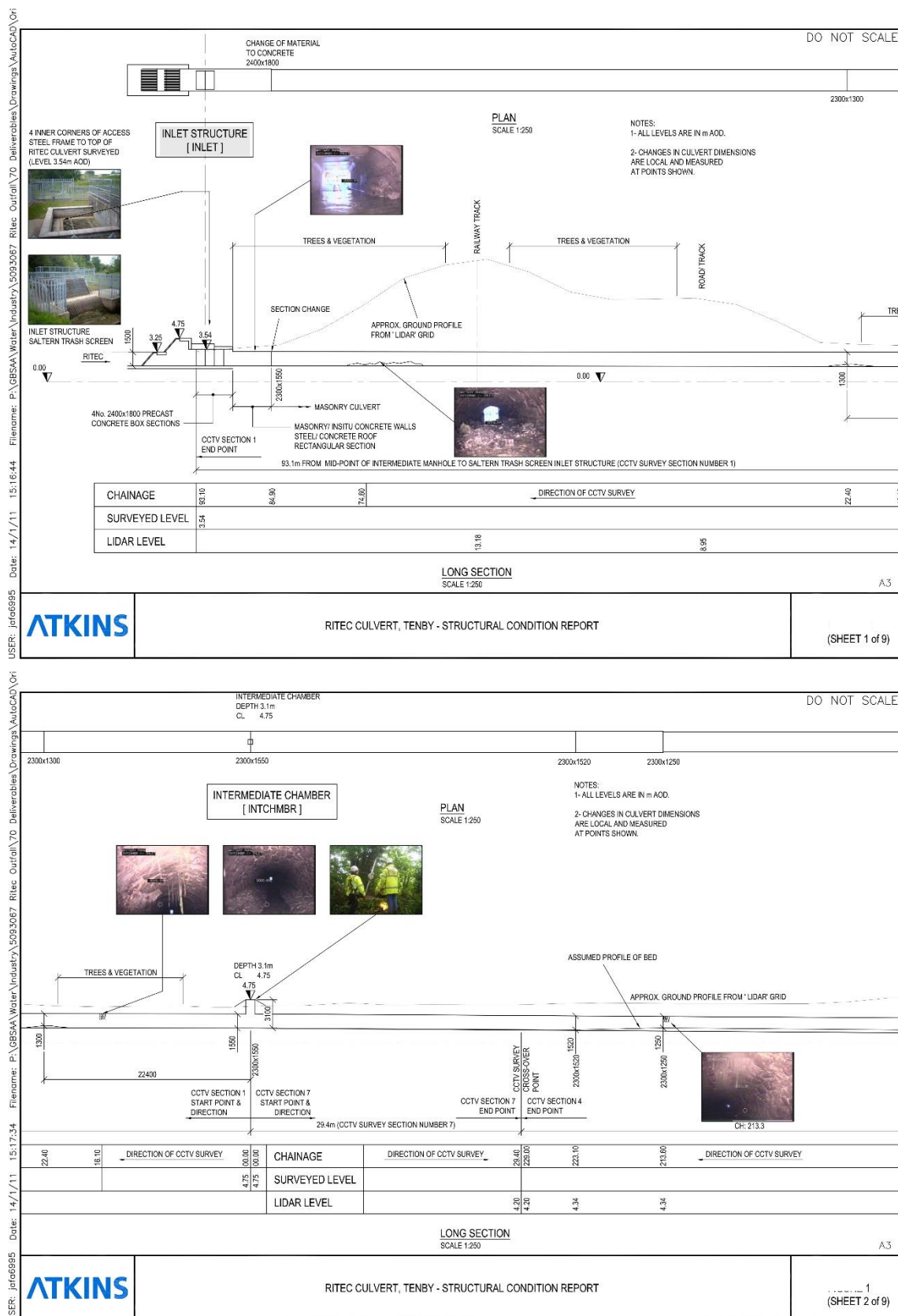
### **8.1 Development details (Figure 13)**

- 8.1.1 The proposed works comprise maintenance activities on the masonry section of the culvert, combined with increased frequency of condition monitoring through annual surveys. The maintenance activities will include internal works to repair defects on the masonry, with surface works limited to the filling of areas of associated subsidence. A structural condition report was carried out by Atkins in 2011, which details the profile of the culvert and includes images from within, this is reproduced in Figure 13.
- 8.1.2 The internal works will comprise the repair of the masonry arch by repointing at locations of missing mortar, and replacing masonry where missing or displaced. Protruding roots will also be removed. Defective mortar will be raked out by hand and joints cleaned, with minimal use of mechanical tools and no pressure water jetting. The mortar will be chosen with the primary aims of retaining the flexibility in the existing structure and to allow safe placement in the confined space of the culvert. Testing of the existing mortar and trial panels will be carried out prior to the final choice of mortar being made. Repair works and mortar application will be carried out by hand.
- 8.1.3 Access to the culvert will be achieved through the existing inlet and access chambers, with no excavation or ground disturbance required for access.
- 8.1.4 Areas of subsidence will be infilled with suitable material to bring the levels up to current surrounding ground levels, finished with topsoil and seeded with grass. No excavations are planned for these areas.
- 8.1.5 The planned works are clearly designed to limit any potential impact beyond works on the culvert itself. The culvert is recorded as an historic asset (PRN 29927) and therefore any change to its construction is a direct impact upon a historic asset.
- 8.1.6 The assessment will be based on the works outlined above, but any changes to the planned works that require ground breaking activity within and around the culvert could have a wider direct impact on surrounding historic assets. Such works may include:
- Demolition and replacement works to elements of the existing culvert
  - Works to enable safe access to the culvert, for example the establishment of access slopes, external shoring or bunds;
  - Enabling works, such as the construction of access roads, compounds, associated services;
  - Surface stripping and levelling, foundation excavations (if required);
  - Any other ground disturbing works
- 8.1.7 Further development in this area also has the potential to generate indirect impacts upon historic assets, by altering elements of the setting as discussed in section 7.2.

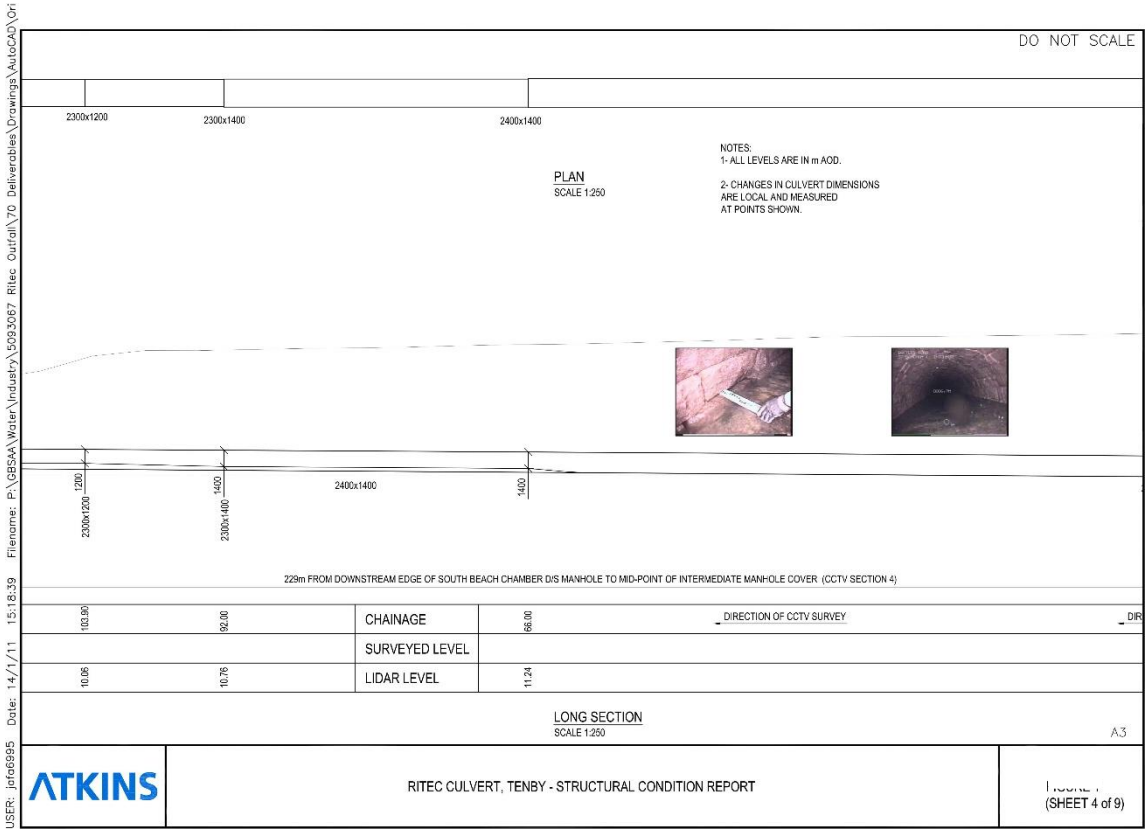
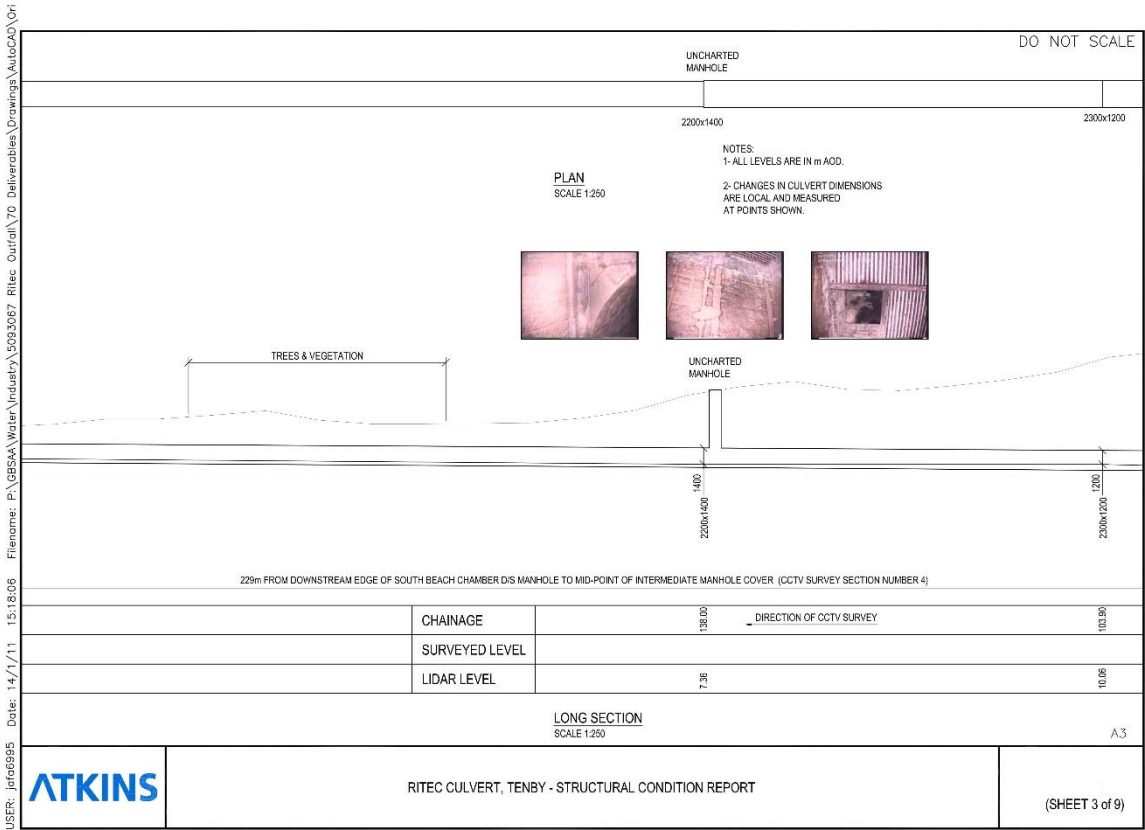


# Ritec Culvert Repairs, Tenby, Pembs: Historic Environment Desk-Based Assessment

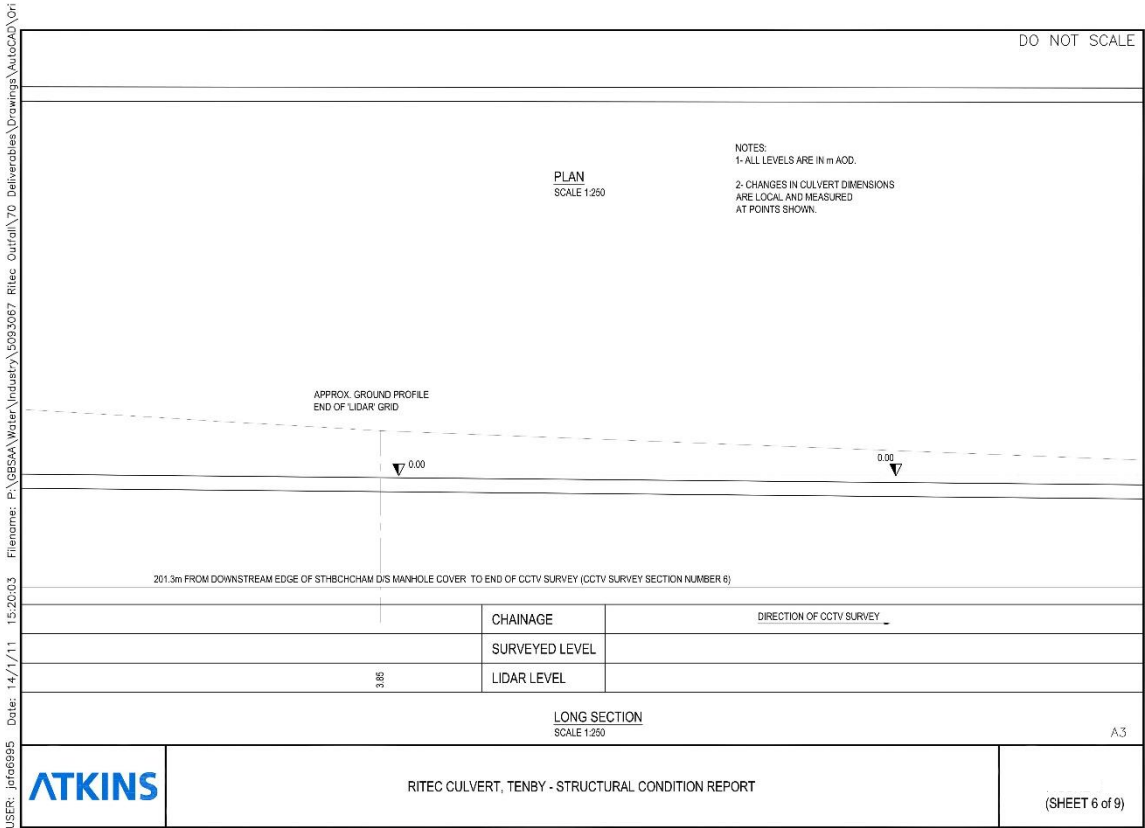
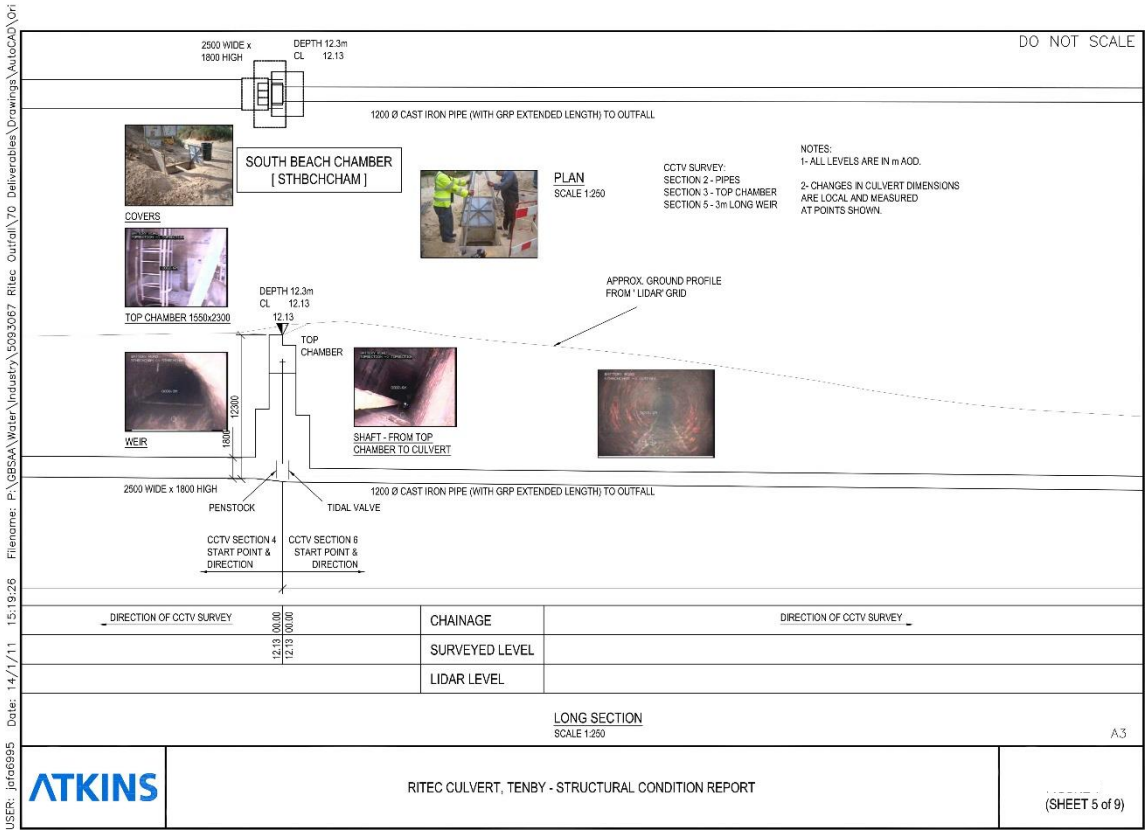
**Figure 13:** The structural condition report of the Ritec culvert, as produced by Atkins in 2011. Not reproduced to scale.



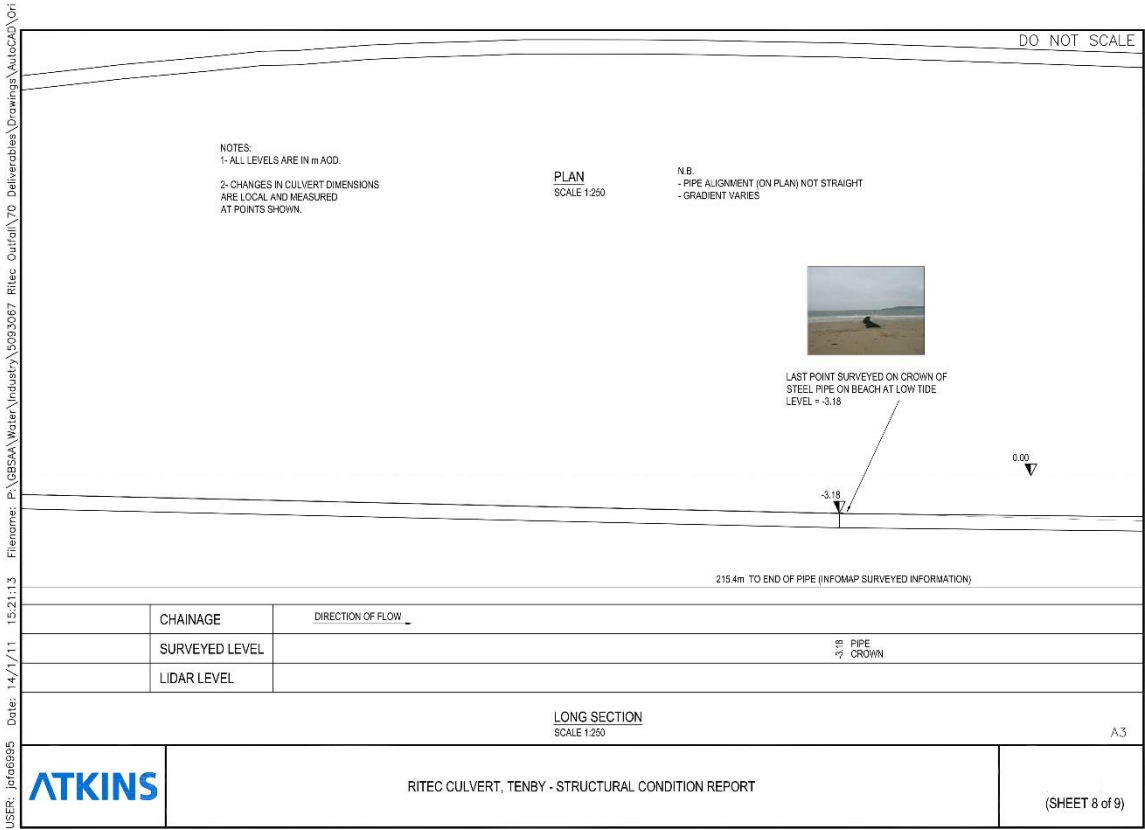
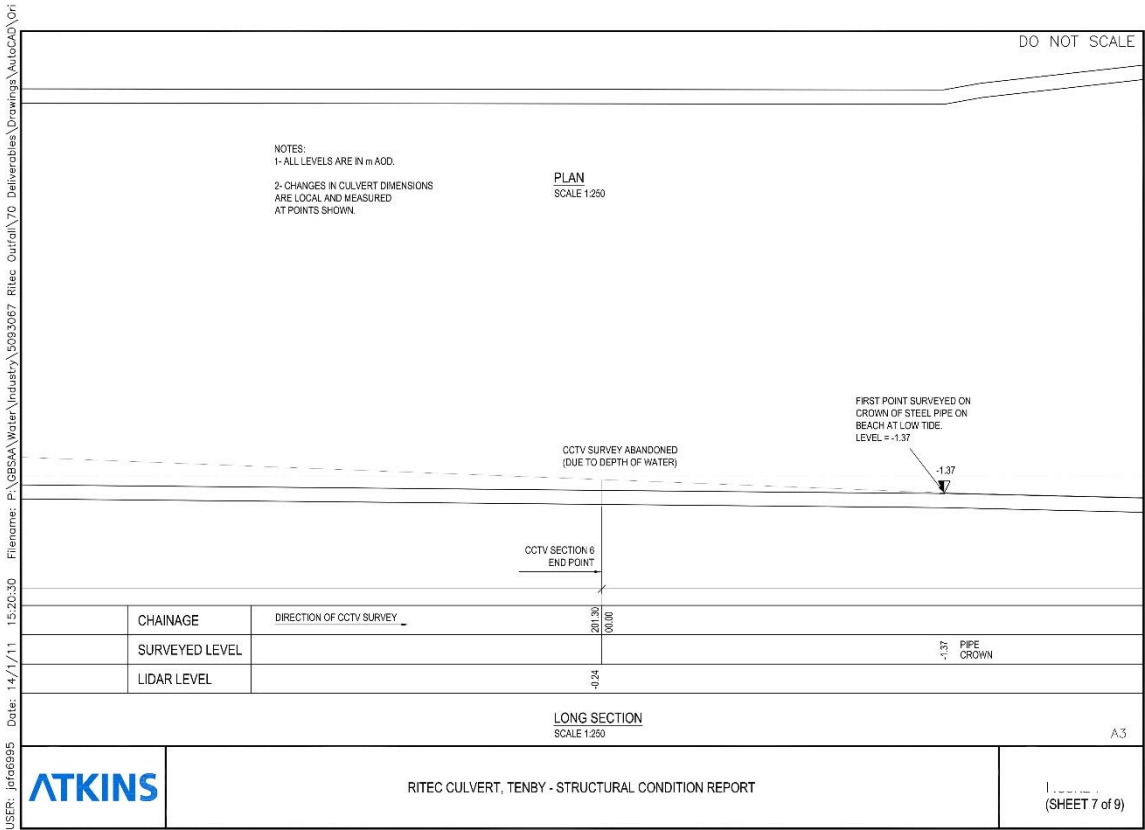
Ritec Culvert Repairs, Tenby, Pembs:  
Historic Environment Desk-Based Assessment



Ritec Culvert Repairs, Tenby, Pembs:  
Historic Environment Desk-Based Assessment



Ritec Culvert Repairs, Tenby, Pembs:  
Historic Environment Desk-Based Assessment



DO NOT SCALE

NOTES:  
1- ALL LEVELS ARE IN m AOD.  
2- CHANGES IN CULVERT DIMENSIONS  
ARE LOCAL AND MEASURED  
AT POINTS SHOWN.

PLAN  
SCALE 1:250

OUTFALL

END OF PIPE (SOFFIT  
AND INVERT LEVELS)

CONCRETE PROTECTION TO  
OUTFALL PIPE SHOWN ONLY  
(FINAL SEGMENT SHOWN FOR  
CLARITY ONLY)

0.00

-4.05 -4.00 -4.27 -5.00

6.07

BED  
LEVEL

PIPE  
END

-4.05 -4.00 -4.27 -5.00

6.07

BED  
LEVEL

	CHAINAGE	DIRECTION OF FLOW
	SURVEYED LEVEL	
	LIDAR LEVEL	

LONG SECTION  
SCALE 1:250

A3

1  
(SHEET 9 of 9)

8.2.1 The criteria for the assessment of impacts on historic assets is based on The Department for Transport 'Transport Analysis Guidance' (TAG), Unit A3 'Environmental Impact Appraisal: Section 8 Impacts on the Historic Environment', of May 2019, with additional information based on professional judgement. In addition however, the guidance provided in the Setting of Historic Assets in Wales (Cadw 2017) has been utilised.

8.2.2 The TAG criteria divides the impacts into seven categories, ranging from Large Adverse (negative), Moderate Adverse (negative), Slight Adverse (negative), to Neutral, and then on to Slight Beneficial (positive), Moderate Beneficial (positive) and Large Beneficial (positive).

8.3.1 Repair works will unavoidably have a physical impact on the culvert (PRN 29927) as the structure itself is the historic asset. The works will include the replacement of some masonry and mortar, but the general appearance and function of the culvert will remain unchanged, the repair works appear limited in scope, no new access points are being created, and other than areas of mortar repair and the replacement of fallen or broken masonry no new materials will be introduced into the structure. There is the potential for these works to have a Slight Adverse impact upon the historic structure if the use of modern materials is extensive, however these works will ensure the continued function and existence of the culvert, and allow for further recoding of the structure, which will have a Slight Beneficial impact. Overall therefore these works are considered to have a Neutral impact.

- 8.3.2 A variety of specific historic assets have been identified in the immediate vicinity of the culvert, these include a corn mill (PRN 33769), limestone quarry (part of PRN 20629), embankment (PRN 115083 / 115089), railway line (PRN 115092), air shafts (PRN 29928), iron outfall (PRN 30042) and Pavilion (PRN 8452). Currently the proposed works will not include ground disturbing activity beyond the culvert itself and the infill of areas of subsidence. As a result the proposed works will have a Neutral impact upon these assets.
- 8.3.3 A general potential for archaeological remains, including important paleo-environmental and water-logged material, has been highlighted, with particular focus on the Palaeolithic, Mesolithic, Neolithic, early medieval and medieval periods. Again however, the proposed works will not result in a physical impact beyond the culvert and areas of subsidence, therefore the proposed works will have a Neutral impact upon these assets.
- 8.3.4 The historic assets outlined above do however highlight the significant archaeological potential of the local area. Therefore, a potentially significant physical impact upon a number of historic assets will arise should development plans change, requiring the need for ground-disturbing activities around the culvert itself. Similarly, given the potential for water-logged deposits, any changes to the local hydrology could also have a significant impact upon historic assets. As stated however, no such plans are currently being considered.

#### **8.4 Impacts to the Settings of Surrounding Designated Features**

- 8.4.1 The definition of setting, how it contributes to the significance of a historic asset, and why it is important are outlined in *Setting of Historic Assets in Wales* (Welsh Government 2017a; available online) as follows:

*The setting of a historic asset includes the surroundings in which it is understood, experienced and appreciated, embracing present and past relationships to the surrounding landscape. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive, negative or neutral contribution to the significance of an asset.*

- 8.4.2 The main elements of the setting of potentially affected sites are described in section 7.2. The planned works however will not create any change in the settings of the assets outlined in that section, and therefore the impact upon those assets will be Neutral.



## **9 CONCLUSIONS**

### **9.1 Archaeological potential and impact assessment**

- 9.1.1 The proposed development will have a direct physical impact upon the historic asset of the culvert (PRN 29927), a 19<sup>th</sup> century masonry structure. This structure is likely to have been repaired and potentially extended throughout its 160 year existence, and is considered to be a site of Low archaeological value. Proposed repair works may potentially have a slight adverse impact, but are limited in scope, and will result in a slight beneficial impact upon the continued existence and use of the asset, which overall is considered to be a Neutral impact.
- 9.1.2 The assessment has identified air shafts (PRN 29928) and an iron outfall (PRN 30042) associated with the culvert, of Low archaeological importance. In the immediate vicinity lies the site of a 19<sup>th</sup> century quarry (PRN 20629) of Low archaeological importance, a corn mill (PRN 33769) and series of 19<sup>th</sup> century embankments (PRNs 115083, 115089 & 115092) of Low to Medium archaeological importance, and a 20<sup>th</sup> century pavilion (PRN 8452) of Medium archaeological importance. The proposed works however should have a Neutral impact upon these assets.
- 9.1.3 A general archaeological potential for Palaeolithic, Mesolithic, Neolithic, early medieval and medieval archaeological remains has been identified, of uncertain archaeological importance, but potentially including important paleo-environmental and waterlogged remains. The proposed works however should have a Neutral impact upon these assets.
- 9.1.4 The various assets identified in the vicinity of the site indicate that should development plans change, requiring ground-disturbing works around the culvert, or changes to the local hydrology, then the potential impact on the archaeological resource could increase significantly.
- 9.1.5 Impacts to setting of surrounding designated historic assets were examined, but no impacts were identified.

### **9.2 Mitigation**

- 9.2.1 The culvert is an historic asset (PRN 29927), and therefore consideration should be given to the choice of materials used in the repair work, such as reusing suitable masonry, or replacing within similar masonry, and mortar that is in keeping with the traditional mortar used in the structure (if suitable for the required repairs).
- 9.2.2 Given the general neutral impact upon the historic assets no further archaeological mitigation is likely to be required on the proposed works. However, the works do provide the opportunity to produce an up-to-date visual record of the culvert structure, and it is recommended that a photographic record of the works be maintained by the site contractor and subsequently submitted to the regional Historic Environment Record.

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