

Parc Busnes Porth Cymru

Design Brief



July 2019
(v6)



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Transport

Drainage

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1. Introduction

1.1 Introduction

This Design Brief has been prepared by RPS on behalf of Legal and General (Strategic Land) Ltd for the development known as Parc Busnes Porth Cymru. It represents the culmination of a collaborative design process between Legal and General, the RPS design team including masterplanning and urban design, landscape architecture, ecology, green infrastructure, highways engineering, flood management, archaeology, arboriculture and the Vale of Glamorgan Council planning officers, councillors and the Cardiff Airport Authority have also been consulted and views taken into account in developing these proposals.

1.2 Objectives of the Design Brief

The formal written response to the pre-application planning enquiry submitted by RPS in November 2018 to the Vale of Glamorgan Council identified the requirement for a design brief to support the outline planning application *'that will inform the phasing of the development and the design approach, and act as a guide for the subsequent application(s). There is a strong emphasis on high quality of design within local planning policies, Planning Policy Wales (Ed.11) and Technical Advice Note 12 – Design. In promoting the business park as a strategic location within the Vale, a high quality of design and materials is expected throughout the development. There is an opportunity to consider the provision of landmark buildings within the site.'*

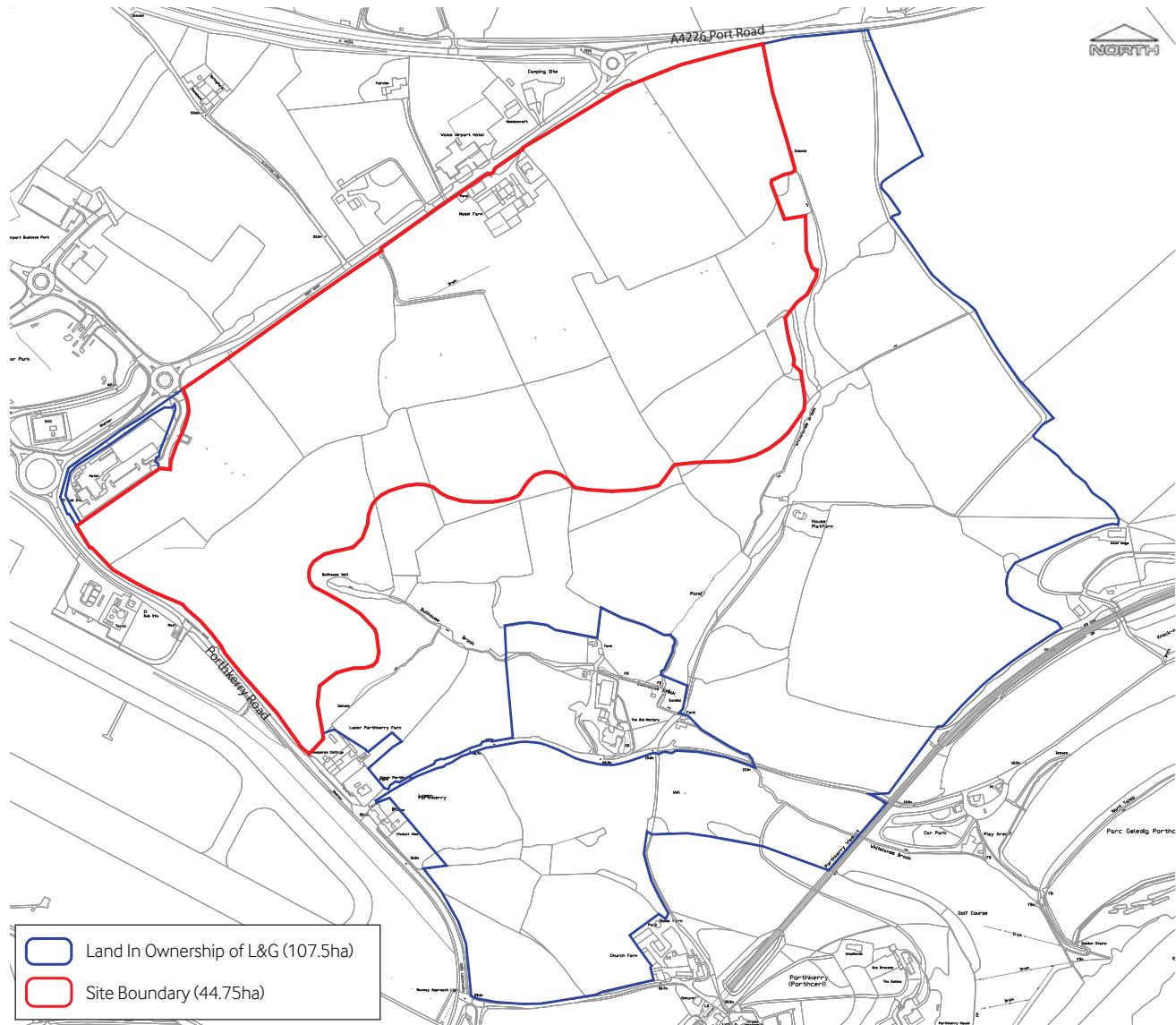
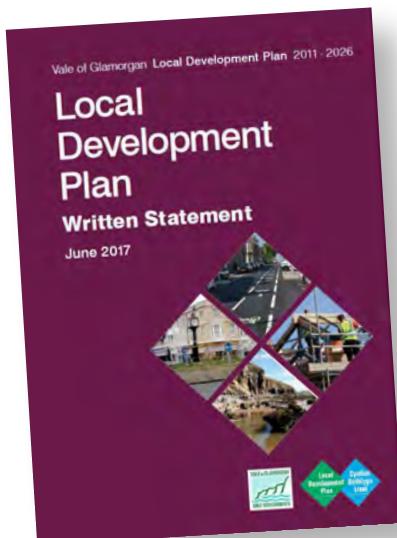


2. Planning Context

2.1 Planning Context

The application site is allocated under Policies MG9 and MG10 in the Adopted Vale of Glamorgan Local Development Plan (2011 – 2026). The site forms part of a wider allocation under Policy MG9 for 77.4ha of Class B1, B2 and B8 uses and is intended to cater specifically for the needs of the aerospace industry and high-tech manufacturing, encouraging investment from the regional and sub regional market place.

Policy MG10 allocates 77ha of land adjacent to Cardiff Airport and Port Road and 305ha of land at St Athan for the development of 382 hectares of strategic employment land (B1/B2/B8) forming part of the St Athan – Cardiff Airport Enterprise Zone. The Policy states that development of the enterprise zone will be guided by a Masterplan, to be prepared by Welsh Government.

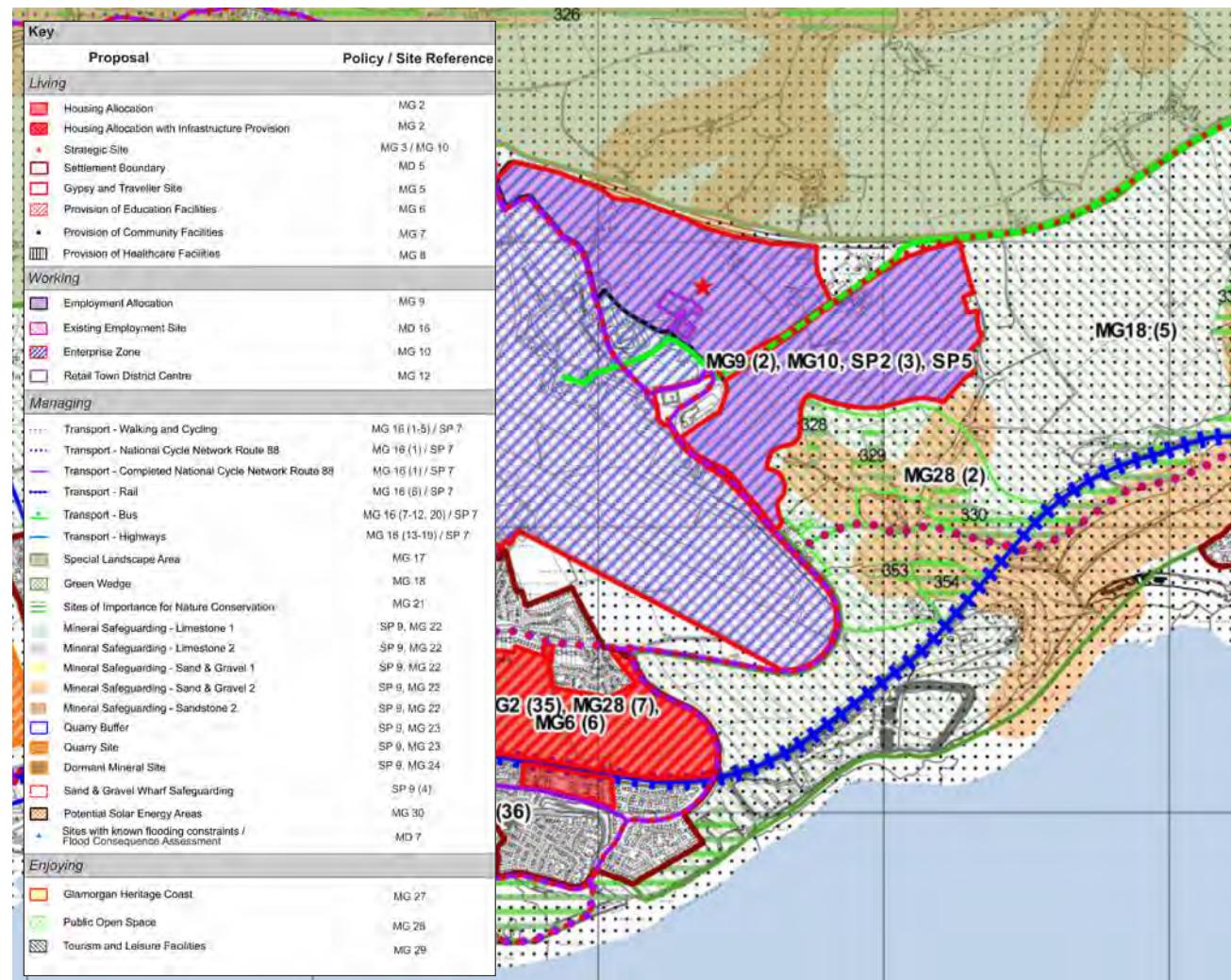


The Masterplan is still in draft form, but Policy MG10 makes it clear it must include Class B1, B2 and B8 uses, land for the extension of Porthkerry Country Park, the provision of an energy centre to ensure high sustainability credentials and sustainable transport infrastructure.

Policy MG10 echoes MG9 in that the site is not allocated to meet market demand for general industrial or office uses, but rather to accommodate business and employment uses catering specifically for the aerospace industry and high-tech manufacturing.

With regard to general design policies, Policy MD2 requires new development proposals to comply with twelve criteria including:

- Achieving a high standard of design (1)
- Having no unacceptable impact on highway safety (6)
- Incorporating sensitive landscaping, including retention and enhancement where appropriate (10)



Extract from Vale of Glamorgan Local Development Plan Proposals Map

3. Design Principles

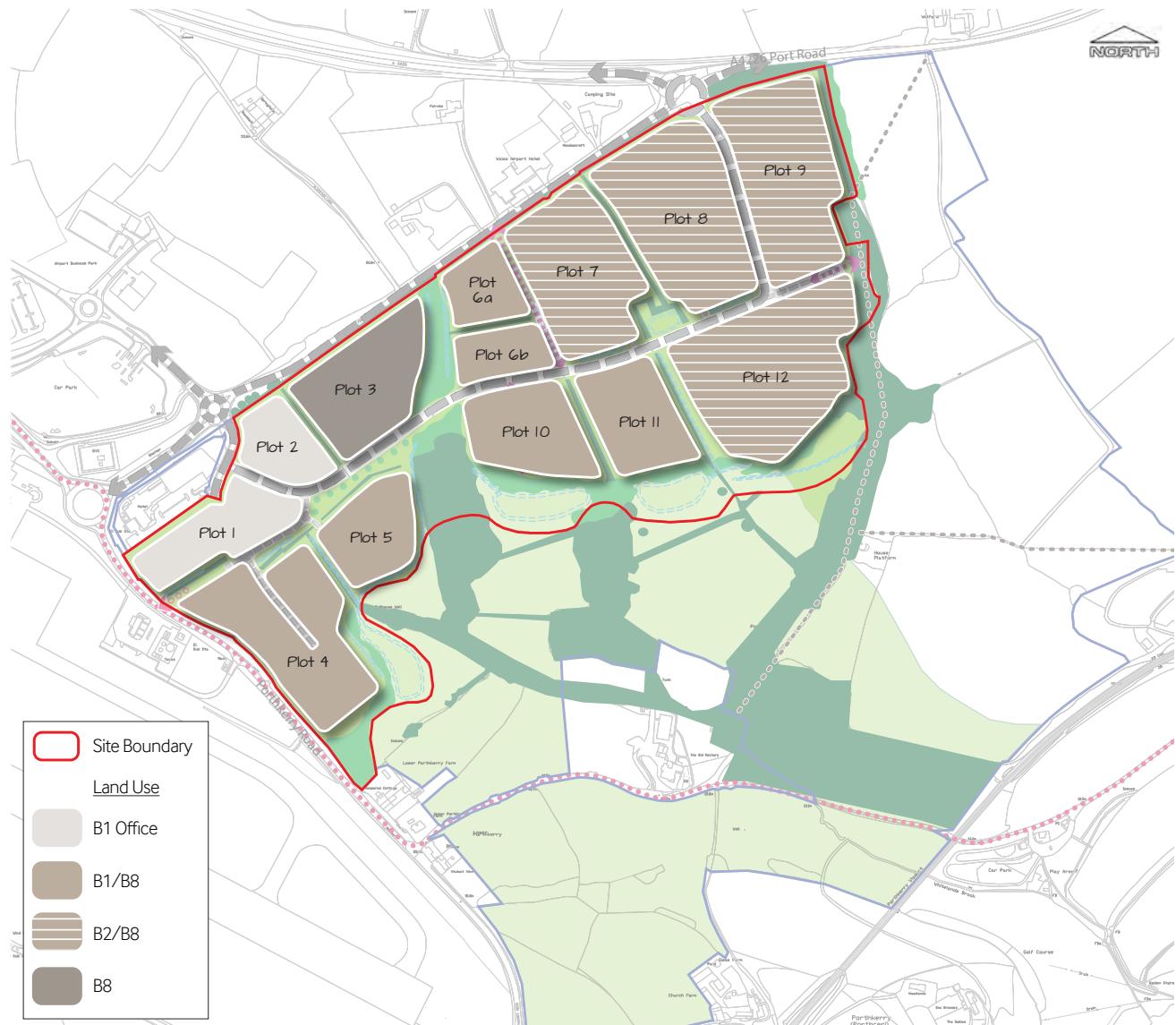
3.1 Design Principles

This section provides the guiding design principles for the outline planning application and should be used to guide any further detailed design proposals for future reserved matters applications. These design principles are fundamental to the design development process for the proposed scheme of development and are also set out in the accompanying Design and Access Statement.

Design Principle 1 – Land Use

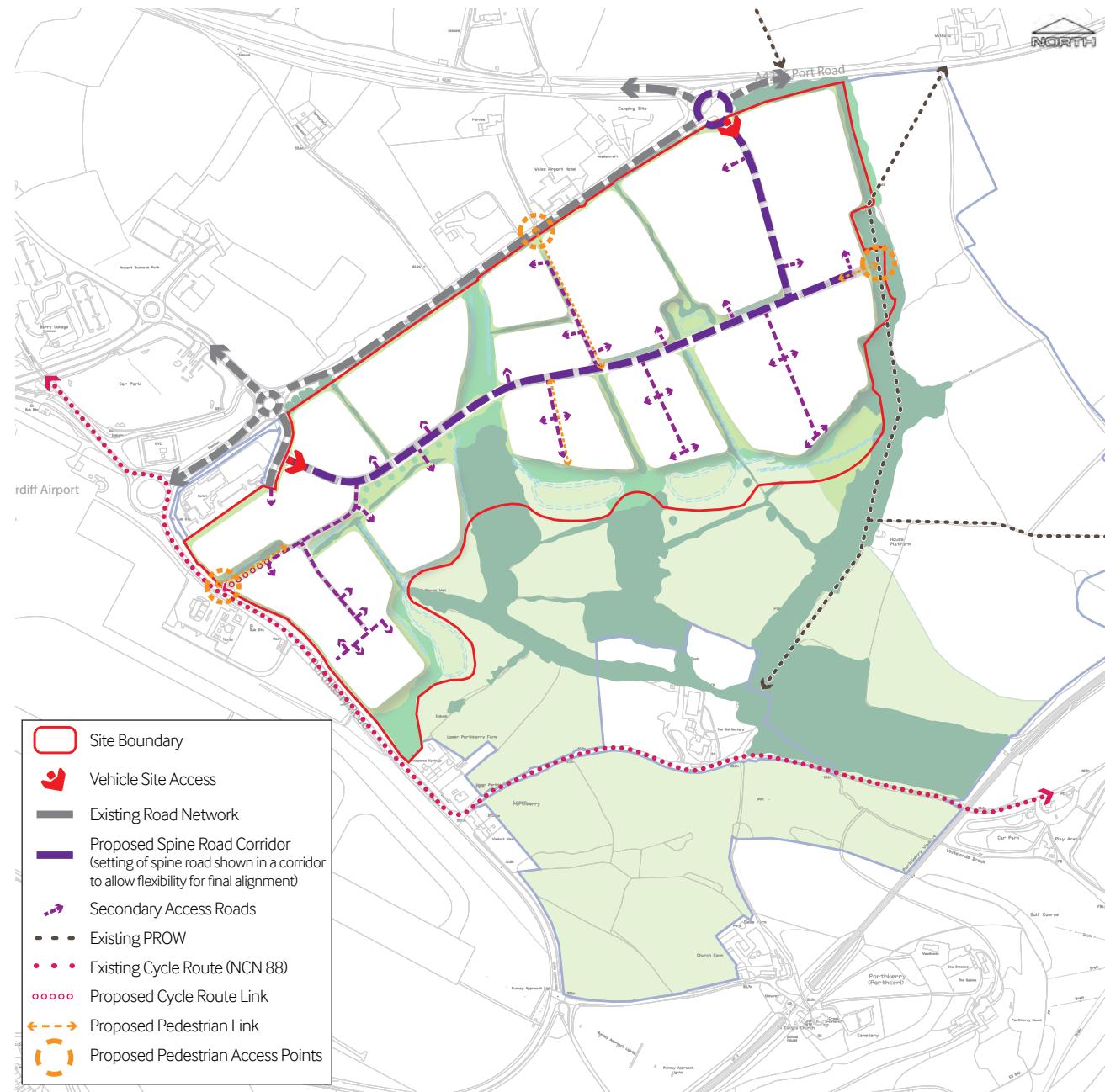
The following land uses shall be accommodated within the proposed development:

- B1, B2 and B8 (up to 31ha)
- Existing retained green infrastructure
- Green infrastructure and public open space (7.73ha)
- New spine road corridor
- Public footpaths
- Land expansion to Porthkerry Country Park (up to 42ha)



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

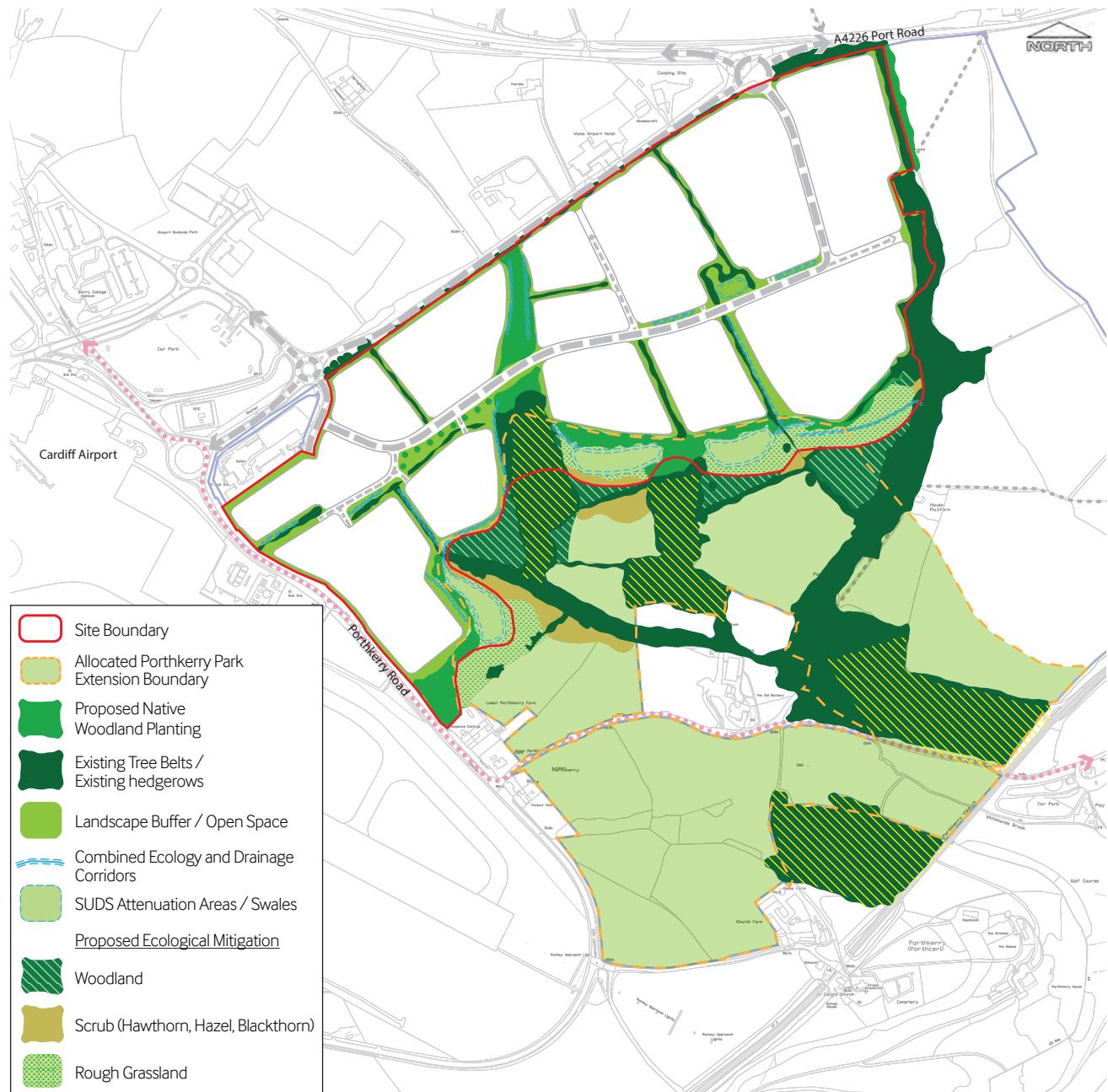
Vehicle access has been designed to ensure that the development will not adversely impact the operation of the existing highway network. The two access points will deliver infrastructure that will provide sufficient junction capacity up to a design year of 2029. To ensure that the site is accessible by sustainable methods of travel the high-quality Spine Road, which will route between the two points of access will provide a footway and a shared use foot/cycle way providing a walking and cycling route through the site with connections to the existing walking and cycling network and the proposed extension to the Porthkerry Country Park. Additionally, the Spine Road will incorporate bus stops to enable public transport to penetrate the site. This infrastructure and 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 – Green Infrastructure Strategy

The site lies on heavily improved agricultural land divided by managed hedgerows. These features have low value in terms of recreation and ecology. Green infrastructure has been designed into the scheme through the incorporation of existing semi-natural features and provision of new green space in a network of connected features within and adjoining the scheme.

- Retention of existing landscape features which contribute to the local character of the area.
- Protection of Whitelands Brook corridor adjoining the eastern site boundary
- Incorporation of much of the existing hedgerow network and landscape buffers into the scheme layout
- Provision of functional greenspace of biodiversity value as part of the SUDS scheme (swales, attenuation areas and ditches)
- Off-site native woodland and scrub planting
- Links to public rights of way through high quality green space
- Connection to existing cycleway.



Design Principle 4 – **SuDS and Drainage**

The SuDS and Drainage Assessment reviews existing surface water and foul water drainage arrangements at the site and presents a strategy for managing surface water and foul water from the developed site.

Surface Water

Surface water from the existing site is believed to be directed overland to the lower areas to the southwest of the site towards the Bullhouse Brook and Whitelands Brook.

Surface water from the proposed development will be treated and controlled at source wherever possible and then directed to the existing watercourses via new outfalls utilising a variety of sustainable drainage measures.

Surface water runoff from impermeable surfaces will be restricted to existing greenfield runoff rates through the provision of green swales, end of pipe detention basins and low-tech complex control chambers (SuDS Site Control Structures).

The proposed surface water drainage scheme provides SuDS elements to control the disposal of runoff from the redeveloped site and to provide quality treatment via a SuDS treatment train.

Foul Water

Foul water for the development would drain by gravity to the existing DCWW Porthkerry foul water pumping station. Foul water would then be pumped via the existing 350mm dia. rising main to the east of the site.

The proposed foul water pipe network and the upgraded foul pumping station would be designed to adoptable standards.

