Pembroke Dock Infrastructure

Design & Access Statement

February 2020
(v4)

Port of Milford Haven

rps MAKING COMPLEX EASY

2 Callaghan Square,
Cardiff,
CF10 5AZ

\04 JOBS\01 OPEN JOBS\JPW11xx\JPW1115 - PEMBROKE DOCK MARINE\5. Reports\1. Draft Report\2. DAS (V4)

Project Team:

Port of Milford Haven

- Urban Design
- Planning
- Architecture
- Ecology
- Landscape and Visual Assessment
- Archaeology & Built Heritage
- Hydrology & Flood Risk
- Marine Environment
- Noise & Vibration
- Ground Conditions

Contents

Introduction

The proposals include demolition, part demolition and infill, erection of buildings, modification of slipways and ancillary development at Pembroke Port, Pembroke Dock, Pembrokeshire.

Pembroke Port is located at the north-western edge of the settlement of Pembroke Dock (grid reference: SM958037, X [Easting]: 195835 and Y [Northing]: 203799) in the town of Pembroke Dock in the south of Pembrokeshire on the southern side of the Milford Haven Waterway. The application site, referred to hereafter as 'the site', comprises approximately 11.1 hectares of land within the operational Pembroke Port.

This document intends to inform and demonstrate the design principles behind the proposed development and to establish the parameters for development. It should be read in conjunction with the application plans and supporting documents.

This Design and Access Statement has been prepared in accordance with:

- The Town and Country Planning (Development Management Procedure) (Wales) Order 2012 (as amended) ('DMPWO');
- Planning Policy Wales, Edition 10, published December 2018 ('PPW');
- Technical Advice Note 12: Design, published March 2016 ('TAN 12'); and
- Design and Access Statements in Wales: Why, What and How, published June 2017.

Consideration has also been given to the relevant design and access policies within the Pembrokeshire Local Development Plan (LDP), adopted February 2013.

The Town and Country Planning (Development Management Procedure) (Wales) Order 2012 (as amended)

The DMPWO sets out that, as a minimum, the DAS must:

- Explain the design principles and concepts that have been applied to the development;
- Demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account;
- Explain the policy or approach adopted as to access, and how policies relating to access in the development plan have been taken into account; and
- Explain how any specific issues which might affect access to the development have been addressed.

For applications for outline planning permission, the DMPWO Article 3 also states where matters of layout, scale and access are reserved the application must state:

- the approximate location of buildings, routes and open spaces included in the development proposed;
- the upper and lower limit for the height, width and length of each building included in the development proposed; and
- the area or areas where access points to the development proposed will be situated.

The above are known as the 'Parameters' and these are set out in this DAS also.

Design Objectives of PPW and TAN 12

PPW and TAN 12 set out the Welsh Government's objectives for sustainable development and good design. All development schemes submitted in Wales need to demonstrate that they accord with any relevant design objectives.

Planning Policy Wales Edition 10, December 2018

PPW emphasises 'placemaking' and defines good design at paragraph 3.3 as:
"Design is not just about the architecture of a building but the relationship between all elements of the natural and built environment and between people and places. To achieve sustainable development, design must go beyond aesthetics and include the social, economic, environmental, cultural aspects of the development, including how space is used, how buildings and the public realm support this use, as well as its construction, operation, management, and its relationship with the surroundings area."

PPW emphasises that:
"Design is an inclusive process, which can raise public aspirations, reinforce civic pride and create a sense of place and help shape its future. For those proposing new development, early engagement can help to secure public acceptance of new development. Meeting the objectives of good design should be the aim of all those involved in the development process and applied to all development proposals, at all scales."

PPW Figure 7 identifies the objectives of good design as follows:

1. *Ensuring ease of access for all;*
2. *Sustaining or enhancing local character:*
   a. *Promoting legible development;*
   b. *a successful relationship between public and private space;*
   c. *quality, choice and variety;*
   d. *innovative design;*
3. *Ensuring attractive, safe public spaces / security through natural surveillance;*
4. *Achieving efficient use and protection of natural resources / enhancing biodiversity / designing for change;*
5. *Promoting sustainable means of travel.*

The above is achieved through appraising context and considering:

1. Access;
2. Character;
3. Community Safety;
4. Environmental Sustainability; and
5. Movement.

Technical Advice Note 12: Design, March 2016

TAN 12 paragraph 6.17 states that a DAS is a statutory requirement for certain applications for planning permission.

TAN 12 explains that a DAS must explain the design principles and concepts that have been applied to the development in relation to the following aspects:

- *Environmental sustainability;*
- *Movement to, from and within the development;*
- *Character (including amount, layout, scale, appearance and landscaping); and*
- *Community Safety.*

The DAS must also:

- *Demonstrate the steps taken to appraise the physical, social, economic and policy context of the development; and*
- *Explain how the design of the development takes that context into account in relation to its proposed use and each of the aspects specified above.*

Vision

The vision is to create a centre of excellence that will provide a significant contribution to the £1.3 Bn Swansea Bay City Deal (SBCD) capable of meeting the needs of the modern blue economy, meaning the sustainable use of ocean resources for economic growth, improved livelihoods and jobs and ocean ecosystem health. This will involve the intensive use of existing land side areas of the dock for fabrication, repair and servicing of boats, renewable energy devices, transporting cargo and other works requiring marine access, served by an appropriately structured highly flexible enlarged slipway, creating a flexible and efficient Port-related office, industrial, warehousing and distribution, and ancillary area.

Pembroke Port, Irish Ferries

The Site

The site is placed within the operational Pembroke Port, located along the Milford Haven Waterway which is an integral part of Britain's oil and gas industry and one of the busiest ports in the UK. It also forms part of the town of Pembroke Dock along its northern shoreline and approximately 900m from the shoreline of the settlement of Neyland across the waterway to the north. The site lies predominantly within the western part of the Port and includes land at the quayside on the northern edge of the Port and within the waterway beyond the quayside, as well as land to the south. It is broadly 'L-shaped' and forms the westernmost third of the Port encompassing most of the Gate 4 area.

View towards Pembroke Port from Neyland

Pembroke Port and Ferry terminal

Summary of the Design Proposals

The maximum design scenario of the visible elements of the Proposed Development as shown on Figure JPW1115-04: Indicative Proposed Masterplan are summarised in Table 1 below:

Table 1: Summary of Proposed Development and Parameters

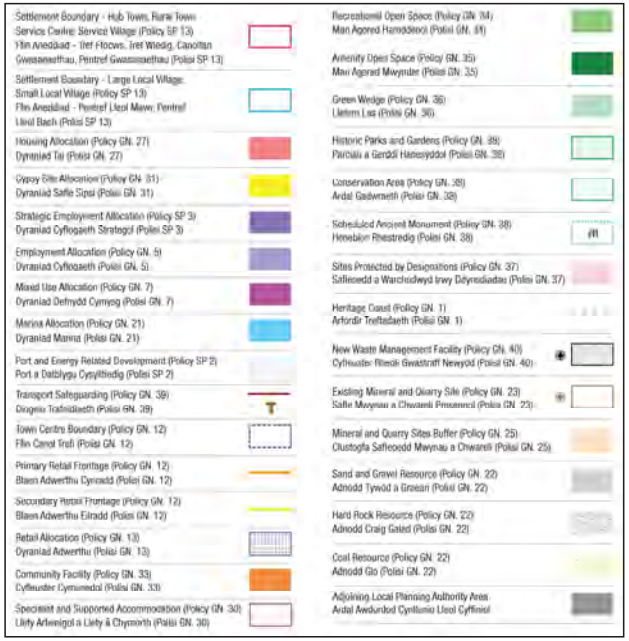
Building or Area	Use	Maximum Footprint (sq m)	Maximum Length and Width (m)	Minimum Length and Width (m)	Maximum Height (m)	Minimum Height (m)
Building A	Fabrication	11,900	170 x 75	100 x 50	40	20
Building B	Repair and Fabrication	4,900	75 x 65	50 x 40	40	12
Building C	Light Assembly	2,500	129 x 20	80 x 15	10	8
Area C1	Light Assembly and Maintenance External Storage and Parking	5,000	N/A	N/A	N/A	N/A
Area D	Open Batching Plant and Storage Area	12,937	N/A	N/A	N/A	N/A
Area E1	Employee Car Park	3,050	N/A	N/A	N/A	N/A
Area E2	Employee Car Park	4,900	N/A	N/A	N/A	N/A
Area F1	External Multi Use Laydown and Final Assembly Area	8,100	N/A	N/A	N/A	N/A
Area F2	External Processing and Multi Use Laydown and Assembly Area	4,850	N/A	N/A	N/A	N/A
Area J	Extended Slipway and Transition Area	13,100	N/A	N/A	N/A	N/A

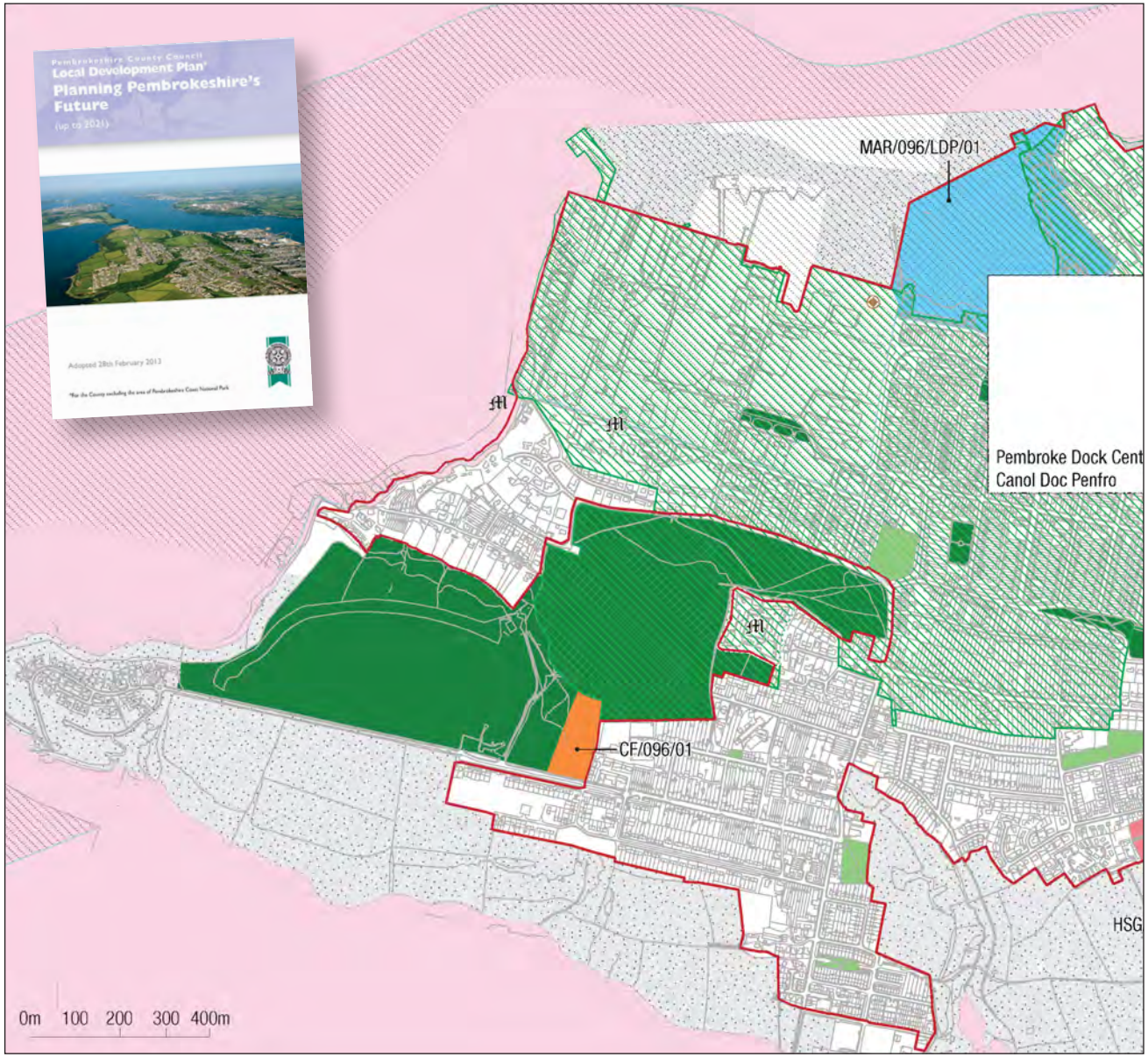
The main visible components of the Proposed Development likely to create impact on the local context are **Building A, Building B, Building C** and **Area J**.

Planning Context

The Pembrokeshire Local Development Plan (LDP) was adopted February 2013. The LDP Proposals Map identifies the site as within the settlement boundary of Pembroke Dock (Policy SP 13), within a Conservation Area (Policy GN.38) and designated for Port and Energy Related Development (Policy SP 2), including the foreshore. Hard Rock Resource (Policy GN.22) and an Existing Mineral and Quarry Site (Policy GN.23) are also designated within the wider port area.

Two Scheduled Ancient Monuments (SAMs) are located near the southern and south-western perimeter of the site (Policy GN.38) together with an area of Amenity Open Space (Policy GN.35) to the south east along Meyrick Owen Way. The Milford Haven Waterway, some 135m to the north of the site at the nearest point, is designated as a Special Area of Conservation (SAC) (Policy GN.37).



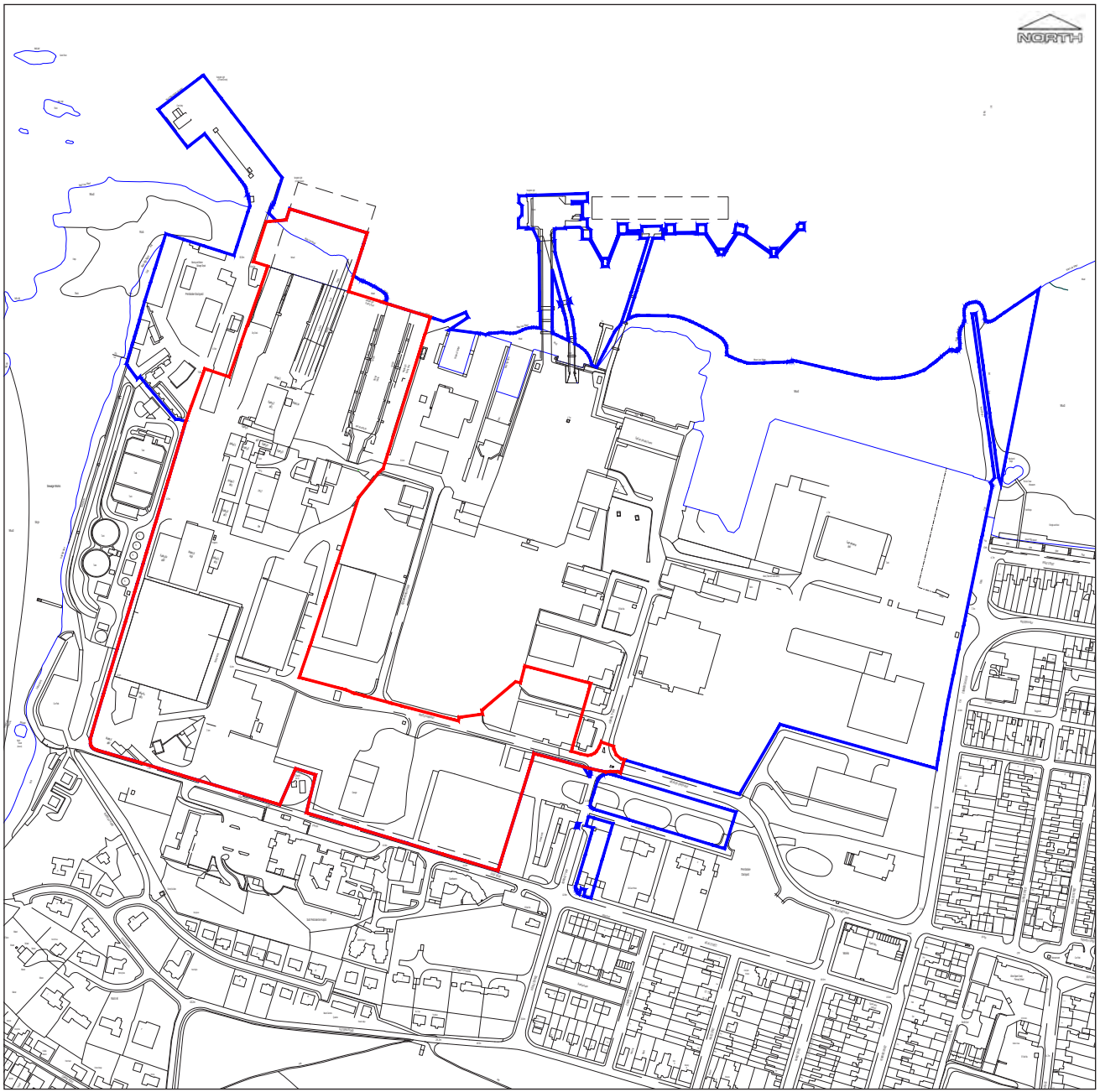


Extract from Pembrokeshire Local Development Plan, Pembroke Dock Proposals Map (February 2013)

SITE CONTEXT

Site Location

The site lies within the operational Port in the settlement of Pembroke Dock on the Milford Haven Waterway along its northern shoreline and approximately 900m from the shoreline of the settlement of Neyland across the waterway to the north.



Land in Ownership of Milford Haven Port Authority

Site Boundary

Settlements and Built Form

The site lies within the 19th century naval dockyard and grid-pattern planned town of Pembroke Dock which comprises a mix of large-scale commercial Port buildings as well as many 19th century worker and town houses, with 20th century housing, light industrial development on the outskirts of the town. The large scale liquified natural gas (LNG) refinery and gas/oil storage tanks, the power station and other energy related development including the wind turbines form elevated and visually prominent permanent elements in the local landscape beyond the Port towards the open sea.

View towards Front Street and Grade II Listed Dockyard Walls, Pembroke Dock

Access and Movement Network

The existing access is via Meyrick Owen Way to Gate 4 and Admiralty Way roundabout, with the commercial vehicles accessing via Admiralty Way to Gate 1 and ferry passengers for the Pembroke Dock Ferry Terminal Area using White Farm Way.

Whites Farm Way, Pembroke Dock

SITE ANALYSIS

Topography

Made ground exists across the site with an approximate thickness ranging from 0.2 to 7.9m below ground level. The majority of the surface covering within the site is concrete hardstanding which is in relatively good condition. Regarding topography, the site is relatively flat although it slopes marginally towards the west, from 8.1m AOD along the eastern extent of the site to the lowest point of 6.0m AOD along the western boundary.

Landscape and Ecology

The site lies within an urban context and comprises made up ground, a collection of buildings surrounding by large sweeps of hard standing made up of concrete and asphalt and compacted stone surfaced ground, all characteristics typical of a functional port. There are some localised areas of scrub, grassland, woodland, individual trees and ruderal habitats. A few areas of revegetating previously disturbed ground that qualify open mosaic habitat which is a habitat of principle conservation in Wales. There is a summer day roost containing common pipistrelle bats present on the site.

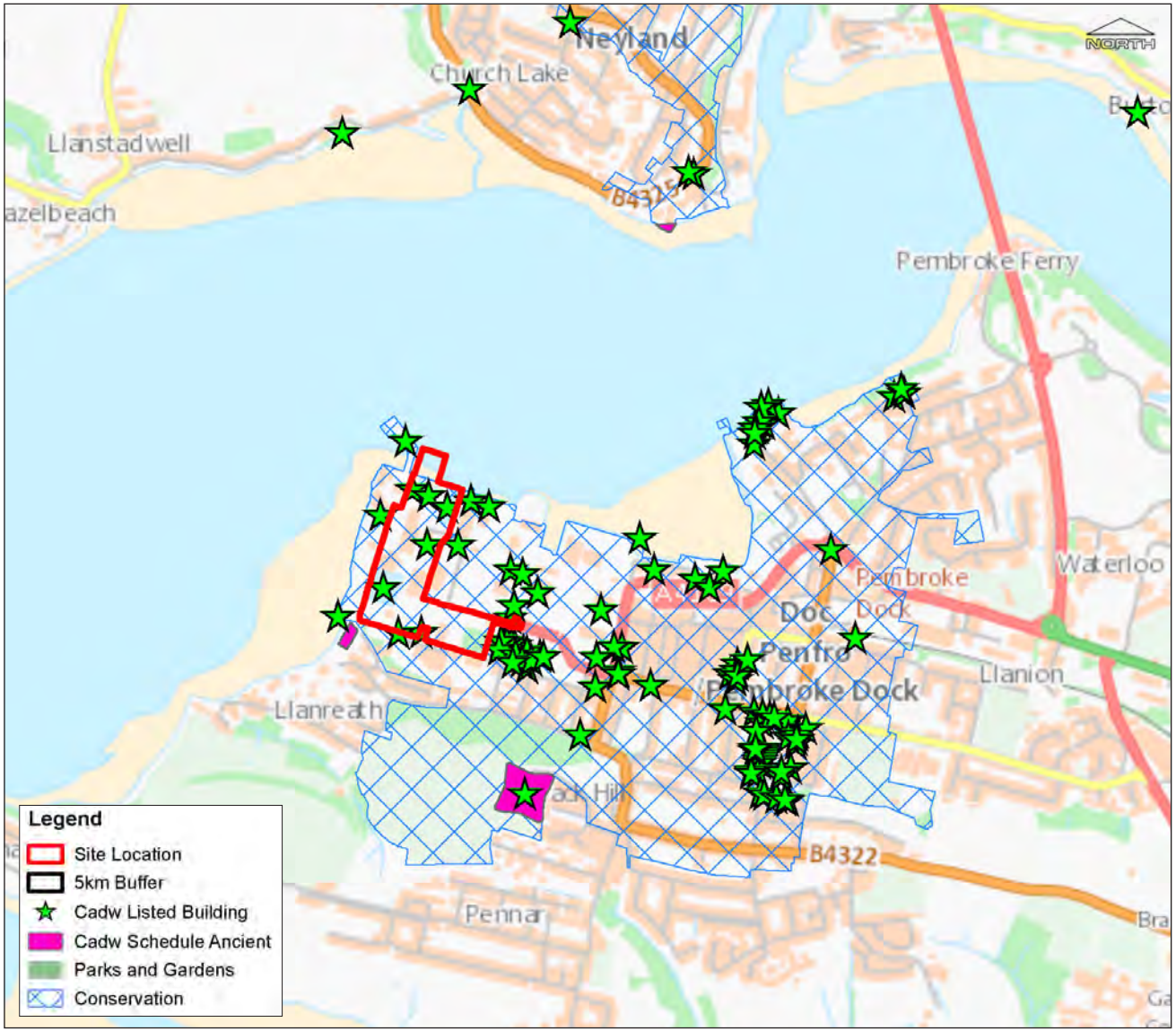
Heritage and Listed Buildings

The site lies within the Pembroke Dock Conservation Area and contains several larger and smaller modern buildings in addition to six listed buildings (or structures) as follows:

- Grade II* former Graving Dock including bollards and capstans;
- Grade II Building Slip No 1;
- Grade II Building Slip No 2;
- Grade II former Timber Pond (also known as the Pickling Pond);
- Grade II former Foremen's Office (currently in third party ownership but intended to become part of the scheme); and
- Grade II Dockyard Walls.

Other buildings and structures within the development site are not designated.

There are several other designated historic assets within the former naval dockyard but outside the development site, including a Grade I listed medieval tower (also a Scheduled Monument), several Grade II* listed Georgian buildings, and two large hangars for flying boats built by the Air Ministry just before the Second World War, both of which are listed at Grade II. Outside the former naval dockyard are heritage assets associated with the defence of this important facility, including two offshore gun platforms (also referred to as Martello towers), a large defensible barracks and two bomb stores of Second World War date.



Constraints and Opportunities

An analysis of the site and surrounding context has identified a number of key constraints and opportunities that need to be incorporated into the development proposals.

Location

Pembrokeshire has the highest concentration of wave resource in Wales equating to an indicative capacity of up to 5.6 GW providing a significant opportunity for development of the industry while it also has excellent wind resources in deep water offshore locations. In addition, Pembrokeshire and the Welsh coast has an abundant tidal range resource.

The site lies within an underutilised largely brownfield area of an existing operational Port. The proposed development will intensify the use of land side areas for fabrication, repair and servicing of boats, renewable energy devices, transporting cargo and other works requiring marine access, served by an appropriately structured highly flexible enlarged slipway.

The site's location relative to maritime energy resources and its access to deep water together with co-location with existing port facilities and operations represents a clear beneficial opportunity.

Topography

The site is relatively flat although it slopes marginally towards the west, from 8.1m AOD along the eastern extent of the site to the lowest point of 6.0m AOD along the western boundary. The majority of the surface covering is concrete hardstanding which is in relatively good condition.

The presence of relatively flat land-side port areas in proximity to deep water presents a great opportunity to satisfy the operational requirements of marine energy devices manufacturers.

Landscape

The site does not lie within any statutory designations. The site is already an operational Port with large commercial buildings and infrastructure forming common elements within the landscape context.

Access

Access for vehicles can be easily achieved from two existing access points as follows:

- Primary access via Whites Farm Way and Meyrick Owen Way (Gate 4); and,
- Secondary accesses via Admiralty Way and Gate 1 off Front Street (Gate 1).

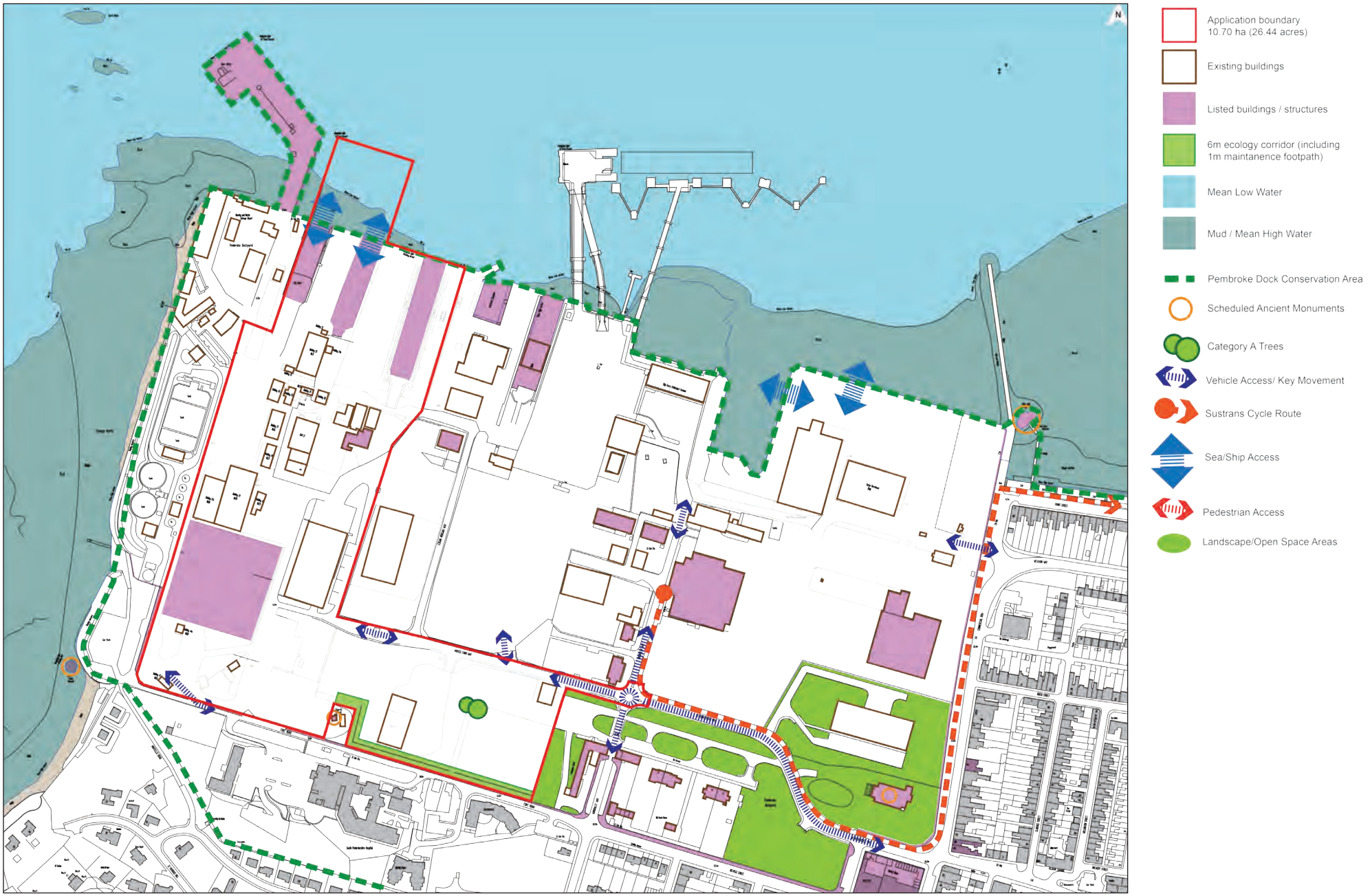
There is the opportunity to incorporate the access for Mainstay Marine Solutions operation into the Gate 4 access arrangements rather than having its own access as at present. This presents an opportunity to contribute to the efficiency of the proposed layout. There is an opportunity to create better walking and cycling connections to the local network with the provision of secure covered cycle parking to encourage the use of sustainable, active travel as well as a pedestrian/cycle crossing across Meyrick Owen Way in the vicinity of the primary vehicle access to the site.

Heritage

There is the opportunity to preserve and enhance a number of the existing important heritage assets that are present on the site as part of the development proposals.

Ecology

The site comprises made up ground, a collection of buildings surrounding by large sweeps of hard standing with some localised areas of scrub, grassland, woodland, individual trees and ruderal habitats which will be retained where possible. There is the opportunity to improve and enhance the existing habitat for common pipistrelle bats present on the site by creating an ecological corridor.


N
Application boundary
10.70 ha (26.44 acres)
Existing buildings
Listed buildings / structures
6m ecology corridor (including
1m maintanence footpath)
Mean Low Water
Mud / Mean High Water
Pembroke Dock Conservation Area
Scheduled Ancient Monuments
Category A Trees
Vehicle Access/ Key Movement
Sustrans Cycle Route
Sea/Ship Access
Pedestrian Access
Landscape/Open Space Areas

Interpretation

The brief and vision for the site within the operational Port is to intensify the use of land side areas for fabrication, repair and servicing of boats, renewable energy devices, transporting cargo and other works requiring marine access, served by an appropriately structured highly flexible enlarged slipway. The co-location represents a clear mutually beneficial opportunity.

Having regard to the planning history, current operational uses as well as the historical context of the site and its surroundings, the following design principles have been applied to the development proposals as follows:

- Land use and development of scale/height and capacity to accommodate the operational needs in an architectural style and appearance sensitive to the maritime context.
- Improvements in movement an access at Gate 4 and circulation both within the site and improved vehicle connections to the settlement of Pembroke Dock.
- Creation of better walking and cycling connections to the local network with the provision of secure covered cycle parking to encourage the use of sustainable, active travel as well as a pedestrian/cycle crossing across Meyrick Owen Way in the vicinity of the primary vehicle access to the site.
- Implementation of sustainable management of surface water reducing future flood risk to the site and its surroundings.
- Creation of a public realm encouraging, legibility and increased public activity in the external environment.
- Creation of an ecological corridor retaining and enhancing the existing ecological value and existing protected species present on the site.
- Consideration of the heritage value of the existing historical structures and their preservation as much as possible with no direct losses of any statutorily designated heritage asset.

DESIGN DEVELOPMENT

Design Principles

The establishment of the sites opportunities and constraints allows for a series of design principles to be established. These principles will be carried through and form the framework of the proposed scheme.

Design Principle 1 - Land Use

The following land uses and buildings shall be accommodated within the proposed development:

Building or Area	Use	Maximum Footprint (sq m)	Maximum Length and Width (m)	Minimum Length and Width (m)	Maximum Height (m)	Minimum Height (m)
Building A	Fabrication	11,900	170 x 75	100 x 50	40	20
Building B	Repair and Fabrication	4,900	75 x 65	50 x 40	40	12
Building C	Light Assembly	2,500	129 x 20	80 x 15	10	8
Area C1	Light Assembly and Maintenance External Storage and Parking	5,000	N/A	N/A	N/A	N/A
Area D	Open Batching Plant and Storage Area	12,937	N/A	N/A	N/A	N/A
Area E1	Employee Car Park	3,050	N/A	N/A	N/A	N/A
Area E2	Employee Car Park	4,900	N/A	N/A	N/A	N/A
Area F1	External Multi Use Laydown and Final Assembly Area	8,100	N/A	N/A	N/A	N/A
Area F2	External Processing and Multi Use Laydown and Assembly Area	4,850	N/A	N/A	N/A	N/A
Area J	Extended Slipway and Transition Area	13,100	N/A	N/A	N/A	N/A

Design Principle 2 – Movement (Vehicle, Public Transport, Cycle/Pedestrian)

In order to maximise the efficiency of the proposed development, the two existing points of access should be utilised as follows:

- Primary access via Whites Farm Way and Meyrick Owen Way (Gate 4); and,
- Secondary accesses via Admiralty Way and Gate 1 off Front Street (Gate 1).

The proposed development should provide an appropriate level of on-site parking in accordance with Pembrokeshire County Council (PCC) parking policies. In addition, secure covered cycle parking should be provided to encourage the use of sustainable, active travel as well as a pedestrian/cycle crossing across Meyrick Owen Way, in the vicinity of the primary vehicle access to the site. A high-quality Travel Plan will enable the development to reduce its impact on the highway network through journeys being made by more sustainable methods of travel.

Design Principle 3 – Drainage and Flood Risk

The sustainable management of surface water is an essential element of reducing future flood risk to the site and its surroundings. As the existing site mainly contains low permeable hardstanding there will be negligible change in the permeability of site surfacing as a result of the proposed development. Overall, the drainage strategy will involve run-off being directed to new outfalls passing through interceptors and/or separators, as appropriate, prior to 'clean' water discharging into Milford Haven Waterway. Foul drainage will be routed via the dockyard wall to be picked up by the sewer leading to the adjacent Dwr Cymru Welsh Water treatment works.

Design Principle 4 – General Design Approach for the Public Realm

The public realm should be designed to encourage, support and sustain public activity in the external environment. Detailed designs for the spaces must create a distinctive and memorable place, delivering a character which is appropriate to the marine nature of the proposed development.

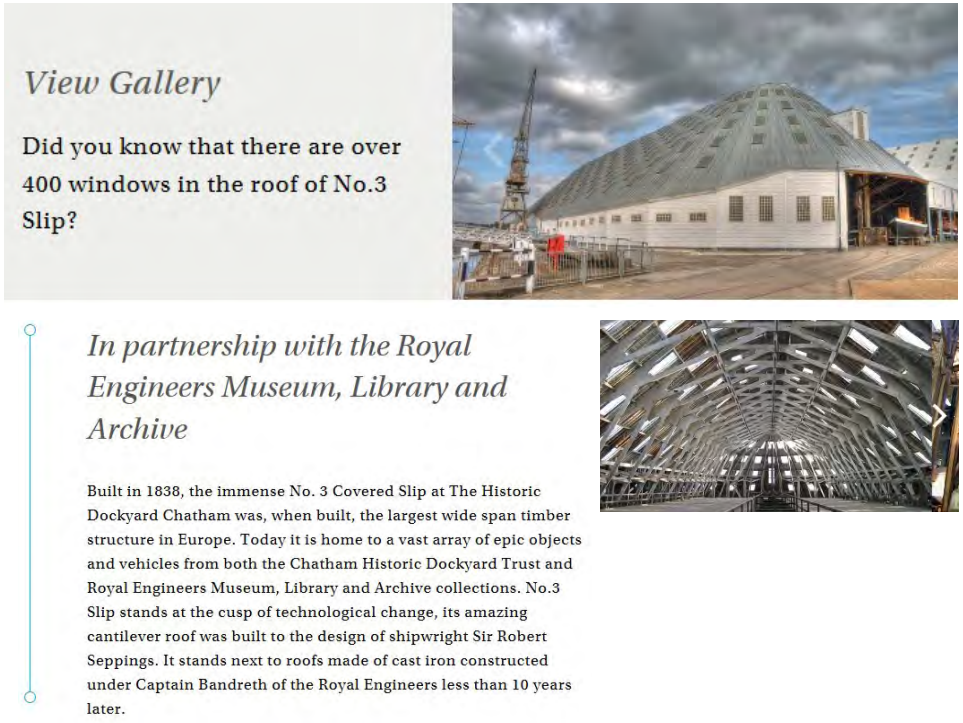
Design Principle 5 – Landscape and Ecology

Much of the site consists of concrete and asphalt hardstanding and compacted stony ground with very sparse vegetation of common herbs such as groundsel. The existing landscape elements in the form of mature trees and prominent vegetation in association

with Gate 4 should be retained where possible. An ecological corridor should be designed and created along the southern boundary to enhance the habitat for protected species.

Design Principle 6 – Buildings Concept and Precedent

As a direct result of operational and functional necessity, the proposed buildings are large. Historically, the Port has accommodated a number of large buildings, especially the numerous historic slipway cover buildings, all of which were located immediately adjacent to Milford Haven Waterway. As such, the key design principles that have been adopted for the proposed buildings includes curved roofs and mansard side elevations to echo the shape of the historic slipway cover buildings and aircraft hangar designs which reflect another historic use that took place at the Port and is still evidenced by the existence of the listed Sunderland Hangars in the Gate 1 area.



Comparison has been taken of the proposed production facilities at Pembroke Dock with their 19th century counterpart`s in the heyday of ship building and the form of the `mansard` type envelope structures sitting over the `Slip-Docks`.

Although none of the original slip-dock structures remain, the historic CGi recreations by De Montfort University show how closely these resembled their contemporaries at Chatham Dockyard of which the remaining slip no3 (preserved as a museum) indicates today.

The spirit of these great single volume structures with their unique scatter of roof lights to provide the maximum quantity of natural light technically available at that time, provide a distinctive appearance and it is this that has been sought to be interpreted to bring an identity to these modern structures.

Design Principle 7 – Heritage

Consideration of the heritage value of the existing listed structures together with the preservation of the original structures as much as possible have been incorporated with no direct complete losses of any statutorily designated heritage asset. The infill works will be undertaken in such a way that the vast majority of the works would be reversible and preserve the historic fabric intact and as completely as possible.

Design Development Key Components

The intention of the proposed development is to create a flexible and efficient Port-related office, industrial, warehousing and distribution, and ancillary area capable of meeting the needs of the modern blue economy. This will involve the intensive use of land side areas for fabrication, repair and servicing of boats, renewable energy devices, transporting cargo and other works requiring marine access, served by an appropriately structured highly flexible enlarged slipway. To realise the vision of a centre of excellence, several modifications are required to the layout of the Gate 4 area, including:

- Formation of a single 'mega' slipway and extension of the slipway towards deeper water;
- Provision of large areas of hardstanding in proximity to the quayside;
- Areas of flat land for use either as 'laydown' or capable of being developed to create buildings in response to time-sensitive business requirements.
- Enhanced interconnectivity between the new Gate 4 facility and the existing Gate 1 facility.

The proposed development will enable the provision of an enlarged single slipway at Gate 4 to facilitate the efficient transfer of vessels and marine renewable devices between land and sea, together with the formation of large open laydown areas to facilitate working on boats and devices without occupying slipways. The new single slipway will replace two existing smaller slipways and will be designed such that the historic fabric of the outer walls of these two smaller slipways will be retained.

Marine Components of the Project

The marine elements of the proposed development will include:

- Capital dredging around the slipways and within the Graving Dock;
- The creation of a single 'mega' slipway by combining the two existing westernmost slipways and extending the slipway into the Milford Haven Waterway into deeper water;
- The infilling of the Graving Dock; and
- The infilling of the Timber Pond.

Onshore Components of the Project

In addition to the hardstanding and laydown areas outlined above, large buildings for assembly, manufacturing and repair of vessels and devices will be required. At the southern boundary, areas and buildings for the importation and storage of goods and raw materials by land for fabrication activities on site will be required.

To achieve this, the following will be necessary:

- Creation of efficient areas of open space laydown in brownfield areas within the curtilage of the dockyard.
- Infilling the former Graving Dock;
- Infilling the former Timber Pond; and
- Demolition of some other buildings which are no longer fit for purpose, although the listed former Foremen's Office will be retained.

The above will allow the creation of six open areas for light assembly, maintenance, external storage, laydown and parking and an extended slipway and transition area. It will also provide space to construct three buildings to be used for fabrication, repair and light assembly purposes.

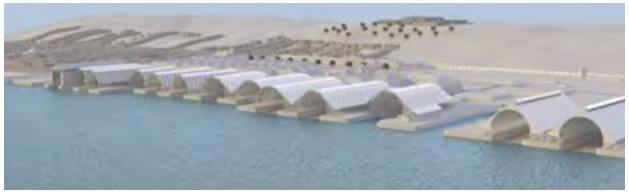
Originally, it was considered that a 'standard' shallow pitched roof design for the proposed buildings would be appropriate for the site given its industrialised character and the appearance of existing buildings in the area, as shown below.

However, given the scale and prominence of the buildings in the landscape and the emphasis in PPW on 'Sense of Place', it was decided to consider design options that reference its historic significance and use modern design techniques to assist in reducing the scale and massing of the buildings to provide a unique identity.

Two elevational treatments were considered. The 'Gazeley' option (named after the Amazon warehouse in Gazeley) sought to use banded colours ranging from a dark blue at base to a light grey at the eaves of the building to 'blend' into the (unfortunately) grey skies that dominate Wales and the UK for large parts of the year.

However, it was felt that this treatment did nothing to reduce the appearance of the length of the building in mid to long-distance views.

Therefore, a 'Rodeca scatter glaze' cladding option was preferred that reduced the bulk of the building through a combination of opaque and translucent panels giving it a 'perforated' and less solid appearance that also has sustainability benefits in providing natural light to the interior of the buildings while also echoing the design of the slipway covers that once dominated the site, as illustrated in the De Montfort University digital reconstruction of the appearance of the site in the 19th century.



DESIGN PROPOSALS

Concept Masterplan

The preceding sections have explained how the constraints and strategic principles were explored, evaluated and revised. The output of the evaluation is a Concept Masterplan which addressed all of the key issues and maximises the opportunities provided by the site and its context.

The key features of the site which have created this concept include:

- The proposed development requires the infilling of the Grade II* listed graving dock and the Grade II listed timber pond in order to establish the layout and buildings for the new scheme. The two Grade II listed shipbuilding slips will be amended to form a single large slipway. The Grade II listed former Foremen's Office will be retained and the proposed development provides an opportunity to renovate and conserve this building, although some of its significance will be lost as a result of the demolition of other historic buildings in the vicinity and also the infilling of the graving dock and the timber pond. For other historic assets with and adjacent to the dockyard, the proposed changes within their settings (including the construction of the new buildings) will also have an adverse effect on their significance.
- Several envelope options were examined for Building A & B by the design team whilst developing a scheme to satisfy the end user needs and in part, due to the physical height and mass of these structures in the locality, recognise the need to visually diminish their impact when viewed from significant locations.
- An elevational alternative to a Historic re-imagination of the facade being the use of tonal horizontal banding (darkest to the ground line and fading out incrementally as the level rises) in the manner of Gazeley Warehousing visual treatments.
- The façade option selected by the client team with which to proceed to consultation was the 'historic mansard option' and an acceptance that there is a marginal cost uplift to achieve this aim.

Aerial Site Plan

Concept Masterplan

- Application boundary 11.10 ha (27.42 acres)
- Land Leased to Mainstay
- Ferry Terminal Area
- Proposed buildings
- Existing buildings to be retained
- Proposed transport corridor
- Ship Access
- Mean Low Water
- Mud/Mean High Water
- Proposed Multi-use laydown/ assembly yard Areas
- Security gate/ check point
- Temporarily Manned Security Point
- Key movement routes
- Landscaping
- 6m ecology corridor (including 1m maintenance footpath)
- Key Access Points
- Proposed Revetment
- Heritage Mitigation areas and enhancement (subject to separate LBC applications)

Proposed High Quality Fabrication Facility
A – Fabrication building for sub-assemblies and marine engineering related activities (11,900sqm) – (170m X 70m and 40m to ridge)
F1 – External/open multi-use laydown and final assembly area (8,058sqm)
F2 – Existing external processing/open multi-use laydown and assembly area (4,836sqm)

Proposed High Bay Ship Repair and Fabrication Facility
B – High bay ship repair and fabrication building (4,900sqm) – (75m X 65m and 40m to ridge)

Proposed Slipway and Transition Area
J – Slipway and large open transition area (11,838sqm) – required to transfer completed components to the slipway and to allow large vessels to be moved to/from the high bay ship repair and fabrication building (Building B)

Proposed Light Assembly and Maintenance Facility
C - Light assembly and maintenance building (2,500sqm) – (129m X 20m and 10m to ridge)
C1 - Light assembly and maintenance external storage and parking area (5,000sqm)

Proposed Batching Plant
D – Open batching plant and storage area (12,937sqm)

Proposed Employee Car Park
E1 – Employee car park (3,040sqm)
E2 - Employee car park (4,853sqm)

The building sizes are indicative parameters only and will be adjusted to suit exact requirements.
The transport corridors will allow smaller completed modules or vessels to be transported to/from the existing heavy lift quay or partially completed sub-assemblies to be transported to/from the existing module assembly yard.
The light vehicle route is to allow access from Fort Road to the area occupied by Switzer.

Green Infrastructure

A new ecology corridor/linear area of green space will be placed along the southern boundary forming part of the masterplan to mitigate for the loss of some vegetated habitats on-site.

This linear area of green space will incorporate many of the retained mature trees within the site. In addition, plants and topsoil will be translocated to the linear green space from the open mosaic area at the Graving Dock. The linear green space will be subject to low intensity management to promote a naturalistic feel to the shrub planting and retained trees. Translocated herbaceous vegetation will be managed as a pioneer habitat with the control of colonising scrub and ruderals to promote high species diversity.

Heritage

In terms of the infilling of existing slipways, the Graving Dock and Timber Pond the project design has considered the heritage value of the existing structures and seeks to preserve as much of the original structures as possible. The infill works will be undertaken in such a way that the vast majority of the works would be reversible and preserve the historic fabric intact and as completely as possible.

Visible re-use of existing features, such as coping stones, capstans, bollards and the caisson gate, will be incorporated within the development.

The project is designed in such a way that, where impacts on heritage assets are unavoidable, there is no direct complete loss of any statutorily designated heritage asset.

Building Design

As a result of operational necessity, the proposed buildings (A & B) are large. However, historically, the Port has accommodated a number of large buildings, especially the numerous historic slipway cover buildings, all of which were located immediately adjacent to Milford Haven Waterway. In order to mitigate the scale and mass of the proposed buildings, cladding options have been considered such as horizontal cladding panels grouped by colour, which is a widely used method for reducing the scale of buildings such as distribution warehouses whereby the cladding pattern can be altered to reduce the vertical emphasis of a building or using a combination of opaque and scattered translucent panels.

The internal space required to assemble modern off-shore structures with the use of overhead travelling cranes and requiring large clear-opening gable doors to access external apron areas to the quayside, necessitate using a mansard with greater vertical emphasis to the side walls combined with a gentle sweeping curve to the roof providing a profile reminiscent of their historic forebears.

Panelisation of the side walls and use of scatter pattern (colour -deep blue) translucent panels make suggestion of the slip-docks` and their colour (metallic Pewter) selected for historic and visual purposes to minimise `volumetric bulk` in context of the industrial structures within the area.

At night the structures provide a filigree of light from their many small scale translucent panels and visually diminish the mass of the entire structure.

The aim was to create a `community of visually related structures` and bring an identity to this newly developed part of the former wharf.

Lighting

The lighting strategy for the proposed development will include the following key principles:

- The lighting strategy will comply with the requirements of the Dock Regulations.
- Lighting will be designed to be contained within the site, avoiding spill into adjoining properties an objective that is aided by the existing high dockyard walls and the shading provided by both existing and proposed buildings.
- The proposed linear green space at the southern boundary of the site is being designed as a bat flight corridor with very low lux levels (max 1 lux).
- Proposed Building C will be designed to avoid light spill from internal light sources that could affect the bat flight corridor.
- Lighting will be managed such that it does not remain on when not required and so that it can be dimmed to suit certain operational situations.

Pembroke Dock Photomontages - Proposed Views

Architectural visualisations are shown for illustrative purposes and are indicative only

Pembroke Dock Photomontages - Proposed Views

Architectural visualisations are shown for illustrative purposes and are indicative only

The proposed development at Pembroke Dock has the capacity to deliver a high quality development within this strategic Port location delivering a centre of excellence which will be complimentary to the existing Port related activities.

Summary

This Design & Access Statement confirms that the proposed development at Pembroke Dock has the capacity to deliver a high quality development within this strategic Port location delivering a centre of excellence involving the intensive use of land side areas for fabrication, repair and servicing of boats, renewable energy devices, transporting cargo and other works requiring marine access, served by an appropriately structured highly flexible enlarged slipway, all of which will be complimentary to the existing Port related activities. The scheme has been designed in accordance with adopted planning policy and relevant national guidance including Technical Advice Note 12: Design.

This document demonstrates how the site's opportunities and constraints have been accommodated within the design of the scheme. As a direct result of operational requirements, the new buildings need to be large and will form prominent elements in the local landscape, however they are set within a context where large commercial Port buildings and hangers are a common element resulting in a sustainable development that respects the local character and surroundings.

MAKING COMPLEX EASY

RPS | Consulting UK & Ireland
2 Callaghan Square
Cardiff
CF10 5AZ

T: +44 (0) 2920 668 662

rpsgroup.com