



Bro Tathan  
**Y Porth**  
Development brief  
July 2020



Llywodraeth Cymru  
Welsh Government

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# 1 Introduction

## Introduction

**101** This development brief has been prepared by **WYG** Group in conjunction with the Vale of Glamorgan Council for the Welsh Government. It sets out advice to guide development proposals for **Y Porth** at **Bro Tathan**, located in the Vale of Glamorgan: see **Figure 01**.

## Background

**102** The Welsh Government plans to further develop its business park at Bro Tathan, which it is promoting on either side of an existing operational runway, and to the north, in five areas as shown on **Figure 02**:




- **Y Gorllewin West**: land north of the runway, east of the army-occupied West Camp and including the Aston Martin Lagonda (AML) car manufacturing facility;
- **Y Dwyrain East**: land north of the runway between the eastern boundary of the AML factory and the overall site boundary to Cowbridge Road in the east;
- **Y De South**: land south of the runway at Batslays, West Orchard and Beggar's Pound;
- **Y Gogledd North**: land to the north at Picketston; and
- **Y Porth**: land with which this development brief is concerned, as described below.

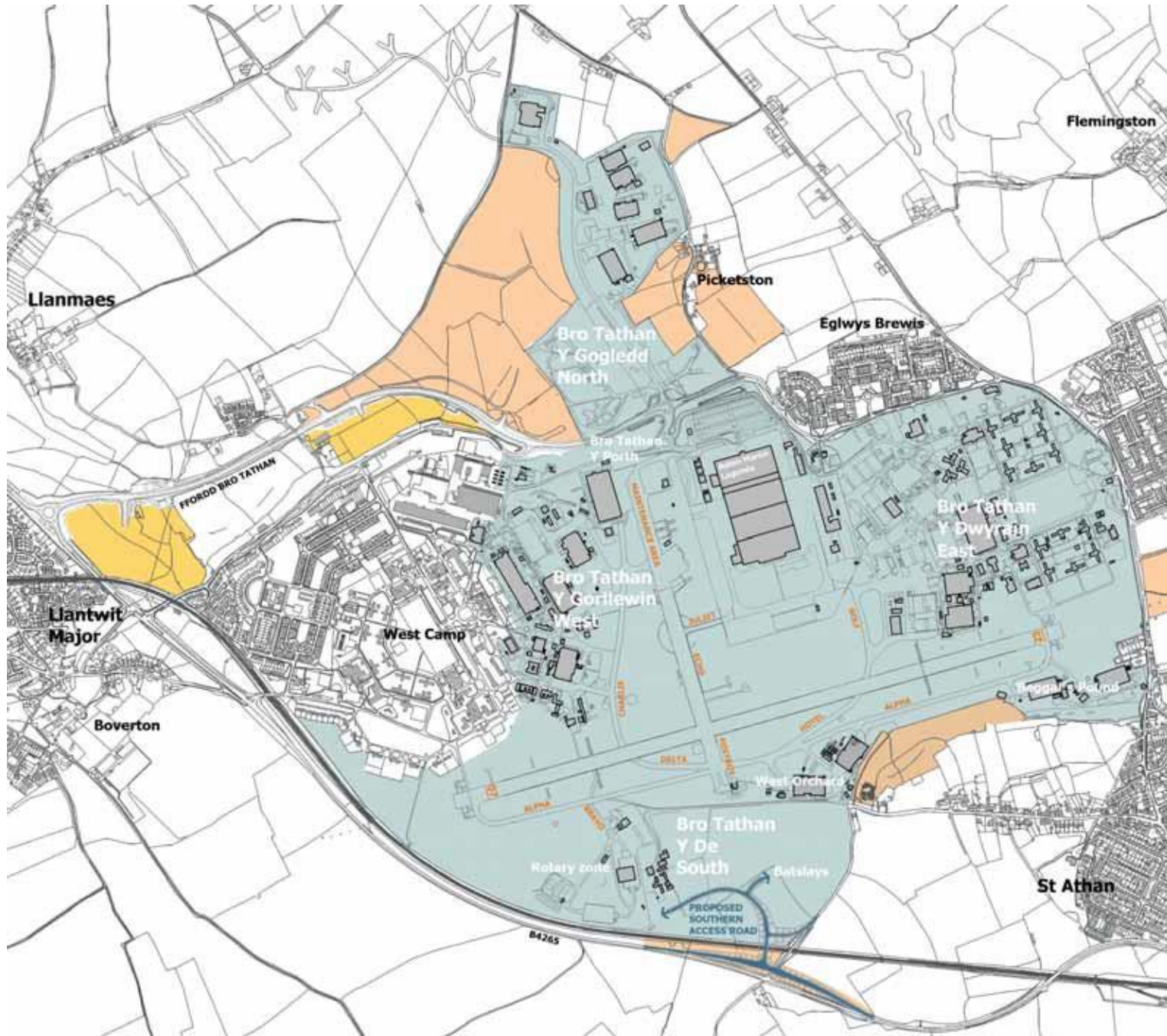
**103** As an essential part of the Welsh Government's ambitious plans for **Bro Tathan**, it has procured a new access road – the Northern Access Road (NAR), named **Ffordd Bro Tathan** – which provides high-quality, direct access for new and existing businesses at Bro Tathan, such as the AML car manufacturing facility, Bristow Helicopters and eCube. **Y Porth** ('the site') is located on the north and south sides of the eastern end of the NAR and marks a crucial point of arrival at the business park. A master plan scenario for **Bro Tathan** is outlined in section 2 of this report and the proposals for **Y Porth** should be viewed in the context of this overall proposition.

**Left Figure 01 Location plan**  
(scale: 1:100,000 at A3 page size)

Right **Figure 02 Site identification plan** (scale 1:12,500 at A3 page size)

**Key**

-  Bro Tathan
-  Other land in the ownership of the Welsh Ministers
-  Proposed housing sites (land in the ownership of the Welsh Ministers)





### Purpose of the document

**104** This document will be of use to all those involved in the planning, design and delivery of development proposals for the site. It provides a steppingstone between the provisions of **The Vale of Glamorgan Local Development Plan 2011-2026** (LDP) and the requirements of a planning application by setting out design guidance for buildings, access, car parking, architectural appearance and landscaping to ensure consistency and quality throughout the duration of its construction. Specifically, the main purpose of the document is to:

- establish a clear set of design principles that will be applied to achieve the Welsh Government's vision for the site;
- provide the starting point for dialogue between developers, their design teams and The Vale of Glamorgan Council before the submission of any planning application; and
- play an important role in assessing developers' proposals before and after the submission of a planning application.

**105** It is intended that this document will be adopted by The Vale of Glamorgan Council as the development brief for the site.

### Structure of the document

**106** Following this introduction, the document is presented in five further sections:

- The **Bro Tathan master plan** outlines the emerging master plan for the overall development.
- The **site** describes the location of the site, its relationship with the surrounding area and the key constraints to, and opportunities for, its development.

- The **concept** sets the overarching vision for **Y Porth** and summarises some of the key uses that are expected to be developed on the site;
- The **development framework** establishes a set of principles to guide developers, consultants, designers and contractors involved with the design and development of the site; and
- The **design guidance** sets out in more detail the design requirements for certain aspects of development.

### Policy background

**107** In September 2011, the Welsh Government announced the creation of a number of enterprise zones in Wales, of which the **Cardiff Airport and St Athan Enterprise Zone** was one, with the aim of creating new jobs and sustainable economic growth. In 2014, the Welsh Government commissioned the preparation of a high-level strategic development framework for the enterprise zone, the report of which states that the enterprise zone 'represents an unprecedented opportunity to deliver significant aviation and defence related economic growth', and that:

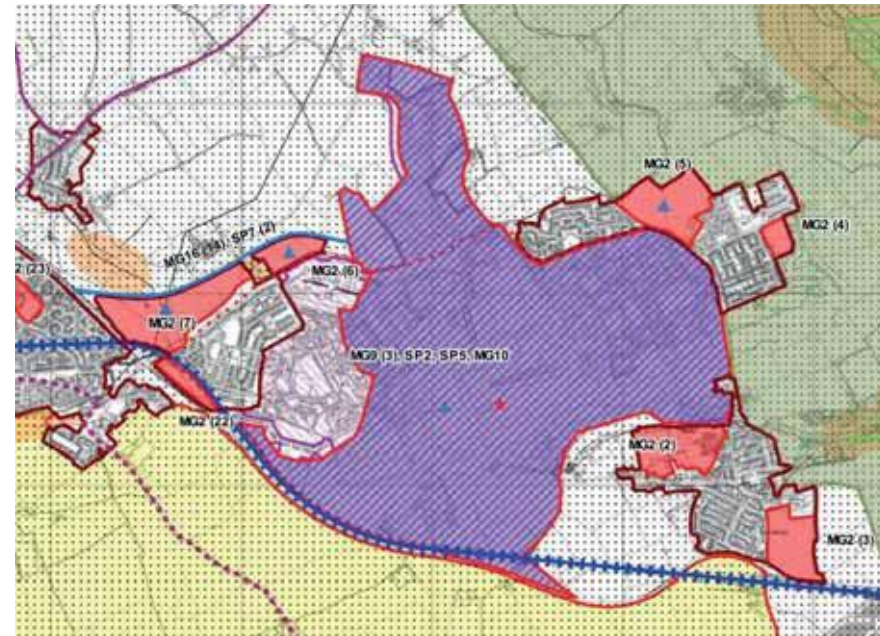
'the Aerospace Business Masterplan is well-defined and provides long term business assurance to organisations thinking of moving to St Athan. The Masterplan optimises the use of the existing Super Hangar and includes the provision of dual purpose narrow body/wide body hangars and other facilities which can be flexibly configured for civil or military base maintenance use. New development is to be developed in phases, according to the envisaged release of land currently occupied by MoD. This includes proposals for a new northern access and residential units.'<sup>1</sup>

<sup>1</sup> **Cardiff Airport - St Athan Enterprise Zone: Strategic Development Framework.** Welsh Government, 19 February 2015, pp. 29 and 30.



**108** The development plan for the area in which Bro Tathan is located is **The Vale of Glamorgan Local Development Plan 2011-2026** (LDP), which was adopted by the Vale of Glamorgan Council on 28 June 2017.

**109** On the **LDP Proposals Map**, Bro Tathan is designated as a large employment area covered by Policy MG 10 which allocates 305 ha of land at St Athan for strategic employment uses within Classes B1, B2 and B8. The LDP also promoted the NAR as an essential item of infrastructure to serve Bro Tathan and other development in the area (Policies SP 7 and MG 16).



**110** In terms of national planning policy, the Welsh Government has identified Bro Tathan as a Strategic Opportunity Area in **The Wales Spatial Plan 2008 Update**. This allocation is reflected in the Welsh Government's decision to designate the Cardiff Airport and St Athan Enterprise Zone, intended to create the best possible conditions in which businesses can thrive. This favourable status gives Bro Tathan a special place in the Welsh Government's plans to promote economic growth in Wales – a strategy that has already met with success through the investment attracted and high-value jobs created.





## 2 Bro Tathan master plan

### The master plan

**201** An illustrative master plan for **Bro Tathan** is shown in **Figure 03** overleaf.






















**202** In this scenario, the predominant uses within each of the zones noted in paragraph 102 are envisaged to be as follows:

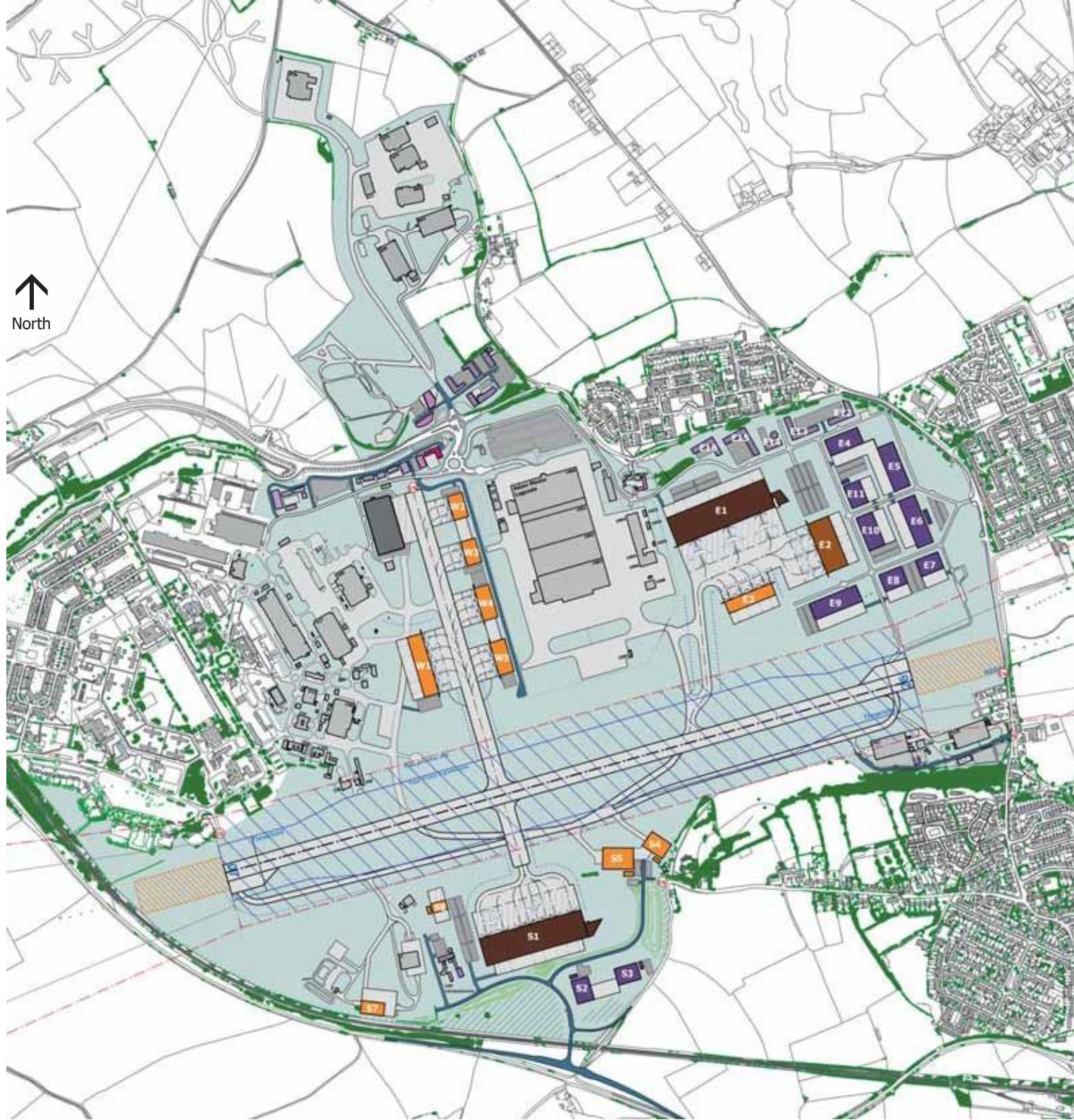
- **Y Gorllewin West:**
  - large aircraft maintenance, repair and overhaul (MRO)
  - motor car manufacturing.
- **Y Dwyrain East:**
  - large aircraft MRO
  - supplier park
  - ICT and cyber-security.
- **Y De South:**
  - rotary and light aircraft operations
  - small aircraft MRO.
- **Y Gogledd North:**
  - off-wing supplier park.

**203** Essentially, there would be two types of buildings. First, are those with uses that would require access to the runway, generally hangars for MRO, the sizes of which would depend on the type and number of aircraft that they would accommodate. Existing hangars, with the exception of Building 282 ('Twin Peaks') were built to accommodate small, fixed-wing military aircraft and, while some of these remain suitable for smaller aircraft, larger hangars are required to accommodate narrow body civil jets and/or new large military aircraft. Second, are those that would house activities that would not require runway access. The latter would be more standard-type industrial/employment and office buildings, with uses including aircraft design, training, research and development.

**Right Figure 03 Illustrative plan**  
 (scale 1:10,000 at A3 page size)

**Key**

-  Bro Tathan
-  Large hangar (maximum height 25 m)
-  Medium hangar maximum height 20 m)
-  Small hangar (maximum height 12 m)
-  Industrial building
-  Office building
-  Ancillary retail, leisure and other uses
-  B1/B2/B8 employment uses
-  Hotel
-  Existing building
-  Runway
-  Taxiway
-  Aircraft tow clearance
-  Aircraft hardstanding
-  Service area and roads
-  Car parking
-  New road
-  Crash gate
-  Land form
-  Ecology mitigation zone
-  Bat house



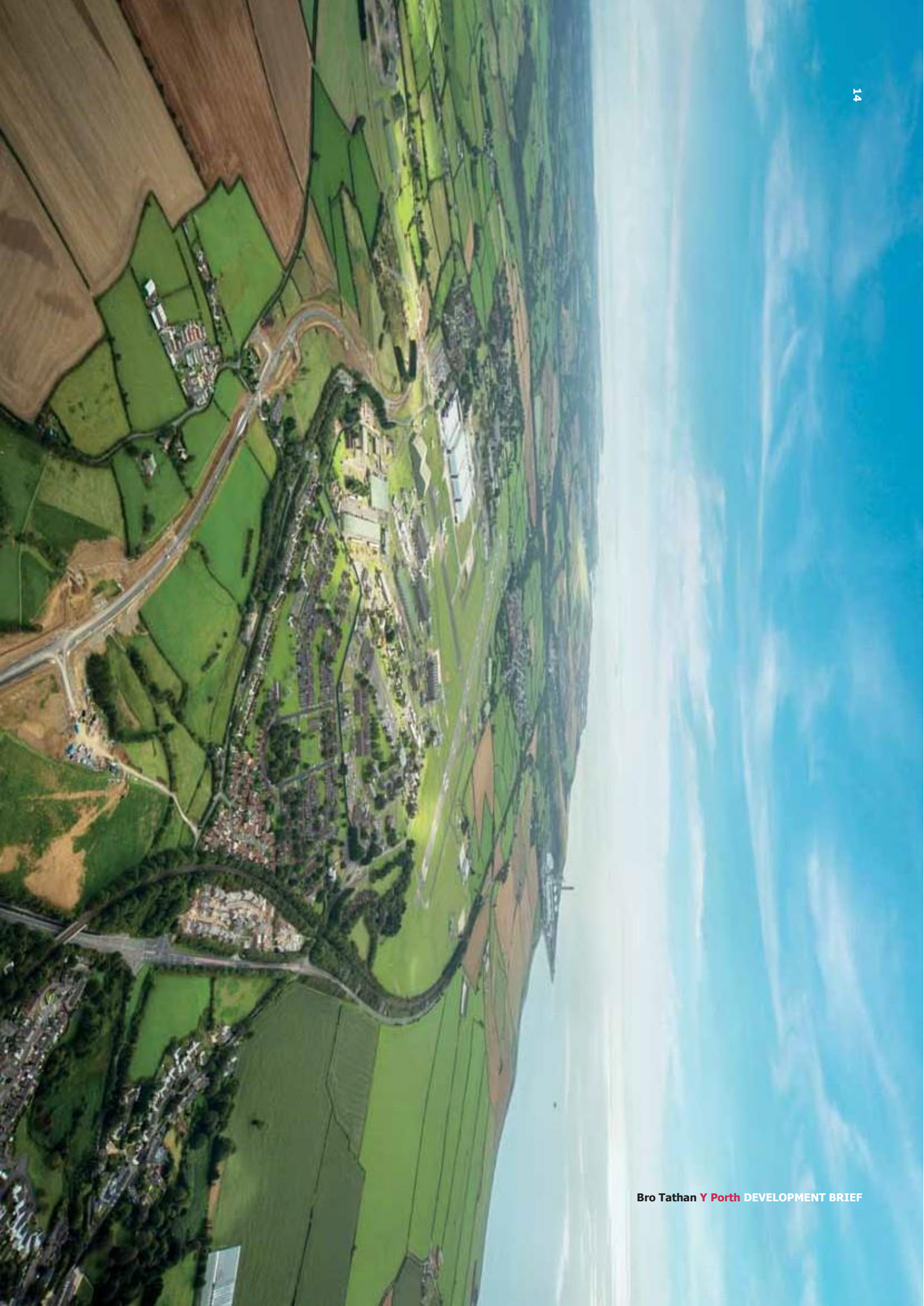
### Summary of master-plan outputs

**204** The master plan scenario in **Figure 03** opposite illustrates the provision of buildings and uses summarised in the following table:

<b>Building</b>	<b>Y Gorllewin West</b>	<b>Y Dwyrain East</b>	<b>Y De South</b>	<b>Y Gogledd North</b>	<b>Totals</b>
<b>Hangars</b> (floor space in m <sup>2</sup> )	48,384	39,600	41,788	0	<b>129,772</b>
<b>Offices</b> (floor space in m <sup>2</sup> )	4,785	13,705	6,061	400	<b>24,951</b>
<b>Industrial</b> (floor space in m <sup>2</sup> )	71,025	38,222	6,328	16,015	<b>131,590</b>
<b>Warehousing</b> (floor space in m <sup>2</sup> )	0	0	0	9,311	<b>9,311</b>
<b>Airfield and other uses</b> (floor space in m <sup>2</sup> )	1,510	1,529	4,770	0	<b>7,809</b>
<b>Total floor space</b> (m <sup>2</sup> )	<b>125,704</b>	<b>93,056</b>	<b>58,947</b>	<b>25,726</b>	<b>303,433</b>

**205** The above is just one of a number of possibilities for the development of Bro Tathan over the next twenty years. Other scenarios could include different uses and building sizes, the development of which would be dependent on market demand. However, it represents a reasonable minimum land-use budget for the site in order to provide the context in which the ancillary/complementary proposals for **Y Porth** –

as described in section 4 and section 5 of this report (and not included in the above table) – may be viewed.





# 3 The site

## Location

**301** This design guidance relates to **Y Porth**, located on the northern edge of Bro Tathan in the Vale of Glamorgan. The site is divided on either side of Ffordd Bro Tathan and together forms the northern arrival point for the business park. It is located approximately 2.5 km inland from the Bristol Channel, 25 km west of central Cardiff and 15 km south-east of Bridgend: see **Figure 01**.

## Land ownership

**302** The site is in the ownership of Welsh Ministers as shown on **Figure 04**.

## Site description

**303** The site comprises 6.7688 ha of land straddling the NAR:



- The part to the south of Ffordd Bro Tathan is approximately 3.2901 ha in area, measuring approximately 500 m in length and between 40 m and 80 m in width. Its eastern end is bounded on three sides by Ffordd Bro Tathan, and its associated junctions, which serve the site. Its southern boundary is formed by Scott Way, beyond which is **Y Gorllewin West** employment area and the runway.
- The area to the north of Ffordd Bro Tathan is approximately 3.4787 ha in area, measuring approximately 460 m in length and 125 m in width. The site is bounded by agricultural land to the north-east and further future business development opportunities to the north.

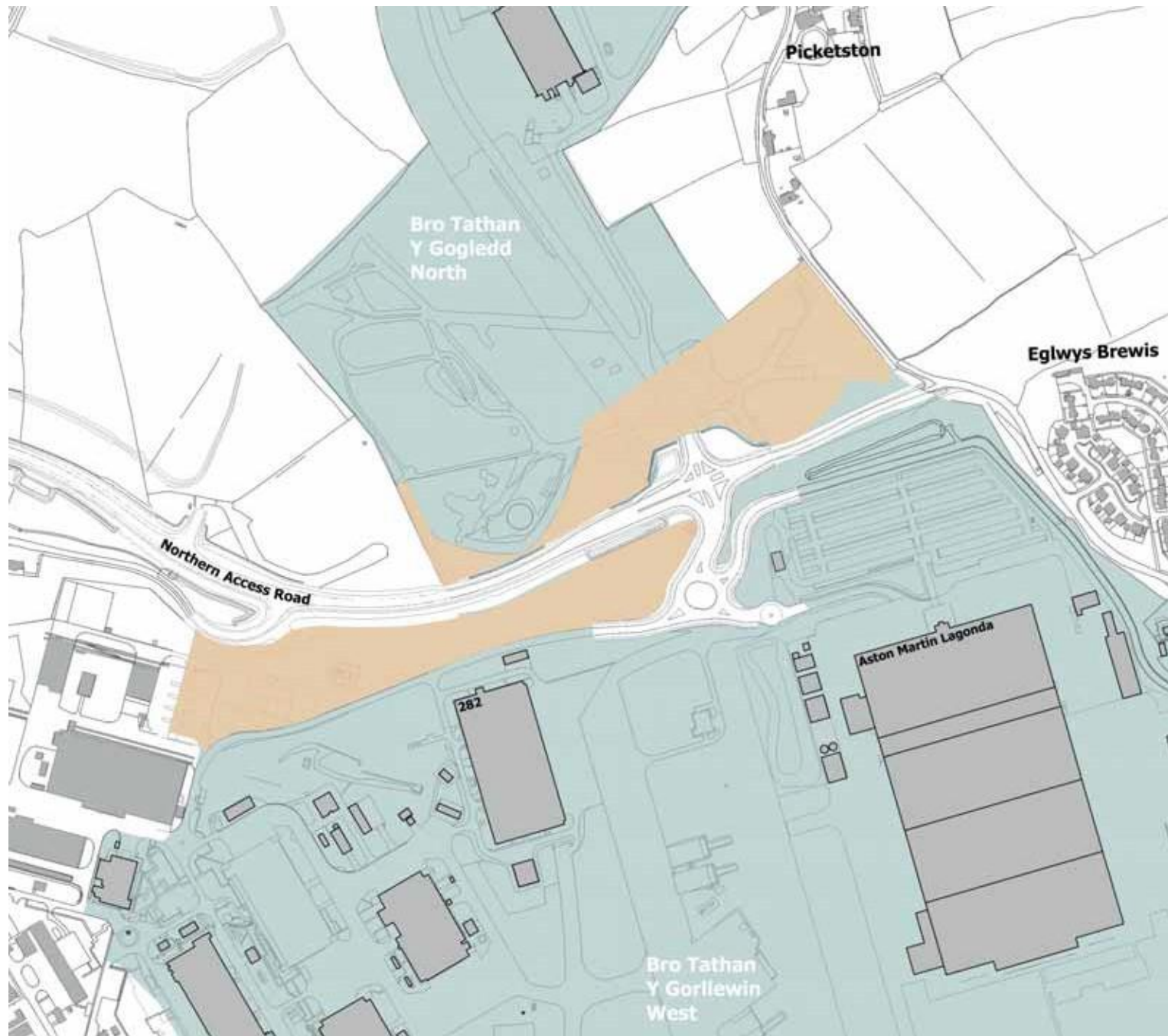
**304** The main factors pertaining to the site are summarised below; full information will be found in the technical pack being prepared for the site.

**Left** Aerial photograph of Bro Tathan looking south-east (source: Welsh Government)

**Right Figure 04 The site**  
(scale 1:4,000 at A3 page size)

**Key**

-  Y Porth development site
-  Bro Tathan





### Topography

**305** The site to the south of Ffordd Bro Tathan is relatively flat with a rise of around 3.3 m from the north-east of the site to a high point of 44.4 m in the south-west of the site. Ffordd Bro Tathan, which bounds the site to the north, is elevated above the site by approximately 1.0 m. The site to the north of Ffordd Bro Tathan is also relatively flat with land form sloping gently downwards from the north towards the south by approximately 2.9 m.

### Physical factors

#### Geology

**306** Ground investigation information suggests that there may be made ground present on site despite being largely undeveloped as a former airside location. The site is underlain by the Porthkerry Member, which comprises interbedded mudstone and limestone. It is indicated that the depth to bedrock is shallow and that there may be fine-grained limestone beneath the superficial clay deposits in the area.

#### Ground conditions and contamination

**307** Although the area is undeveloped, the site is subject to made ground and historic utility installations. Existing ground conditions are anticipated to be good with competent ground (bedrock) expected to be beneath shallow bands of made ground.

**308** The risk of ground contamination in the site is considered to be moderate, following the recent intrusive ground investigation. There are known sources of contamination in adjacent areas resulting from Bro Tathan's former use as a military aerodrome. The risk of the presence of unexploded ordnance is considered to be low, but with the potential to be higher owing to the historic military use. It is advised that a watching brief is undertaken during any intrusive ground works to reduce the effect of these risks. It is recommended also that full radon protection is provided in the construction of any new buildings.

### Hydrogeology and flood risk

**309** While the bedrock geology of the Porthkerry Member is recorded as being a secondary A aquifer (permeable layers capable of supporting local water supplies), the ground conditions have been proven to have low permeability characteristics to support the use of permeable surfaces or soakaways as part of a surface water management system. Owing to the bedrock and aquifer, the water table is reportedly high.

**310** The site is not at risk from flooding other than from surface water, where the risk is deemed to be low (Zone A on Natural Resources Wales's **Development Advice Map**: see extract below). Adjacent areas, such as existing developments and Ffordd Bro Tathan, are at greater (medium) risk owing to their lower lying positions and the presence of two small watercourses to the west and east of the site, along Ffordd Bro Tathan.



**Right Figure 05 Constraints and opportunities** (scale 1:3,000 at A3 page size)

**Key**

-  Y Porth development site boundary
-  Bro Tathan
-  Primary road
-  Proposed access points
-  Existing vegetation
-  Sloping land
-  Views out from the site
-  Views towards the site
-  Pedestrian routes
-  Opportunities for public art installations
-  Opportunity for land-form artwork
-  Contours (0.5 m intervals)
-  Noise from road
-  Gateway
- World War II airfield ground defence heritage assets:
-  Battle headquarters
-  Pillbox
-  Pickett-Hamilton Fort



## Environmental factors

### Cultural heritage and archaeology

**311** The site does not contain any scheduled monuments and does not form part of an historic park, garden or landscape as recorded in the non-statutory **Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales**.<sup>1</sup>

**312** An archaeological desk-based assessment has not been carried out yet for the site, but such a study for land to the south – between taxiway Echo and Aston Martin Lagonda – found there to be high potential for archaeological remains of Roman, medieval and modern dates to be encountered in the vicinity and moderate potential for remains of post-medieval and industrial dates.<sup>2</sup>

**313** On or adjacent to the site are several wartime ground defence structures, as shown on **Figure 04** opposite. These include:

- Battle headquarters (BHQ), in hedgerow south of Picketston Cottage (ST 00159 69464). This is a complex of five underground rooms built to coordinate airfield defence, with a command post cupola at the west end and entry via a flight of steps at the east end (**RAF St Athan: airfield ground defence gazetteer**<sup>3</sup> site number 1).
- FW3/22 type pillbox located 45 m south of the BHQ, on the site (ST 00177 69419). This is a freestanding, hexagonal shaped pillbox constructed to defend

<sup>1</sup> **Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales**, Cadw: Welsh Historic Monuments, 1998-2001.

<sup>2</sup> **Bro Tathan, Eglwys-Brewis: Archaeological Desk Based Assessment**, WYG Group, version 1, October 2019.

<sup>3</sup> **RAF St Athan: airfield ground defence gazetteer**, Defence Estates Site Management Team, draft 2, June 2008.

the BHQ, partly buried and surmounted by an earth and turf cap for camouflage and a south-west facing entrance (**RAF St Athan: airfield ground defence gazetteer**<sup>4</sup> site number 3).

### Ecology

**314** The site does not contain or lie adjacent to any designated sites of biodiversity value, either statutory or non-statutory. Habitats consist of rough grassland with smaller areas of ruderal vegetation, scrub and bare ground. There are a small number of buildings with associated hardstanding. Common reptiles and hedgehog are likely to be present, as well as nesting birds. There is some potential for the site to support roosting bats, dormouse and great-crested newt. However, it is considered unlikely that any of these protected species is present. Provided that appropriate mitigation measures are followed, there are unlikely to be any significant ecological constraints.

### Trees

**315** Most of the hedgerows and trees present will be retained in the new development. A small number of the trees to be removed will require pre-felling checks for bats. Any tree works will take place outside the nesting bird season.

## Infrastructure

### Access

**316** The main vehicular access to the site is from the traffic signal-controlled junction on Ffordd Bro Tathan. The southern parcel of **Y Porth** is accessed via a four-arm roundabout on to Scott Way, which is approximately 6.0 m wide with 2.0 m wide footpaths on each side.

<sup>4</sup> Ibid.



### Surface water drainage

**317** Ground investigation works have shown that soakaway characteristics in the area are poor; therefore, there is limited opportunity to include permeable surfaces or soakaways as part of the surface water management system. Surface water drainage should typically capture run off through engineered falls and attenuate flow volumes on site with a restricted discharge to existing surface water.

**318** Sustainable drainage systems (SuDS) will need to be incorporated to comply with the national standards published by the Welsh Government,<sup>5</sup> which aim to manage rainfall in a way similar to natural processes, making use of the landscape and natural vegetation to control the flow and volume of surface water.

### Utilities

**319** Significant utilities are present in the area, following the corridor of Ffordd Bro Tathan and into the northern part of the development site, as well as various individual services that spur off and cross the development site. Services include high- and low-voltage cables, medium-pressure gas supplies, telecom (BT Openreach and private), potable water mains, fire mains, and surface and foul water drainage. There is an existing WPD substation in the southern part of the development site, which is intended to remain in place. Any utilities affecting the proposed development plots will be diverted.

### Constraints and opportunities

**320** The following provides a summary of the site's main constraints and opportunities, which are presented graphically on **Figure 05**:

#### Constraints

- Gently sloping topography of the site.
- Services and utilities crossing the site.
- Surface water drainage.
- Road traffic noise from Ffordd Bro Tathan.
- Proximity to an operational runway.

#### Opportunities

- Potential to create an attractive and distinctive 'gateway' to Bro Tathan with a distinctive sense of place.
- Opportunity to deliver benefits to Bro Tathan and the local community from a range of uses and facilities.
- Potential to connect to the existing network of footpaths and cycleways around the site.
- Location of bus stops on Ffordd Bro Tathan and on Eglwys Brewis Road within 500 m of the site.
- Views southwards towards the airfield.
- Opportunity for public art to provide a strong visual message about the quality and character of the development.

<sup>5</sup> **Statutory standards for sustainable drainage systems - designing, constructing, maintaining surface water drainage systems**, Welsh Government, 2018.

# 4 Concept

“... a high-quality design that will reinforce the site’s role as the gateway to Bro Tathan and create a distinctive sense of place...”

## The vision

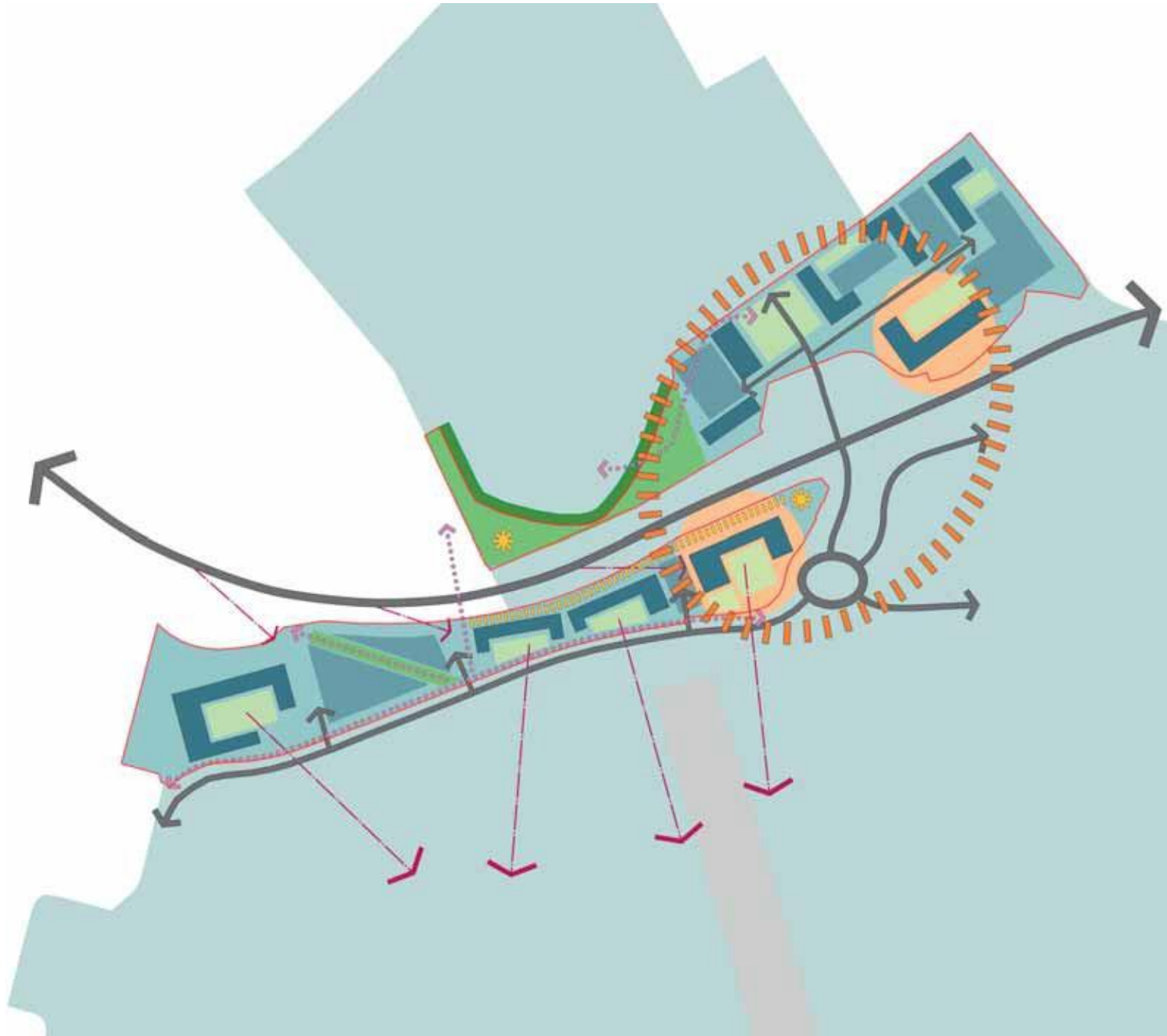
**401** The ambition of the Welsh Government is to deliver at **Y Porth** a wide range of uses to serve the Bro Tathan business park and the surrounding communities with a high-quality design that will reinforce the site’s role as the gateway to Bro Tathan, create a distinctive sense of place, and help set the bar for the design quality of subsequent inward investment proposals.

## Uses sought and rationale

**402** A variety of uses is sought for the site that will complement the wider Bro Tathan business park, as well as providing a destination for surrounding communities. A business park of the size of Bro Tathan, with its existing major employers such as AML, and the ambition for the substantial future development described in section 2 to provide high-value jobs, needs an appropriate range and scale of ancillary uses for it to function effectively. Appropriate ancillary uses that may be provided include:

- hotel (60 to 80 bedrooms) with ground floor cafeteria/bar
- convenience store for tier 1 operator (232 m<sup>2</sup> to 372 m<sup>2</sup>)
- convenience store for tier 2 operator (139 m<sup>2</sup> to 232 m<sup>2</sup>)
- coffee shop (172 m<sup>2</sup>) with main road frontage
- food outlet(s) (93 m<sup>2</sup> to 139 m<sup>2</sup>) with main road frontage
- crèche
- gymnasium
- offices/headquarter office
- employment (use classes B1, B2, B8)
- garden centre
- farm shop
- medical facilities
- showroom(s) for cars, boats or aircraft.

Right **Figure 06 Concept** (not to scale)



**403** Some of the above uses were granted planning permission in 2009 as part of the proposed development and enhancement of the Welsh Government's Aerospace Business Park (as it was called at that time) and the Defence Technical College, which was being procured by the Ministry of Defence (MoD) but which was terminated by the UK government in October 2010.<sup>1</sup> The approved uses included a community centre, crèche and a 150-bedroom hotel along the northern side of the NAR, together with the retention of the existing shop adjacent to Eglwys Brewis Road. This shop – now a Costco convenience store – and the existing gymnasium, cinema and cafeteria in the southern part of **Y Dwyrain**, will be demolished as the MoD retracts from this area of Bro Tathan. The proposed hotel, community and ancillary retail uses at **Y Porth** should be viewed in this context, therefore, as they would replace this lost provision, would continue to serve the existing population (both the daytime employment and local resident population) and would be ancillary to the business park. In particular, the proposed hotel – which would be significantly smaller than the one granted permission in 2009 – is seen by the Welsh Government's commercial property adviser, Savills, as a vital element for the future success of the business park:

'In order to support a sustainable business park of this scale and calibre, it is critical that the needs of its occupiers and their visitors are well catered for in the provision of ancillary services. Bro Tathan is already home to about 730 civilian employees and, with the intention to market to global occupiers to attract significant inward investment to the region, it is essential that Bro Tathan can demonstrate that it offers modern-day facilities and services to occupiers in order to compete with other business parks across the UK and offer a compelling case as to why they should invest in the region. A hotel is an important piece of that infrastructure for Bro Tathan, given the current lack of facilities in the immediate vicinity of the site.'<sup>2</sup>

<sup>1</sup> Planning permission 2009/00500/OUT for the Defence Technical College; planning permission 2009/00501/OUT for the Aerospace Business Park.

<sup>2</sup> Email from Scott Caldwell, Director, Savills to Jonathan Vining, WYG, et al, at 18:26 on 27 August 2019.

**404** The ancillary uses statement at **Appendix 1** confirms that these elements will be relatively small in scale and ancillary to the overarching employment use of the site.

**405** In terms of programme, the Welsh Government wishes to see the proposed development of **Y Porth** implemented as soon as possible. It is working actively to remove some of the site's current constraints (through service diversions, utility provision and the like) so that an early first phase of development can start the place-making process with a critical mass of development that will make Bro Tathan even more attractive to new investment in small- and large-scale enterprises at Bro Tathan.

### Concept

**406** The design concept for **Y Porth**, which is illustrated on **Figure 06**, is for the development to enhance one's **sense of arrival, mark the 'gateway'** to Bro Tathan and create a **distinctive sense of place**. This will be achieved through the form and scale of development, the variety of uses, the creation of high-quality 'landmark' buildings and the integration of appropriate public art and high-quality landscape.

**407** The form of the buildings on the southern part of the site will be U-shaped in plan, with the resulting courtyards laid out as attractive and useful areas of pedestrian-friendly public realm, taking advantage of the southerly aspect and views towards the airfield. Any proposal for individual pavilion buildings surrounded by car parking, such as one may encounter in standard out-of-town developments, will not be acceptable.

**408** The hotel will be located on the prime site at the eastern end of the southern part of the site and will be one of two 'landmark' buildings defining the 'gateway' to Bro Tathan. Some car parking will be allowed in the vicinity of the hotel, but most of the car parking for the southern site will be provided in a single area towards its western end. A safe and attractive pedestrian/cycle route will be provided along the Scott Way frontage.



**409** The form of the buildings on the northern part of the site will be similar, but here, to the east of the access road, the courtyard will be internal so that the buildings will provide strong frontages to the access road and to Ffordd Bro Tathan. The headquarter office will be located diagonally opposite the hotel and, being most visible in the vista from the west, will be the second 'landmark' defining the 'gateway' to Bro Tathan.

**410** Public art will be incorporated to reinforce positive perceptions of the site along Ffordd Bro Tathan from the west and mark the arrival to Bro Tathan in a unique way through linear, land-form and vertical features in the landscape.



# 5 Development framework

## Development layout

**501** The development framework plan, **Figure 07** overleaf, shows how the potential layout of buildings, car parking and service areas will be organised to deliver the vision for **Y Porth**. The layout will create a positive 'sense of place' with high-density development organised around courtyards or public spaces, which are protected from impacts associated with Ffordd Bro Tathan and benefit from views into the wider business park. Car parking will be located away from the main public spaces, enabling a pedestrian-friendly public realm, which includes a reception building for Bro Tathan and public art installations.

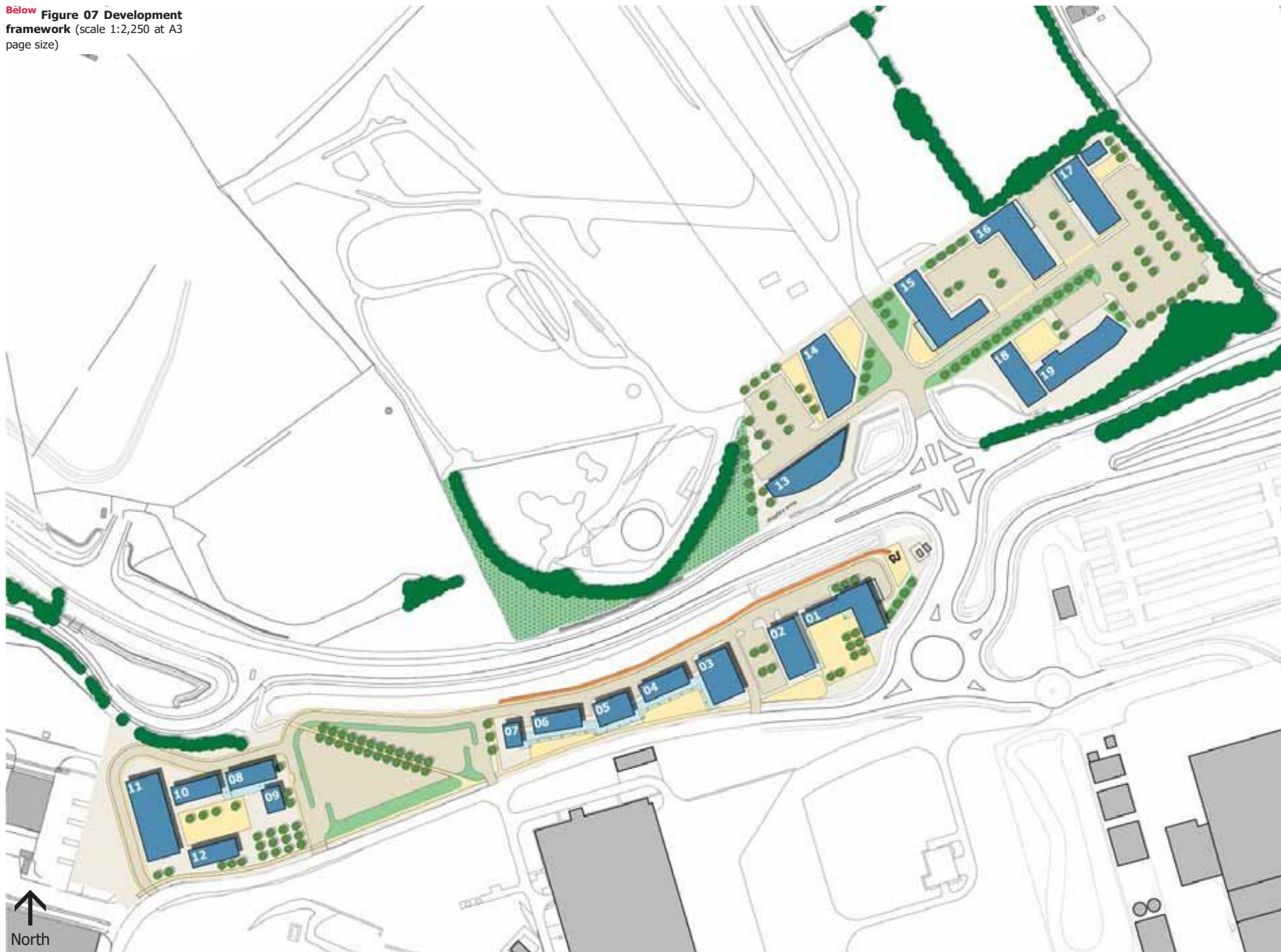
**502** A key feature of the master plan is the pedestrian and cycle route running east to west on the southern development area that links all courtyard development areas with parking provision and the wider area including potential park and ride sites north of Ffordd Bro Tathan. With the pedestrian/cycle routes in place, the courtyards will be able to be developed in sequential phases or in phases that are independent of each other providing flexibility to a developing market.

## Land-use budget

**503** The following table provides an illustrative land use budget for the site. It provides a use, number of storeys<sup>1</sup> and the overall floor area for each building. It also provides an indication of the level of parking required for each building, to accord with The Vale of Glamorgan Council's parking standards.

<sup>1</sup> Those units where the number of storeys shown is a requirement to achieve urban design objectives are shown with an asterisk (\*).

**Below Figure 07 Development framework** (scale 1:2,250 at A3 page size)



## Y Porth

Unit	Use	Number of storeys	Floor space (m <sup>2</sup> )	Car parking
01	Hotel (60 bedroom)	4*	2,508	Operational: 1 commercial vehicle space Non-operational: 62 spaces
02	Ancillary retail (ground floor)/ employment (first floor)	2*	557 557	Operational: 1 commercial vehicle space Non-operational: 19 spaces
03	Employment (B1/B2/B8)	1	557	19 spaces (at assumed rate of 1 space per 30 m <sup>2</sup> )
04	Employment (B1/B2/B8)	1	279	10 spaces (at assumed rate of 1 space per 30 m <sup>2</sup> )
05	Employment (B1/B2/B8)	1	279	10 spaces (at assumed rate of 1 space per 30 m <sup>2</sup> )
06	Employment (B1/B2/B8)	1	279	10 spaces (at assumed rate of 1 space per 30 m <sup>2</sup> )
07	Employment (B1/B2/B8)	1	139	5 spaces (at assumed rate of 1 space per 30 m <sup>2</sup> )
08	Employment (B1/B2/B8)	1	279	10 spaces (at assumed rate of 1 space per 30 m <sup>2</sup> )
09	Employment (B1/B2/B8)	1	139	5 spaces (at assumed rate of 1 space per 30 m <sup>2</sup> )
10	Employment (B1/B2/B8)	1	279	10 spaces (at assumed rate of 1 space per 30 m <sup>2</sup> )

Unit	Use	Number of storeys	Floor space (m <sup>2</sup> )	Car parking
11	Employment (B1/B2/B8)	1	836	28 spaces (at assumed rate of 1 space per 30 m <sup>2</sup> )
12	Employment (B1/B2/B8)	1	279	10 spaces (at assumed rate of 1 space per 30 m <sup>2</sup> )
13	Showroom	1	697	Operational: 1 space for car transporter Non-operational: 14 spaces
14	Garden centre/ farm shop	1	743	Operational: 3 commercial vehicle spaces Non-operational: 38 spaces
15	Office	2*	1,626	41 spaces (66 spaces if call centre)
16	Office	2*	1,626	41 spaces (66 spaces if call centre)
17	Office	2*	1,626	41 spaces (66 spaces if call centre)
18	Headquarter office	3*	1,510	38 spaces
19	Headquarter office	4*	3,135	79 spaces
<b>Total</b>			<b>17,930</b>	



# 6 Design guidance

## Scale, massing and height of buildings

**601** The scale of the proposed development at **Y Porth** should be seen in the context of the existing large, simple shapes of buildings nearby, such as the AML facility and building 282 ('Twin Peaks'). Views between new and existing development will also reveal large aircraft, with tail fins providing a scale of structure not often experienced in urban life. In order that the proposed development is not overwhelmed by the scale of its setting, it is important to provide visual presence through density, massing and building height.

**602** As well as having a scale that relates well to their setting, buildings must be designed to provide suitable levels of enclosure for surrounding public spaces. Building heights of between two and four storeys will generally be expected with buildings arranged to contain space within courtyard development areas, directing views out. In the 'gateway' location development should be as high as the market can support with the hotel achieving at least four storeys.

## Access, parking and circulation

**603** The design of access points to **Y Porth** will provide an attractive and welcoming point of arrival that relates well to proposed buildings and landscaping. Circulation routes will be primarily provided to the backs of buildings leaving space to the fronts for attractive public courtyards. The supporting areas to the buildings, including service areas and refuse and recycling storage areas, should be located away from the main building frontages, to the rear of buildings to help reduce their visual impact.

**604** The visual and environmental impact of large surface car parks will be minimised by substantial elements of planting and high-quality landscape. Car parks should be designed so that any large spaces are subdivided into well-defined areas,



**Left Figure 08 Aerial view of Y Porth from the east**

incorporate landscaping that responds to and enhances the local environment, and provide charging infrastructure for ultra-low emissions vehicles (ULEVs).

**605** Car and cycle parking provision will be made in accordance with the **Vale of Glamorgan Parking Standards**.<sup>1</sup> Facilities for cycle storage should be provided as part of each building plot and should be conveniently located to give easy access for staff and visitors, while retaining a high degree of security. Attractive and direct pedestrian and cycle routes will be integrated closely within the site, connecting the different business uses and supporting recreational facilities. Safe and legible routes will be provided to bus stops within a five-minute walk of the proposed development.

### Architectural appearance

**606** Good buildings have many sculptural qualities such as rhythm, pattern, colour or texture. It is these together, which give a building its architectural quality. It is also important that the appearance of the buildings is intrinsically related to all other aspects of a building: function, construction, organisation and so forth. Good architecture deals with and integrates all these issues.

**607** Plans for the site should help raise the standard of new building design and materials and create a cohesive and contemporary identity for the site. The design of all buildings should be of a high standard in order to create an attractive environment in which to work and visit. All buildings should have attractive frontages that front on

to the highway with particular attention being paid to the design and materiality of building elevations located on entrances to the site.

**608** The provision of advertisements (particularly illuminated signs) will need to be carefully designed to minimise clutter that can detract from the local character. While it is recognised that commercial businesses need to advertise their presence, this should not be achieved at the expense of visual amenity.

### Landscape

**609** The site is located on the edge of Bro Tathan, where it joins the countryside, so landscaping should reflect this with careful integration of native landscape planting. The landscape strategy for the development should provide the framework for creating a network of green infrastructure in and around the business park that will help to enhance its setting, improve the quality of the environment within the site as well as providing opportunities for informal recreation for employees and visitors.

**610** The use of appropriate quality material for fencing, walls, entrances, steps, paving and features such as pergolas or climbing plant supports, will establish the development as a high-quality environment. In accordance with the overall vision, both hard and soft landscape treatments should be designed to the highest standards to provide the best possible setting for new businesses. Comprehensive landscape schemes, including details of hard and soft landscape, should accompany all development proposals.

**611** Road verges and open areas around car parks may be suitable for swale drainage and attenuation features as part of a comprehensive sustainable drainage system. This will reduce the rate and improve the water quality of runoff from the site while introducing a different habitat with an associated increase in species diversity and amenity.

<sup>1</sup> **Vale of Glamorgan Local Development Plan 2011-2026: Supplementary Planning Guidance: Parking Standards**, The Vale of Glamorgan Council, 2019

**Below** Figure 09 View looking south-west across the junction of Ffordd Bro Tathan with Y Porth towards unit 01 (image by iCreate for Welsh Government)



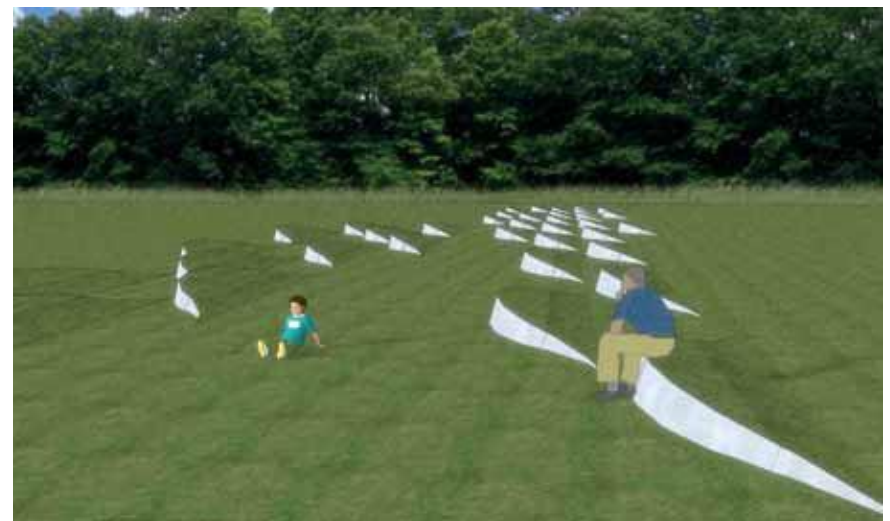
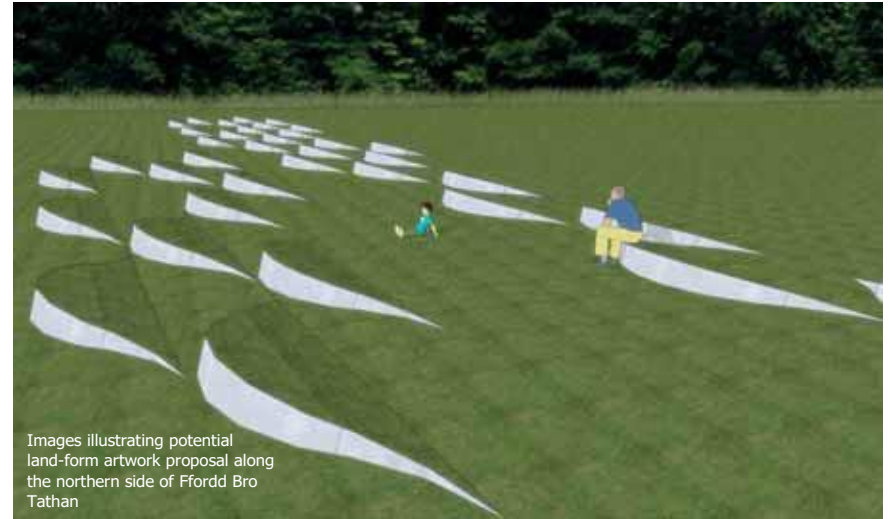


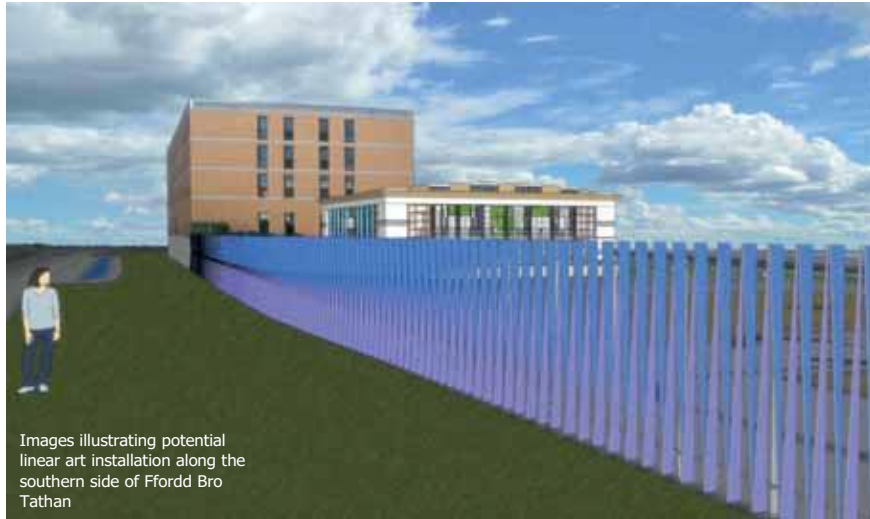
### Public art (by Simon Fenoulhet)

**612** Analysis of the principal arrival route (along Ffordd Bro Tathan from the west) – and the proposed built form and the lines of sight – suggest three opportunities for public art that will punctuate the approach to **Y Porth** and provide a strong visual message about the quality and character of the development. Public art can play an active role in reinforcing positive messages about a place by adding a sense of innovation, vitality and creativity, while taking inspiration from the location, its history, industry and culture. In this case, public art will reflect the high-grade engineering and aerospace technology that characterises Bro Tathan.

**613** When approaching Bro Tathan from the west, the first opportunity for a public art installation is the area to the north of Ffordd Bro Tathan at the western end of **Y Porth**. This is a grassed site that has no defined development role. A land-form artwork here could refer to the area's underlying limestone geology of the nearby Glamorgan Heritage Coast, animate an otherwise empty part of the site and help to spread the sense of quality and innovation to the northern part of the site in anticipation of future development.

**614** The second area encountered when approaching Bro Tathan is the northern edge of the southern part of **Y Porth**, which borders Ffordd Bro Tathan. This boundary follows the curve of the road until it culminates in the hotel site close to the junction of Ffordd Bro Tathan with the business park. A creative and innovative treatment to this boundary could draw the eye and make an early suggestion of Bro Tathan's ethos of innovation and technical excellence. A work here would necessarily have a linear emphasis; it would lead the eye, enhancing one's arrival experience along Ffordd Bro Tathan (which is at a higher level), rather than focusing it in one place, and help to screen from view the service areas of the proposed buildings on the southern part of the site. The colours used for this artwork would need to be based around the colour palette developed for the Bro Tathan site branding.

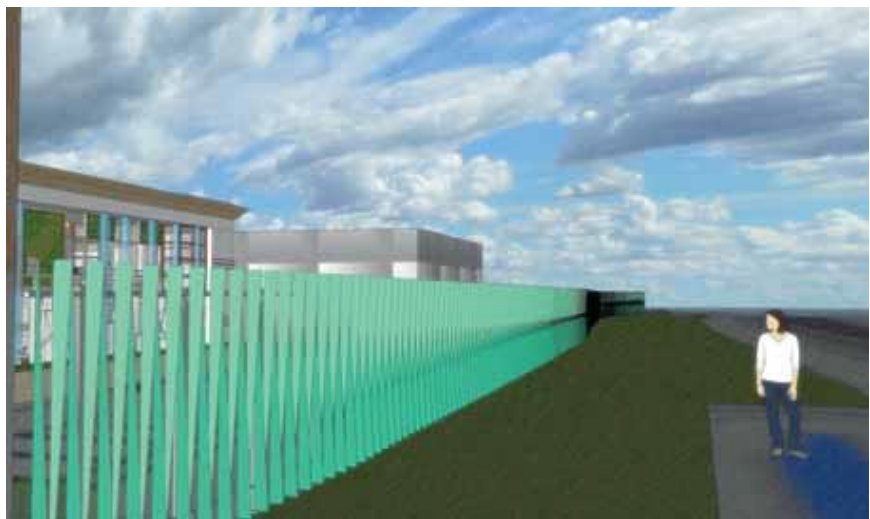




Images illustrating potential linear art installation along the southern side of Ffordd Bro Tathan



Images illustrating potential vertical artwork located at the junction of Ffordd Bro Tathan with Y Porth



**615** The third art installation will be located close to the site entrance itself, where there is an opportunity to make a bold landmark statement that will welcome visitors and send a positive message that reinforces the high design standards of the development. Scale is important here to make sure that the work has authority and is not dwarfed by adjacent buildings. A work in this location will be seen by approaching traffic and will signal one's arrival at Bro Tathan. The work will need to be tall enough to compete with nearby traffic lights and signage.

**616** It is intended that public art installations at **Y Porth** would satisfy any 'percentage for art' requirement for the whole of Bro Tathan.

### Inclusive design

**617** The Welsh Government's design guidance document, **TAN 12: Design**,<sup>2</sup> sets out (among other things) the matters that need to be considered in relation to inclusive design. It states that:

'In every area of development earlier and greater attention should be given to the needs of all sectors of society, including older people, children and disabled people. This principle applies to the design of the public realm, to public transport infrastructure and to the location, design and layout of public leisure facilities as well as the design of individual buildings.'

**618** Design features should be included to ensure that the development delivers an inclusive environment for all users. In accordance with the building regulations in Wales, all buildings must be designed to be accessible by wheelchair users. Parking

spaces should be provided close to building entrances for people with disabilities, and marked as such.

### Sustainability

**619** Sustainable building approaches must be adopted that maximise energy efficiency, improve biodiversity and minimise the environmental impact of the development over its lifetime. This should include buildings optimising passive solar gains and through the provision of high standards of insulation to enable the natural storage of heat. Buildings should use renewable energy technologies, such as photovoltaic cells and solar panels to generate as great a proportion of their intended energy consumption as possible, and ULEV charging points provided throughout the site.

**620** Development of the site should comply with the **Well-being of Future Generations (Wales) Act 2015** (WFGA). This act places a legal duty on decision makers to consider the long-term impact of their decisions, to prevent persistent problems such as poverty, health inequalities and climate change. The table opposite summarises how the development should respond to the stated goals of the **WFGA**.

<sup>2</sup> **Technical Advice Note 12: Design**, Welsh Government, March 2016.



WFGA	Description	Master-plan response
<b>A prosperous Wales</b>	An innovative, productive and low-carbon society that recognises the limits of the global environment, and therefore, uses resources efficiently and proportionately (including acting on climate change) and which develops a skilled and well-educated population in an economy that generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work.	The master plan provides nearly 7.0 ha of land for development which will provide employment and support for the local economy during its construction and occupation. Zero-carbon or energy-positive development will allow occupiers to minimise resource use and their impact on the global environment.
<b>A resilient Wales</b>	A nation that maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change).	A significant area of the site will be retained and enhanced for the benefit of biodiversity and recreation. The future impacts of climate change will be considered as part of the design process through the provision of a comprehensive sustainable drainage system to allow for increasingly severe weather events.
<b>A healthier Wales</b>	A society in which people's physical and mental well-being is maximised and in which choices and behaviours that benefit future health are understood.	The site will contribute to a network of green infrastructure assets and active travel routes that will connect to the surrounding area.
<b>A more equal Wales</b>	A society that enables people to fulfil their potential no matter what their background or circumstances (including their socio-economic background and circumstances).	Through promoting mixed-use job creation in a well-connected location, it will enable surrounding communities to benefit from new employment opportunities.
<b>A Wales of cohesive communities</b>	Attractive, viable, safe and well-connected communities.	Attractive, safe and well-maintained public spaces will encourage social interaction. The site will be well connected to surrounding areas, which will help to support existing facilities and services.
<b>A Wales of vibrant culture and thriving Welsh language</b>	A society that promotes and protects culture, heritage and the Welsh language, and which encourages people to participate in the arts, and sports and recreation.	A diverse mix of uses will introduce more activities for people living and working in the area. Public art and recreational spaces will enhance the cultural experience of the site for workers at Bro Tathan and visitors alike. Welsh-language place names and bilingual signage will support the use of the Welsh language,
<b>A globally responsible Wales</b>	A nation that, when doing anything to improve the economic, social, environmental and cultural well-being of Wales, takes account of whether doing such a thing may make a positive contribution to global well-being.	The site will realise opportunities to incorporate renewable energy technologies where feasible. Resources and materials used during the construction and occupation of the site will be sourced responsibly to minimise their wider environmental impact.







## **Appendix**





# Appendix 1

## Ancillary uses statement

### Introduction

#### Background

**A101** This statement has been prepared by **WYG** on behalf of the Welsh Ministers, outlining the relevant policy considerations for the development of ancillary retail and commercial floor space at **Y Porth**, Bro Tathan.

#### Policy context

**A102** St Athan is identified as a Strategic Opportunity Area in **The Wales Spatial Plan 2008 Update**. Bro Tathan is designated as a large employment area covered by Policy MG10 of **The Vale of Glamorgan Local Development Plan 2011-2026** (LDP), which allocates 305 ha of land at St Athan for strategic employment uses within Classes B1, B2 and B8. Policy MG13 of the **LDP** supports proposals for small shops that serve a local neighbourhood or rural village, and farm shops will be favoured outside existing retail centres.

**A103** The **LDP** Strategy acknowledges the important role St Athan will play in the future prosperity of the Vale of Glamorgan and the wider South East Wales Capital Region. **LDP** Policy SP2 seeks to maximise opportunities for new inward investment and growth, while Policy SP7 emphasises the strategic importance of a new Northern Access Road to facilitate the further development of the Aerospace Business Park at St Athan as part of the enterprise zone.

**A104** Significant levels of new housing development are also proposed to reflect the importance of St Athan to the Strategy, and to support the key employment opportunities within the area.

#### Need

**A105 Planning Policy Wales** (PPW) states, at paragraph 4.3.14, that in deciding planning applications or whether to identify sites for comparison, convenience or



other forms of retail uses in development, planning authorities should first consider whether there is a need for additional retail provision. Need may be quantitative, to address a quantifiable unmet demand, or qualitative. Paragraph 4.3.16 of **PPW** guides where qualitative assessment may become an important consideration, including: contributing to a substantial reduction in car journeys; and addressing locally defined deficiencies in provision in terms of quality and quantity. It will be for the planning authority to determine and justify the weight to be given to any qualitative assessment.

### Sequential approach

**A106 PPW** states, at paragraph 4.3.21, the sequential approach applies to retail and all other uses complementary to retail and commercial centres. Other complementary uses include, for example, financial and professional services (A2), food and drink (A3), offices (B1), hotels (C1), educational and other non-residential establishments (D1), leisure (D2) and certain other uses such as launderettes and theatres. However, **PPW** advises some education, health-care and community uses may have specific accessibility requirements that mean they need to be located close to the communities they serve. Planning authorities should be flexible in their approach where it is necessary.

### Impact

**A107 PPW** states, at paragraph 4.3.26, all retail planning applications or retail site allocations of 2,500 m<sup>2</sup> or more gross floor space that are proposed on the edge of or outside designated retail and commercial centres should, once a need has been established, be supported by a retail impact assessment. For smaller retail proposals, planning authorities will need to determine whether an assessment is necessary.

**A108 PPW** recognises, at paragraph 4.3.42, that shops ancillary to other uses, such as farm shops that will help to meet the demand for fresh produce, can also serve a useful role in rural areas by providing new sources of jobs and services.

### Ancillary uses

**A109** A business park of the scale of Bro Tathan, with its existing major employers, needs an appropriate range and scale of ancillary uses for it to function effectively.

Appropriate uses that may be provided include:

- Class A1 convenience (food) store (232 m<sup>2</sup> to 372 m<sup>2</sup> gross)
- Class A1 convenience (food) store (139 m<sup>2</sup> to 232 m<sup>2</sup> gross)
- Class A1 garden centre/farm shop (c. 743 m<sup>2</sup> gross)
- Class A3 coffee shop (139 m<sup>2</sup> to 172 m<sup>2</sup>)
- Class A3 food outlet(s) (93 m<sup>2</sup> to 139 m<sup>2</sup> gross)
- Class C1 hotel (60 to 80 bedrooms)
- Class D1 crèche
- Class D1 medical facility
- Class D2 gymnasium
- Showroom(s) for cars, boats or aircraft (sui generis).

**A110** The floor space schedule set out in section 5 describes units 02 and 14 as potential retail uses (albeit that unit 02 is two storeys and is unlikely to comprise Class A1 at first floor level).

**A111** As noted in paragraph 403, existing uses at Bro Tathan proposed to be demolished include:

- Class A1 shops (totalling c. 750 m<sup>2</sup> gross);
- Class D1 medical facility (c. 1,500 m<sup>2</sup> gross); and
- Class D2 gymnasium and cinema (totalling c. 10,800 m<sup>2</sup>).

**A112** The proposed ancillary commercial uses at **Y Porth** outlined above should be considered in this context, therefore.

**A113 Classes A1/A3 retail:** any future planning application for retail uses will need to demonstrate retail need. However, it is likely that a quantitative need for c. 750 m<sup>2</sup> of Class A1 retail will exist by virtue of the proposal to demolish that quantum of existing retail floor space at Bro Tathan; a proposal of this scale can be seen as replacing existing provision and to be ancillary to the business park as a whole. Depending on the nature of the proposed garden centre (that is, whether it constitutes a Class A1 retail facility or a sui generis facility), quantitative need for that element may need to be demonstrated. However, given the trading density of such uses and the small size of the facility (c. 743 m<sup>2</sup> gross), it is considered that the quantum of need to be demonstrated will be relatively slight.

**A114** There is also considered to be a qualitative need for ancillary retail and food and drink provision (Class A1/A3) to support **Y Porth** and replace the existing community provision to be demolished. Such provision should be suitably scaled so as to offset the loss of existing shops at Bro Tathan and address existing and future demand created by both the daytime business community and the local resident population, specifically to help minimise car journeys.

**A115** The quantum of provision anticipated is below the threshold of 2,500 m<sup>2</sup> in **PPW** where an assessment of impact is necessary, even before account is taken of the fact that some of the provision is to replace existing facilities and, therefore, can be expected to trade in a similar way with no impact on surrounding centres. Furthermore, Policy MG13 of the **LDP** supports proposals for small shops that serve a local neighbourhood or rural village and farm shops will be favoured outside existing retail centres. Finally, the impact of any garden centre will, overwhelmingly, fall on other garden centres, which tend to occupy out-of-centre locations and thus are not protected by policy. If a greater quantum of retail floor space is proposed in a future planning application, a retail impact assessment will be required.

**A116 Class C1 Hotel: Technical Advice Note 4: Retail and Commercial Development** advises the need and impact tests apply to retail uses, not commercial uses. Previous planning permission at Bro Tathan included a hotel use.<sup>1</sup> The hotel use at **Y Porth** is anticipated to be smaller than that previously consented but is seen as a vital element for the future success of the business park. The significance of the park is such that there will be a need for a hotel facility generated by the park itself. The hotel will be scaled so as to principally serve a very localised catchment, and sustainably located in close proximity to the services it is intended to serve.

**A117 Classes D1/D2 uses:** it is anticipated visitors to **Y Porth**, Bro Tathan will require replacement ancillary health-care and community uses including a gymnasium, which for accessibility/sustainability reasons should be located close to the facilities they serve, as recognised by **PPW**. As set out above in respect of retail proposals, this can be seen a replacing existing provision to be demolished and thus will maintain the status quo and ensure the business and resident community continue to be served.





