

Hywel Dda Urgent & Planned Care Hospital

## Summary Technical Appraisal Report

Site C

**BDP.** **WSP** **mace** **gleeds**<sup>®</sup>



**GIG**  
CYMRU  
**NHS**  
WALES

Bwrdd Iechyd Prifysgol  
Hywel Dda  
University Health Board

## Contents

Executive Summary	4
1.0 Introduction	5
2.0 Drainage	8
3.0 Ground Conditions	9
4.0 Utilities	10
5.0 Local Transport Infrastructure	11
6.0 Flood Risk	12
7.0 Ecology	13
8.0 Environmental Appraisal	14
9.0 Design	15
10.0 BREEAM	16
11.0 Town Planning and Acquisition	17
12.0 Travel Time Analysis	18
Appendix A: Utilities Constraints Plan	
Appendix B: Proposed Highways Infrastructure	
Appendix C: Agricultural Classification Map	
Appendix D: Environmental Constraints Plan	

## Summary Table of Scoring Criteria

This summary report is based on information contained in a more detailed technical appraisal document. The structure of this report is based on the format of the technical appraisal work undertaken by the consultant team on behalf of Hywel Dda University Health Board. The table below shows how the section of this report are relevant to the key scoring criteria identified through the previous public consultation exercise

<b>Section No.</b>	<b>Description</b>	<b><i>Criteria which is informed by this information for scoring</i></b>	<b><i>Criteria Description</i></b>
1.0	Introduction	<i>All</i>	
2.0	Drainage	<i>Criteria 1</i>	<i>Site conditions</i>
3.0	Ground Conditions	<i>Criteria 1</i>	<i>Site conditions</i>
4.0	Utilities	<i>Criteria 1 &amp; 2</i>	<i>Site conditions/Site Infrastructure</i>
5.0	Local Transport Infrastructure	<i>Criteria 2</i>	<i>Site Infrastructure</i>
6.0	Flood Risk	<i>Criteria 3</i>	<i>Environment &amp; Ecology</i>
7.0	Ecology	<i>Criteria 3</i>	<i>Environment &amp; Ecology</i>
8.0	Environmental Appraisal	<i>Criteria 3</i>	<i>Environment &amp; Ecology</i>
9.0	Design	<i>Criteria 4</i>	<i>Design</i>
10.0	BREEAM	<i>Criteria 5</i>	<i>Sustainability</i>
11.0	Town Planning and Acquisition	<i>Criteria 6</i>	<i>Planning &amp; Acquisition</i>
12.0	Travel Time Analysis	<i>Criteria 7</i>	<i>Transport (Travel Time Analysis)</i>

## Executive Summary

Site C lies a short distance to the east of Whitland Town Centre. The A40 is located less than one mile to the North.

The site is within reasonable walking distance from Whitland town centre and the railway station. There is a comprehensive existing road infrastructure providing access to the site, providing both primary and secondary resilient access routes. Some upgrade works will be required to address access requirements which will require purchase of some additional third party land however, this is not considered as unusual for major hospital developments.

The site is considered 'greenfield' with its predominant current use being agricultural with associated buildings. This site is in public ownership and was nominated by the public landowner during the public engagement period May – June 2021.

The site slopes downwards from north to south with a difference of approximately 40m between the high and low points.

A review of historical information and a desktop based study has indicated that no significant sources of contamination are expected.

Similarly no significant ground condition constraints have been identified

An environmental appraisal was undertaken to determine the likelihood of significant environmental effects. Potential environmental effects cannot be ruled out at this stage, and therefore, a statutory Environmental Impact Assessment is likely to be required to support a planning application.

Development of this site has the potential to increase the amount of phosphates in the Afon Taf, however there are currently no constraints regarding the prevention of phosphate pollution in the river.

Most services utilities are available local to the site. Water supplies and drainage connections are likely to require significant upgrade although the extent of this can only be established as more detailed design work is completed. Two high pressure gas mains cross the site and diversion of both pipes is likely as part of the construction works and may incur significant cost.

Due to the size of the site there is potential to create space for on-site renewables such as Solar Panels (PVs)



## 1.0 Introduction

A shortlist of potential viable sites for the provision of a new Urgent and Planned Care Hospital has been determined. The shortlist sites are:

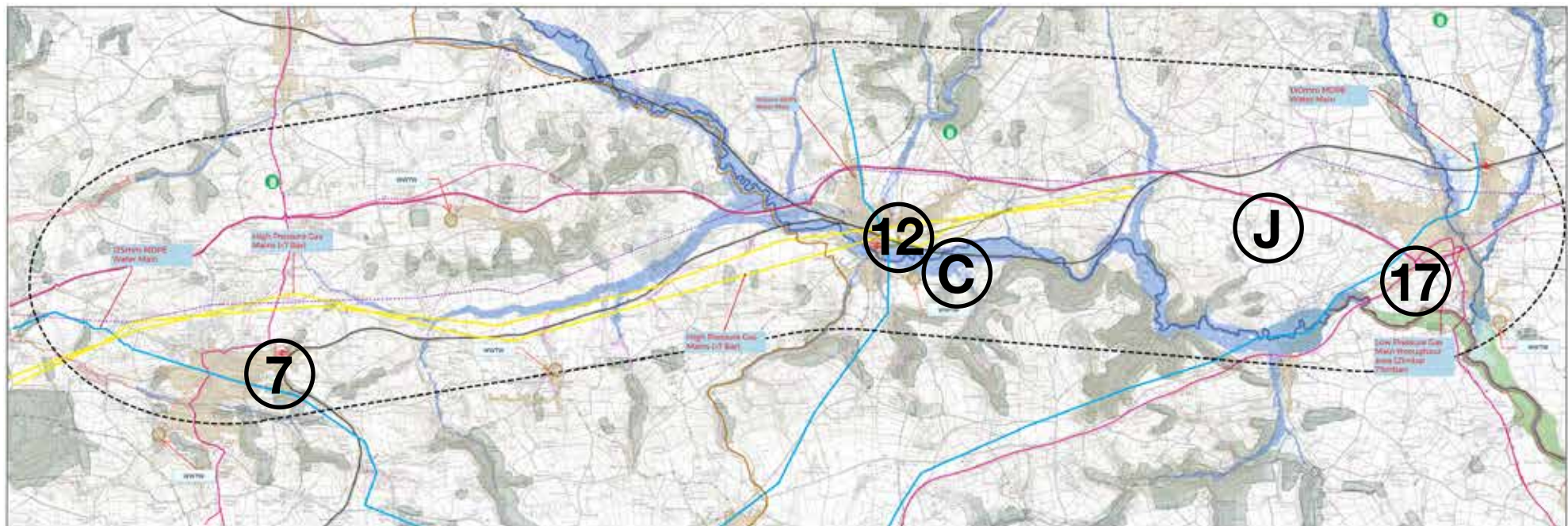
- Site 7
- Site 12
- Site 17
- Site C
- Site J

This report provides summary information on the potential development of site C for the proposed new Urgent and Planned Care Hospital. It covers information obtained by the technical advisory team engaged by Hywel Dda University Health Board to support with the development planning for the new hospital. Separate reports will cover the other four sites.

Key items covered in this report include:

- Site location
- Drainage
- Flood Risk
- Transport
- Utilities - power, water, gas, telecoms
- Ecology
- Environmental Appraisal
- Ground Conditions
- Town Planning & Land Acquisition
- BREEAM
- Design

The content of this report summarises the large extent of information available to the project team about potential sites.



**Fig. 1.1 - Overview map of the selected development zone identifying the shortlisted sites**

## 1.0 Introduction

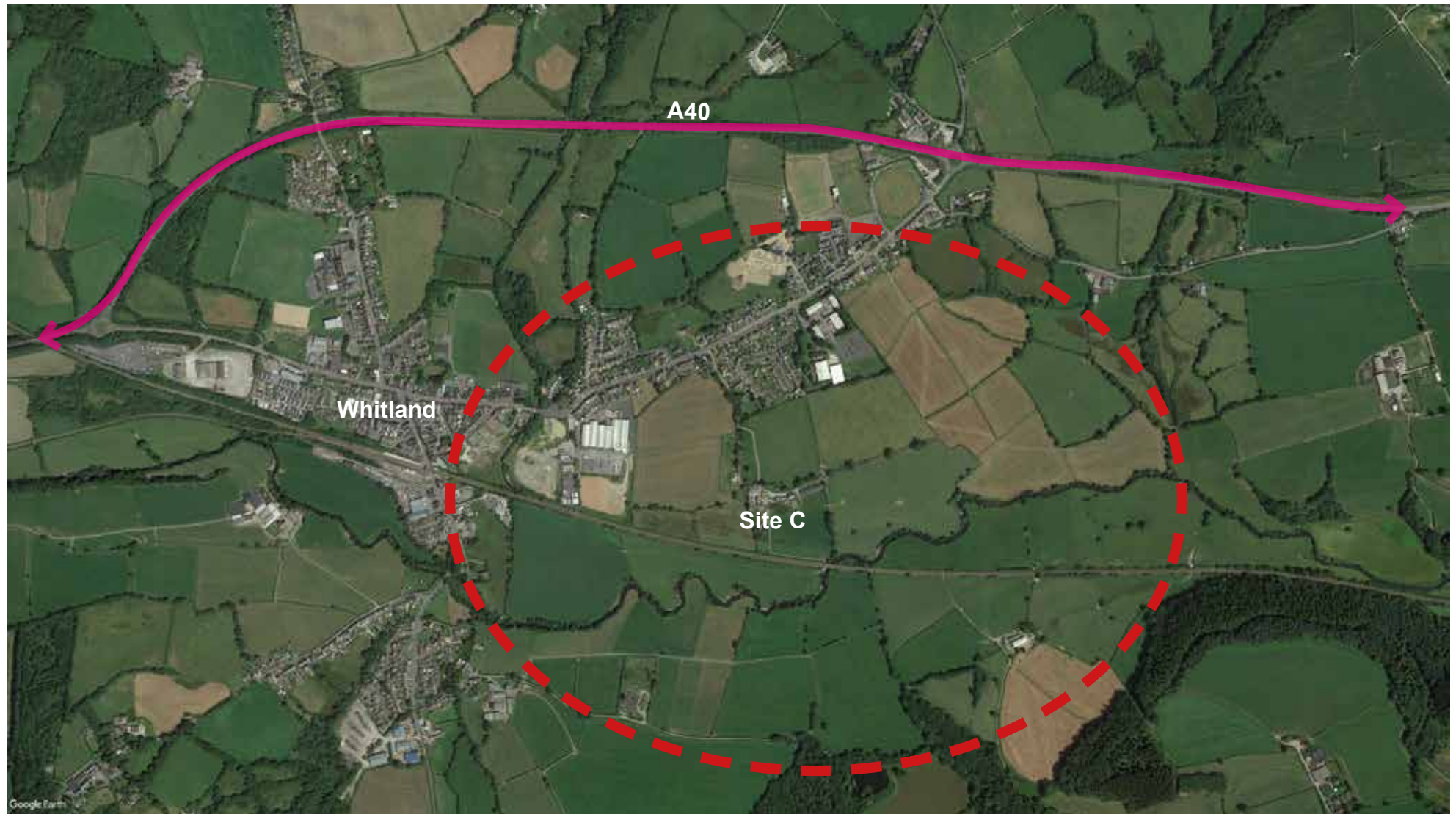


Fig. 1.2 - Aerial location plan showing the location of site C (in red) in relation to Whitland town centre and the A40



## 1.0 Introduction

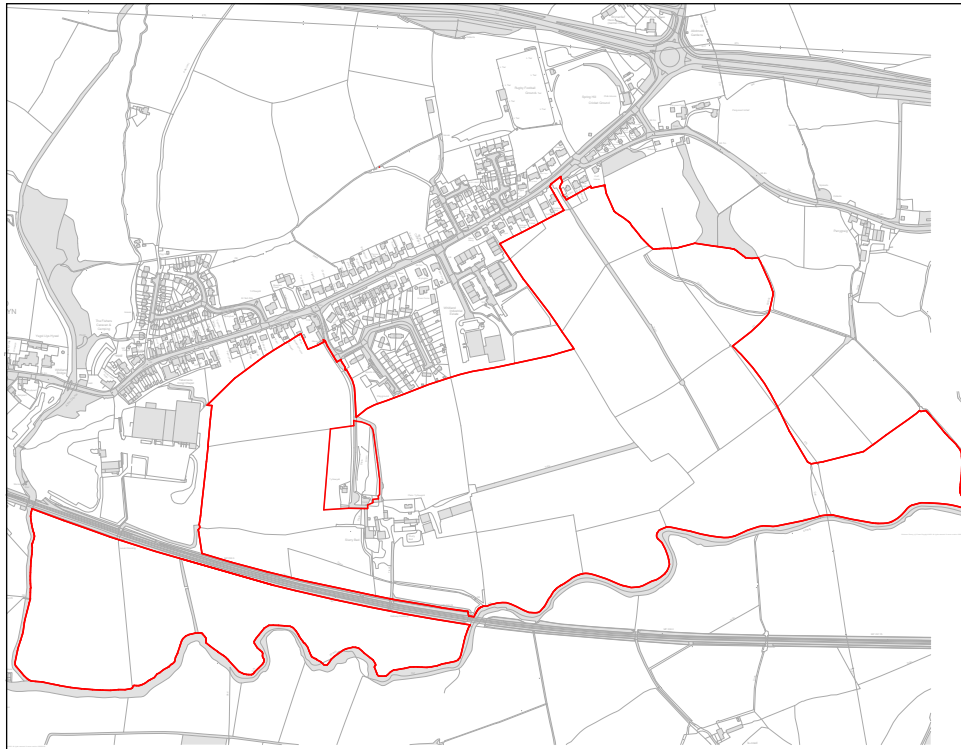


Fig. 1.3 - Ordnance survey plan showing the site boundary in red

### 1.1 Site Location

The site is located directly to the east of central Whitland and has a British National Grid Reference of 221000, 216400.

The northern boundary is formed by the rear of the residential areas along the B4328 and the western boundary is the old Whitland Creamery site. The eastern boundary is formed by agricultural land and the southern boundary by the Afon Taf. The main Swansea to West Wales railway line runs through the southern portion of the site.

The residential property, Ty Newydd, forms an enclave within the site.

### 1.2 Site Description

The site is considered to be greenfield, is approximately 63.4 ha in size and has historically been used for agricultural purposes. The agricultural holding includes Ty Newydd Farm in the centre of the site and the residential property also known as Ty Newydd is adjacent but not part of the site. The site slopes from north to south with a high point of approximately 52m above datum and a low point of 14m. The site is located approximately 300m to the east of Whitland Station.

The site contains areas of Development Advice Map Zones A, B and C2. DAM Zone C2 is an area considered to be risk of fluvial or coastal/tidal flooding, Zone B is an area that has flooded in the past and Zone A is considered to be at little or no risk.

A listed structure, Trevaughan Bridge is located approximately 125m to the west of the site.

The site is not located in any statutory designated sites (Ramsar, Sites of Special Scientific Interest (SSSI), Special Areas of Conservation (SAC), Special Protection Areas (SAC)).

A number of residential properties are located immediately to the north of the site boundary on Spring Gardens and Bryngwenllian.

2.0 Drainage



Fig. 2.1 - Existing sewerage infrastructure

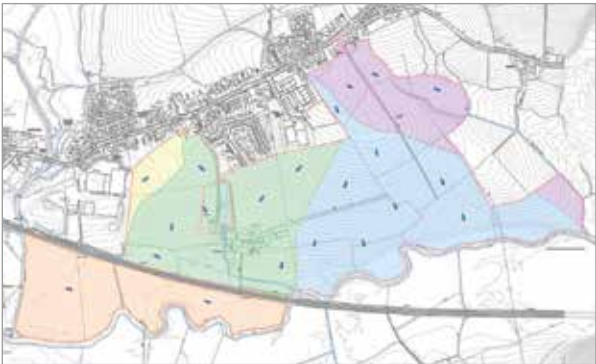


Fig. 2.2 - Existing surface water catchment

2.1 Existing Drainage

The site lies adjacent to the catchment of the Whitland Wastewater Treatment Works. A 150mm public combined gravity sewer serving the Bryngwenllian residential development routes through the site from the west of Bryngwenllian before routing northwards towards Spring Gardens through Dolwerdd.

No records of drainage are available for Ty Newydd (enclaved within the site) or Fferm Ty Newydd to confirm their drainage arrangements. However, it is assumed that they are served by private drainage.

2.2 Surface Water Drainage

The aim of the surface water drainage strategy is to mimic the natural catchment processes as closely as possible and adopt the principles of Sustainable surface water management.

Surface water will either be discharged into the ground via infiltration or into the adjacent watercourses via a controlled discharge. Storage provision would be provided within the site for all storm events up to and including the 100- year return period plus climate change.

Infiltration is the preferred method of disposal but if this is not feasible due to local ground conditions then runoff would be discharged at an agreed rate, which would be no greater than existing, into the existing land drainage features.

2.3 Water Quality / Phosphates

The site does not lie within a Special Area of Conservation or have any discharge into a watercourse within the catchment of a riverine SAC, and as such is not subject to any additional requirements or constraints around prevention of phosphate pollution associated with new developments.

### 3.0 Ground Conditions

The site is considered to be in an area of moderate environmental sensitivity.

The southern area of the site, adjacent to the Afon Taf, is reported to be underlain by Alluvium (Secondary A Aquifer) with the bedrock comprising the Arenig Tetragraptus Beds (Mudstone) in the north-eastern and the Lower Llanvirn Didymograptus Bifidus Beds (Mudstone) in the central and south-western areas of the site. Both bedrock units are classified as Secondary B Aquifers.

Groundwater vulnerability across the site is reported to be high, associated with a well-connected fracture flow network within the underlying bedrock, and local small-scale domestic abstraction has been noted to have historically occurred within the area. A former well is understood to be located within the farm compound although the status of this is unknown.

Several minor surface water features have been identified on-site which are considered to comprise tributaries to the Afon Taf and Afon Gronw which are located on the southern and south-western site boundaries, respectively.

The online Flood Risk Development Advice Map provided by Natural Resources Wales indicates that the northern area of the site is located within Zone A, which is

classified as “at little or no risk of fluvial or coastal/tidal flooding.” However, the southern half of the site ranges from Zone B and Zone C2 which are defined as areas “known to have flooded in the past” and “without significant flood defence infrastructure”.

The online Flood Risk Assessment Wales Map provided indicates that the area to the south of the railway line is located within Flood Zone 3 which is defined as the extent of a flood from rivers with a 1 in 100 chance or greater of happening in any given year. Flood Zone 3 is also present to the north of the railway line in the central and eastern areas of the site.

The majority of the site is located within an area where either less than 1% or between 1% and 3% of properties are estimated to exceed the Radon Action Level. In these areas basic radon protection measures are not considered necessary. However, an area at the northern edge of the site shows that between 5% and 10% of properties exceed the Radon Action Level. As such basic radon protection measures would likely be required within future structures.

No significant ground condition constraints have been identified in the northern area of the site in relation to future structures and infrastructure. However, the site slopes downwards from the north to the south

and earthworks may be required to provide an appropriate development platform.

It is considered that the majority of the site is unlikely to be impacted by contamination. However, the potential exists for current and historical land use activities on and off-site to have led to localised contamination at the site. The most noticeable sources of potential contamination comprise the poorly contained on-site fuel oil storage tanks. Off-site sources of potential contamination include a former gas works, an industrial estate and a cemetery.

Within the context of the proposed development of the site as a health care facility/hospital the undertaking of a preliminary land quality assessment has indicated that the risks presented to potential receptors (health of future site users, controlled waters and infrastructure) from localised potential sources of contamination are considered to be typically low.

## 4.0 Utilities

### 4.1 Existing utilities infrastructure

#### Power

There are existing 11kV power supplies crossing the site from east to west and 33kV supplies crossing the site from North to South, both are likely to require diversion.

#### Water

The existing properties off the B4328 are fed off a 75mm supply running down the road. There is an existing 150mm supply running south to north on the west of the site leading to the former creamery works to the west.

Connecting to this is a 150mm main running east to west across the site which would need to be diverted or the site layout coordinated with the supply. This supply appears to supply the properties in Spring Gardens and Bryngwenllian in addition to the supply from the B4328.

#### Gas

There are existing low pressure gas mains running along the B4328, which supply the residential properties along Spring Gardens and Bryngwenllian.

Two high pressure gas mains crossing the site. These have significant wayleave requirements and will need to be considered with planning of the site layout. If required, the diversion of these gas mains is likely to cost in the region of £5-7M. At the next stage, the site layout can be assessed to check the impact on the gas mains and proximity of any buildings.

#### Telecommunications & Digital

There is currently Openreach infrastructure running along the B4328, but there are no known services crossing the site that will require diversion.

#### Water

This system will need to be assessed for capacity by DCWW however, we would expect to provide onsite storage for both domestic use and fire fighting to reduce the impact on the existing DCWW infrastructure.

#### Gas

In line with the current decarbonisation aspirations, there is no intention for large scale gas use on site. There are however existing local low-pressure mains in the area to supply any small scale requirements.

### 4.2 New Supply / Connections

#### Power

Based on the requirements of an all-electrical site upgrade works will be required to the primary 11kV Switchgear at the Whitland primary and new cables will be required from the primary to the site. Upgrades would also be required to the primary transformer from 5/6.5MVA to 7.5/15MVA. This will provide the site with a 6.5MW supply with a dedicated Substation. This also allows for a diverse route for the cabling to site in accordance with Healthcare design guidance albeit not from separate substations.

#### Telecommunications & Digital

It is likely that a new high speed connection will be required to serve the proposed scheme. Openreach are in the process of upgrading their networks and this would need to be assessed closer to the construction stage.

#### Renewables

Due to the size of the site, there is the potential to locate solar power cells (PVs) towards the south of the site or on the other side of the railway. PVs would require approx. 10 acres of suitable land to meet the demand of the proposed Urgent & Planned Care Hospital scheme and a dedicated supply cable to the site substation from the PV array.

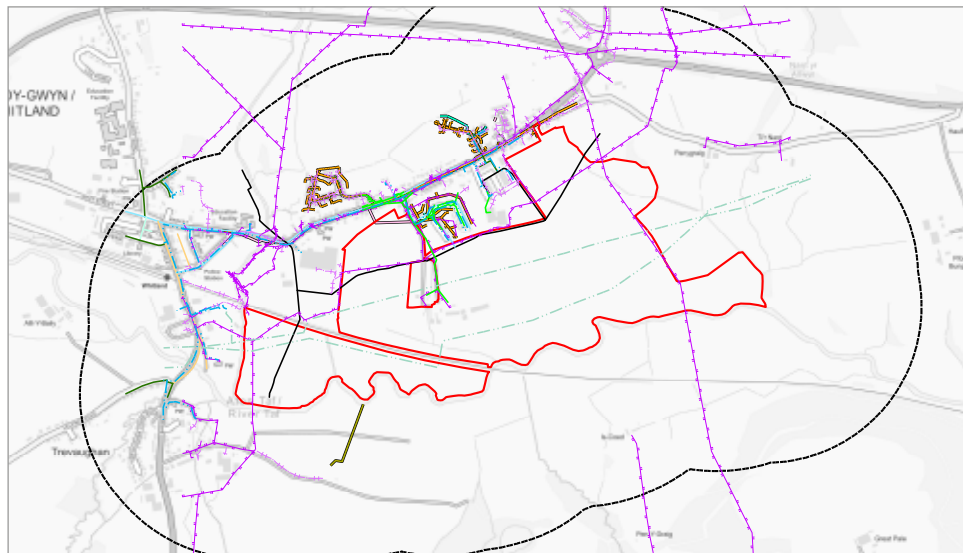


Fig. 4.1 - Plan showing the extent of existing services utilities infrastructure (as included in appendix A)

## 5.0 Local Transport Infrastructure

This section evaluates the accessibility to the site and considers the current provision surrounding the site for different mode of transport, importantly for walking, cycling and public transport in line with the Active Travel aspirations of the Welsh Government, while identifying opportunities for improving the provision for all transport modes to the site.

### 5.1 Walking and Cycling

A number of locations along the B4328 (Spring Gardens) have been identified for providing Active Travel access to the site and also there is an opportunity to connect pedestrians and cyclists directly to the Whitland Train Station, this would however require the purchase of third-party land.

There is currently footway provision along the B4328 adjacent to the site at a width of 1.5 – 2.5 metres. There is however a gap in the footway along the southern extent of the carriageway. In places the footway is also narrowed by adjacent buildings and by vehicles using the footway for parking.

Active travel to the rail station in Whitland is considered key to the feasibility of this development due to this being the main form of public transport within the immediate vicinity of site.

### 5.2 Bus Services

There are existing bus stops along the B4328 adjacent to the site however the services which use these stops are infrequent and short. This is not favourable for the shift working patterns associated with hospitals, and therefore the possibility of providing more frequent and longer services on the existing bus routes need to be explored.

Existing bus services extend to Carmarthen to the east and Haverfordwest to the west, including the 322 services which stops at Withybush Hospital.

### 5.3 Train

The Whitland Rail Station is located within 250m of the western edge of site C and approximately 750m walking distance from the closest existing access to the site (off B4328 Spring Gardens), which is greater than the recommended walking distance of 400m. It is therefore important that the possibility of connecting the site directly to the rail station be further investigated. This will require the purchase of third-party land however the use of the train and a short walk or cycle could be a viable option for a large number of staff and visitors to the hospital.

The possibility of increasing the frequency of services and or providing a local stopper service at the train station will need to be further explored.

### 5.4 Highway / General

There is no direct access from the A40 to the site and therefore traffic would use the existing A40 roundabout at the junction of the B4328 and use local roads to access the site. The local roads do not appear to suffer from significant congestion during the typical weekday however the impact of the hospital on the local roads would need to be investigated as part of a Transport Assessment moving forwards.

Access to the wider area to the west, north and east would be via the A40. Southbound traffic would have to use local roads through Whitland and in this case there may be the need for traffic calming measures or highway improvements in the town centre.

There are improvements works underway along the A40 as part of the Llanddewi Velfrey to Redstone Cross improvements and therefore the impact of the scheme on the proposed hospital at site C would have to be further investigated. Moreover, the traffic along the A40 is known to be very seasonal, with high volumes during the summer school holiday period and therefore any transport assessment undertaken for site C would have to investigate the implication of the seasonal variation in flows.



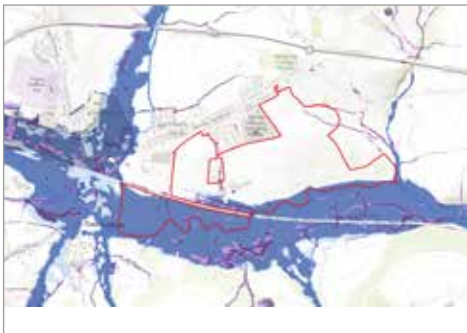
## 6.0 Flood Risk

### 6.1 Site Context

The site lies adjacent to the Afon Taf, which forms the southern boundary of the site. To the east of the site lies the Nant Yr Allwyn, a minor watercourse which discharges into the Afon Taf at the south-eastern boundary.

The first minor watercourse is located adjacent to the northern embankment of the railway. It discharges into the Afon Taf adjacent to the railway bridge. It is also thought that there may be a culvert structure that passes through the railway embankment and into the third minor watercourse recorded at the site.

The second minor watercourse routes southwards along the access track to Fferm Ty Newydd, into a pond within the farm, to the south where it converges with a secondary reach, and then routes eastwards towards the Afon Taf.



**Fig. 6.1 - Extract from natural Resources Wales Flood Risk map**

The third minor watercourse is an open channel bisecting the southern portion of the site, routing from the railway embankment down to the Afon Taf. It is thought that the first minor watercourse may communicate with this watercourse via a culvert structure under the embankment.

The fourth minor watercourse lies at the north-east of the site, and is a reach of the Nant yr Allwyn. This routes through the site, discharging into the Nant yr Allwyn.

### 6.2 Flood Risk

The NRW modelled flood risk extents, reproduced in Figure 3-3, highlight a number of areas of high and medium flood risk from surface water and minor watercourses. The primary areas of flood risk within the site are coincident with the existing minor watercourses and low ground levels.

Most of the are to the south of the railway line lies in an area considered to be a high risk of fluvial flooding, with areas of medium and low risk approaching the north-western corner.

To the north of the railway line, the low lying area adjacent to the Afon Taf is all considered to be at high risk of flooding. Furthermore, flood waters appear to back

up into the minor watercourse that routes through Fferm Ty Newydd, with areas of low, medium and high-risk present along its course south of the farm buildings.

Flood risk posed by the site by groundwater is likely to be dominated by the minor watercourses running through the site, and the main rivers to the west. As groundwater tends to emerge slowly, it is thought that the flood risk posed by the minor watercourses is more significant than that of groundwater.

### 6.3 Access Routes

Primary access to the site is likely to be achieved via the B4328 (Spring Gardens) and the A40. Natural Resources Wales mapping shows that access routes to the site from the east are largely free from flood risk, with only a limited extent of surface water flooding along Spring Gardens (B4328). This route offers an alternative route onto the A40 should the western route experience flooding.

Access routes from the south are more likely to be affected by flooding, especially around the Trevaughan Bridge and Station Road areas. Possible alternative routes to the south include the A40 and A477, however these roads are also subject to flooding around Pont Newydd, south-west of St Clears

### 6.4 Recommendations

Multiple access/egress routes should be considered as part of the site master-planning and development to provide resilience

Further consideration should be given as to access requirements to the southernmost portion of the site

An appropriate offset is given to all watercourses to allow for access, maintenance, and ecological corridors site master-planning should ensure that development is located within areas where the level of flood risk is commensurate with the nature of the development

From a review of the available information, the site contains areas at significant risk of flooding from main rivers, minor watercourses and surface water. Notwithstanding this, large areas of the site remain at low risk of flooding.

It is anticipated that through careful master-planning and design, development can be directed to avoid areas of risk, with any development that is proposed in areas considered at risk of flooding to be of a nature considered appropriate for the level of flood risk present.



## 7.0 Ecology



Fig. 7.1 - Habitat Survey Map



Site C comprises mainly fields (majority modified grassland) bordered by wire fences and hedges, some on earth banks, with a network of ditches. The site also has areas that are built-up, comprising buildings, sealed surfaces, or other developed land. Site C contains lines of trees and dense scrub. There are no areas of standing open water, although the site does have an area where rushes dominate in fen.

Two statutory designated Special Areas of Conservation (SAC) for which bats are a qualifying feature were identified within 35 km of the site. The distances between the designated sites and the site are larger than the particular bat species would travel therefore, it can be assumed that the Proposed Development would not have a negative impact on the bat populations roosting within these SACs.

No statutory nature conservation sites of international or national importance have been identified within 2 km of the site.

Further surveys are required to determine the presence/likely absence of bats at the site, which would be carried out from May to September. Further surveys are also required to determine the presence/likely absence of hazel dormouse at site C.

Avoidance and/or precautionary methods of working to minimise negative impacts has also been recommended for: badger, hedgehog, dormouse, breeding birds, reptiles, amphibians, and Invasive Non-Native Species. These measures would require safeguarding by the implementation of an Ecological management Plan comprising precautionary and planned Method of Working Statements during the construction phase, and a Construction phase Environmental Management Plan from the construction phase through to the operational phase of the Proposed Development.

A Biodiversity Net Gain (BNG) assessment using currently available BNG resources should be utilised in order to ensure that a measurable net benefit for biodiversity is achieved. This is in line with current guidance and would ensure the Proposed Development demonstrates a measurable net gain for biodiversity and aligns with Planning Policy Wales (PPW) (Edition 11) 2021.

Ecological enhancements are recommended, such as retention/creation of habitats e.g. species-diverse grassland to increase the value of the site for biodiversity.

## 8.0 Environmental Appraisal

### 8.1 Key Constraints

The main environmental and social constraints identified for site C are: Ecological receptors comprising a B-Line (an insect pollinator dispersal pathway) which lies within the site and nearby ancient woodland

Potential for the site to be a suitable habitat for protected and/or notable species

Nearby above ground heritage assets and potential archaeological assets on site;

River Taf and River Gronw adjacent to the site and minor watercourses which intersect the site;

Site contains areas at significant risk of flooding from watercourses and surface water;

Various residential receptors, in particular, properties which are adjacent to the site; A Public Right of Way (PRoW) which intersects the site

Businesses and community assets in the Study Area, in particular businesses located off the B4328.

### 8.2 Environmental Impact Assessment

The proposed development is considered to be Category 10 (b) Urban development project under Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 (“EIA Regulations”) and exceeds the 5 hectares (ha) threshold for Schedule 2 development. Therefore, the Proposed Development requires screening under the EIA Regulations.

The Proposed Development against the environmental categories to and undertook a high-level assessment to determine the likelihood of significant environmental effects. It was concluded that potential significant environmental effects cannot be ruled out at this stage and it is likely that there could be significant adverse for the following topics:

- Land Use and Soils
- Cultural Heritage and Archaeology
- Ecology and Nature Conservation
- Landscape Character and Visual Impact
- Traffic and Transport
- Population and Human Health
- Air and Climate
- Water Resources
- Noise
- Material Assets and Waste

Therefore, a statutory EIA will be required for the Proposed Development at site C.

### 8.3 Recommendations

To determine whether there may be significant environmental effects, the following recommendations have been made:

Further surveys and assessments to support a planning application and EIA requirements including:

- Arboriculture surveys;
- Archaeological and heritage assessments and surveys;
- Noise surveys;
- Landscape and Visual Impact Assessment (LVIA);
- Flood Consequences Assessment;
- Climate impact assessment;
- Traffic and transport assessment;
- Ecological surveys;
- Intrusive ground investigation;
- Mitigation incorporated into site master planning and design in relation to drainage and flood risk

Consultation with local businesses and residents informing them of the Proposed Development;

Notice given to the relevant LPA, Carmarthenshire County Council, to inform and/or obtain permission for any Public Right of Way disruption;

SuDS Approving Body (SAB) consent; and

Producing construction related assessments such as a Construction Environmental Management Plan (CEMP), Construction Traffic Management Plan (CTMP) and Site Waste Management Plan (SWMP) to mitigate against any construction related disruption including potential pollution incidents, air quality changes and noise disruption.

A detailed summary of the environmental recommendations can be found within the main Technical Appraisal report.



## 9.0 Design

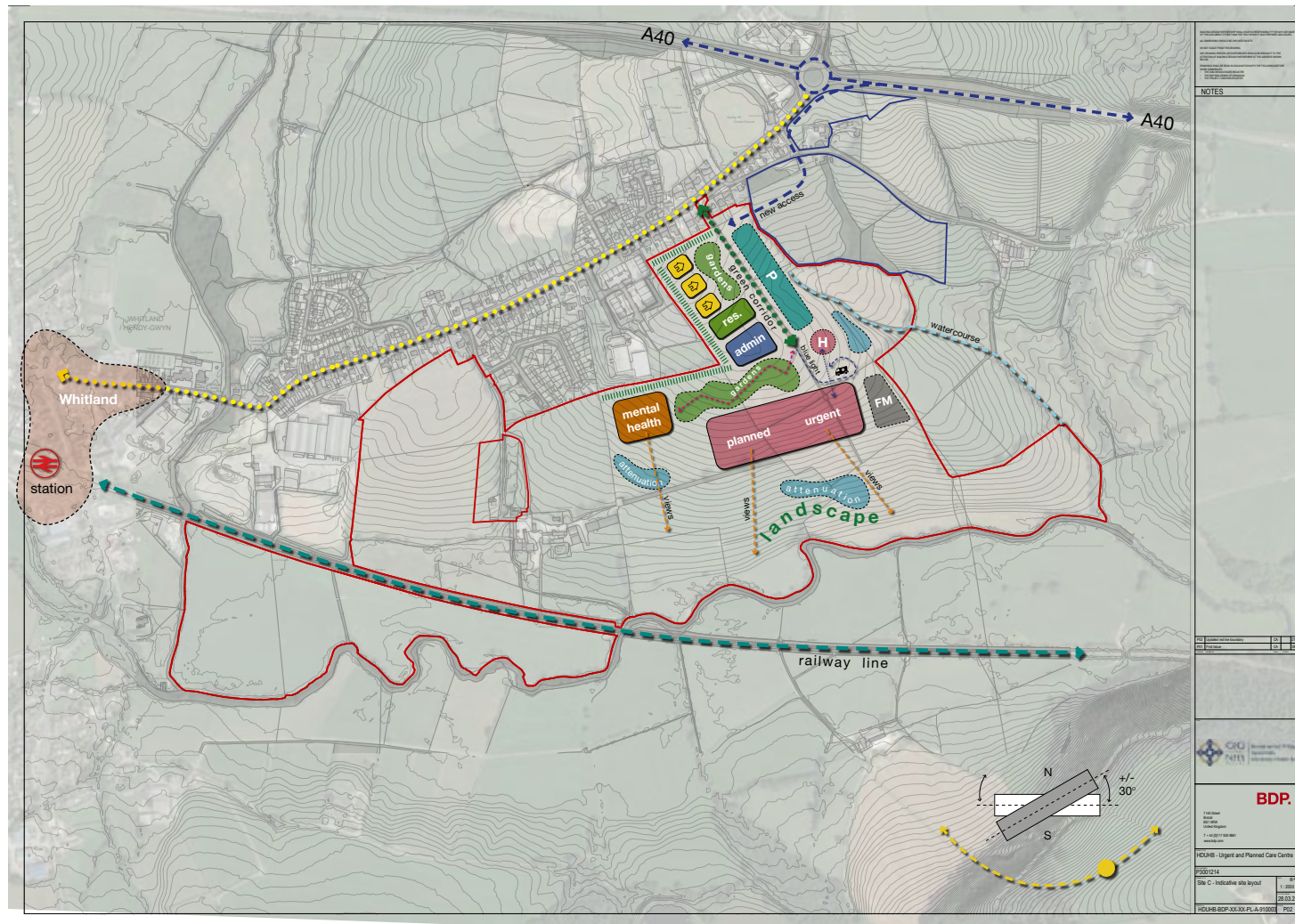


Fig. 9.1 - Indicative site layout showing the primary components of the proposed masterplan

As part of the technical appraisal process the design team have tested the ability of the site to support the development of a sustainable and robust masterplan.

To do this we have tested some layout options to check whether the existing site conditions allow for an efficient layout of buildings, roads, parking areas and landscape, taking into account issues such as the shape and slope of the site along with other physical constraints such as utilities infrastructure and flood risks.

For consistency we have used the same assumptions about the proposed building areas, parking numbers and future expansion across all five of the shortlisted sites. The indicative site layout opposite shows how the buildings and associated infrastructure could be arranged on the site.

The masterplanning exercise on site C has identified some opportunities such as the orientation of the building to optimise the potential for sunlight, the potential to create new walking routes into the centre of Whitland, opportunities for new landscape features and sustainable surface water drainage infrastructure.

Should site C be selected as the preferred option, further investigative work would need to be carried out and the site Layout would be subject to change.

## 10.0 BREEAM

BREEAM CREDIT	SITE C
Travel Plan (Tra 02-01)	2 Credits
Sustainable Transport Measures (Tra 02-02)	4 Credits (Excellent) 7 Credits (Outstanding)
Previously Occupied Land (LE 01-01)	0 Credits
Contaminated Land (LE 01-02)	0 Credits
Change and Enhancement of Ecology (LE 04-01)	2 Credits (Excellent) 3 Credits (Outstanding)
Flood Resilience (Pol 03-01)	1 Credits
Surface Water Run Off Rate (Pol 03-02)	1 Credit
Surface Water Run Off Volume (Pol 03-03)	1 Credit

BREEAM SCORE	SITE C
If aiming for BREEAM Excellent	75.45%
If aiming for BREEAM Outstanding	91.64%

**BREEAM** (Building Research Establishment's Environmental Assessment Method) is an environmental impact assessment system for buildings. It helps design teams and developers to make sustainable decisions through the design and construction stages of a project by awarding credits against a range of key criteria. The aspiration is to aim for the best BREEAM score possible for the new hospital. A score of 75% or higher qualifies as 'Excellent' and a score of over 85% rates as 'Outstanding'.

As part of this technical appraisal we have carried out an initial BREEAM assessment of each of the 5 sites. The assessment is based on the technical reports and information about the local area.

As the buildings are not yet designed a number of assumptions have been made for many of credits where information is not yet available, for example we are not able to assess the potential energy use or the impact of building materials until later design stages.

The assessment is based on specific credits which are applicable to the site, these are listed in the table opposite. The credits with the biggest impact on the overall score were **Sustainable Transport Measures** and **Flood Resilience**.

The sustainable transport measures credit is based on the proximity and density of the public transport network. Site C currently achieves an Accessibility Index score of 0 due to the distance to the train station. This could be improved in future stages if public transport services are enhanced.

The flood resilience credits are applied where sites have a low probability of flooding. As site C has a medium or high annual probability of flooding (based on Natural Resources Wales information) it achieves the maximum 1 credits.

Based on the initial assessment a development on site C would likely achieve a BREEAM score of between 75.45% and 91.64%. This assessment assumes that all other potential credits are secured through the later stages of design.

Fig. 10.1 - BREEAM credits and scores

## 11.0 Town Planning and Acquisition

### 11.1 Planning Policy

#### National Planning Policy

The relevant National Planning Policy documents are Future Wales: The National Plan 2040 and Planning Policy Wales (PPW) Edition 11 (February 2021).

#### Local Planning Policy

The relevant Local Planning Policy document is the Carmarthenshire County Council Local Development Plan (LDP), which was adopted in December 2014

### 11.2 Committed Developments

There are no applications located in the vicinity of the site which are considered to be relevant to the Proposed Development.

### 11.3 Town Planning - Key Findings

The key findings of the Town Planning review are as follows:

Policy 1 of Future Wales identifies that development and growth in towns in rural areas should be of appropriate scale and support local aspirations and need.

Policy 6 of Future Wales indicates that significant new commercial, retail, education, health, leisure and public service facilities must be located within town and city centres.

Policy 29 of Future Wales identifies Carmarthen and the Pembrokeshire Haven Towns as the focus for housing, employment, tourism, public transport and key services within their wider areas and function as focal points for sub-regional growth.

A large area of the site is located within an area of sand and gravel which is safeguarded under policy MPP3.

The majority of the site is located on unallotated land outside the Development Limits for Whitland. In the LDP, Development Limits are set to prevent inappropriate development in the countryside and provide certainty and clarity as to where exceptions proposals (adjacent to limits) may be considered appropriate.

Whitland is identified as a Service Centre in the LDP Settlement framework with a role for Local employment provision, residential provision, town centre and local retail service offer, community service provision and gypsy and traveller site.

The LDP supports the provision of new community facilities in accordance with the settlement framework and based upon evidence of need.

### 11.4 Land Acquisition

The freehold of the majority of the site is in single public ownership and has been nominated by the public body that owns the freehold of the site. This part of the site is the subject of a Farm Business Tenancy which expires 2028. The tenant is aware of the sites nomination by the owner.

Two further areas of land are required to provide an appropriate access into the main site. These two sites are owned separately by private individuals. There are no leases that we are aware of. Both owners are aware of the adjoining site nomination and have confirmed that they are willing to include their land within the site nomination area.

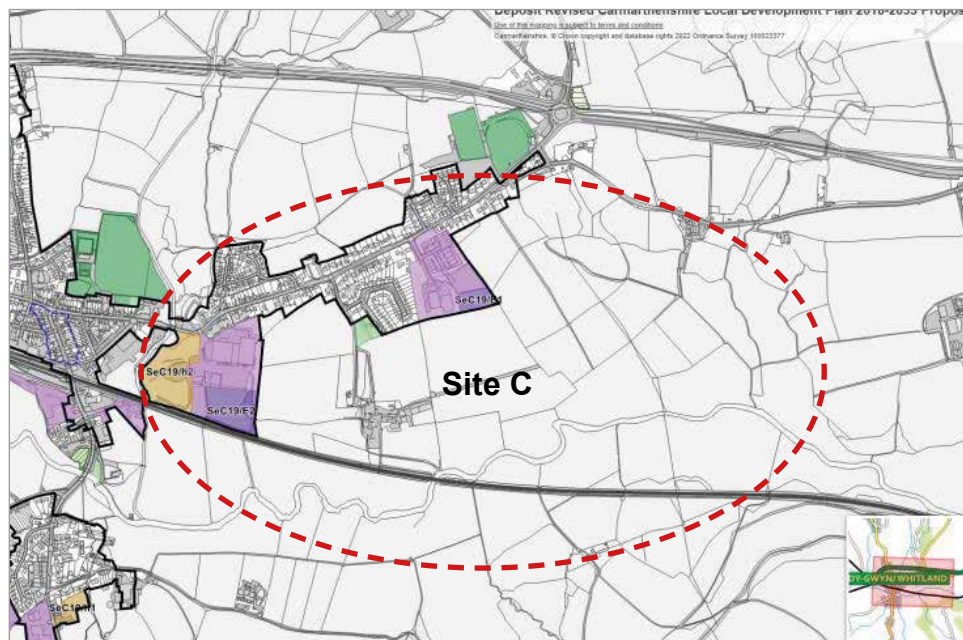
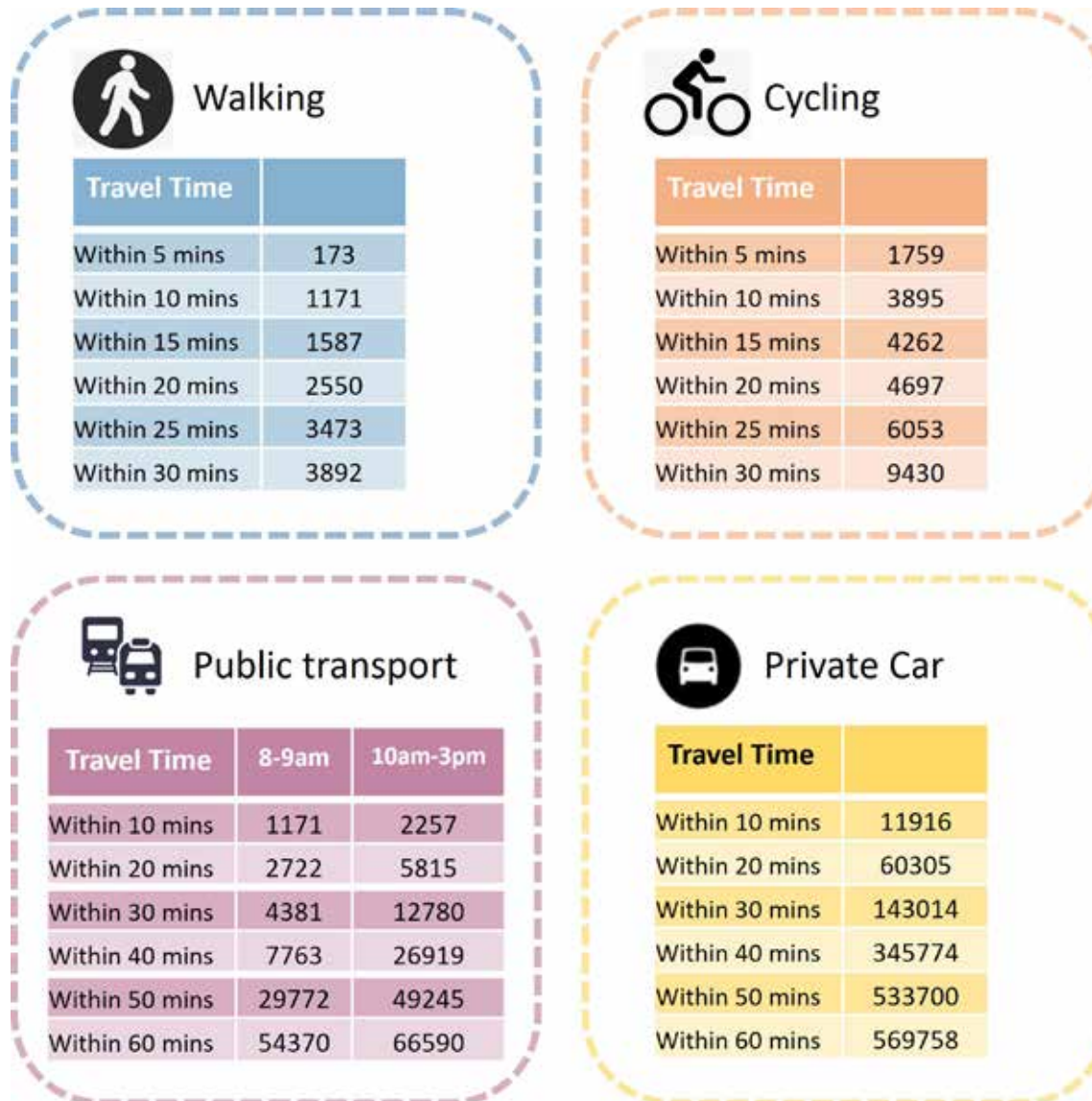


Fig. 11.1 - Adopted local development plan (Whitland)



## 12.0 Travel Time Analysis



Circa 3892 people are living within the 30 minutes walking travel time from site C.

Circa 9430 people are living within the 30 minutes cycling travel time from site C.

Circa 54,370 people are living within the 60 minutes travel time by public transport from site C.

The nearest bus stop is along Spring Gardens and is accessible by 5 minutes walk (around 500m walking distance) and the nearest railway station is Whitland railway station and is accessible by 17 minutes walk (around 1.3km walking distance).

The travel time calculations also include the time for walking to the bus stop or railway station from the site and travelling via public transport and reaching to the required destination.

Circa 569,758 people living in Wales who are within 60 minutes car travel time from site C.

Fig. 12.1 - Travel times to site C by respective methods

## 12.0 Travel Time Analysis

Settlement	population	Nearest existing Hospital	Drive time to nearest existing hospital (minutes)	Whitland	
				Drive time to new Site (minutes)	Drive time variance (minutes)
Llanelli	45,551	GGH (ex. PPH)	37	49	12
Carmarthen	16,260	GGH	8	23	15
Ammanford	8,610	GGH (ex. PPH)	30	48	18
Cross Hands	6,465	GGH (ex. PPH)	18	35	17
Burry Port	6,061	GGH (ex. PPH)	31	44	13
Glanamman	4,487	GGH (ex. PPH)	36	53	17
Tumble	4,333	GGH (ex. PPH)	21	38	17
Llangennech	4,313	GGH (ex. PPH)	28	46	18
Tycores	3,775	GGH (ex. PPH)	26	42	16
Lampeter	2,861	GGH	38	58	20
Llandybie	2,853	GGH (ex. PPH)	28	43	15
Kidwelly	2,844	GGH	21	35	14
Brynamman	2,634	GGH (ex. PPH)	45	62	17
St Clears	2,223	GGH	16	10	-6
Pembrey	2,007	GGH (ex. PPH)	27	38	11
Llandovery	1,987	GGH	37	56	19
Newcastle Emlyn	1,914	GGH	29	35	6
Llandeilo	1,749	GGH	22	40	18
Pontyberem	1,693	GGH (ex. PPH)	21	36	15
Whitland	1,641	GGH	24	1	-23
Trimsaran	1,573	GGH (ex. PPH)	28	38	10
Pontyates	1,529	GGH (ex. PPH)	20	33	13
Llandysul	1,459	GGH	28	48	20
Pwll	1,348	GGH (ex. PPH)	35	46	11
Waungilwen	1,329	GGH	29	39	10
Llanybyther	1,235	GGH	28	49	21
Aberporth	1,167	GGH	48	50	2
Penybanc	1,115	GGH	20	40	20
Carway	1,091	GGH (ex. PPH)	23	35	12
Pencader	1,086	GGH	18	38	20
St Dogmaels	1,075	GGH	50	42	-8
<b>TOTAL POP.</b>	<b>138,268</b>	<b>Population Drivetime Variance</b>			<b>13</b>

Fig. 12.2 - Car travel time variance by settlement - Glangwili General Hospital

Key:
-30+
-20 to -29
-10 to -19
-9 to 9
10 to 19
20 to 29
30+

Settlement	population	Nearest existing Hospital	Drive time to nearest existing hospital (minutes)	Whitland	
				Drive time to new Site (minutes)	Drive time variance (minutes)
Llanelli	45,551	PPH	8	49	41
Ammanford	8,610	PPH	24	48	24
Cross Hands	6,465	PPH	19	35	16
Burry Port	6,061	PPH	19	44	25
Glanamman	4,487	PPH	30	53	23
Tumble	4,333	PPH	17	38	21
Llangennech	4,313	PPH	9	46	37
Tycores	3,775	PPH	20	42	22
Llandybie	2,853	PPH	26	43	17
Brynamman	2,634	PPH	40	62	22
Pembrey	2,007	PPH	23	38	15
Pontyberem	1,693	PPH	18	36	18
Trimsaran	1,573	PPH	17	38	21
Pontyates	1,529	PPH	18	33	15
Pwll	1,348	PPH	13	46	33
Carway	1,091	PPH	19	35	16
<b>TOTAL POP.</b>	<b>98,323</b>	<b>Population Drivetime Variance</b>			<b>31</b>

Fig. 12.3 - Car travel time variance by settlement - Prince Philip Hospital

Settlement	population	Nearest existing Hospital	Drive time to nearest existing hospital (minutes)	Whitland	
				Drive time to new Site (minutes)	Drive time variance (minutes)
Haverfordwest	15,388	WGH	6	29	23
Milford Haven	14,337	WGH	22	40	18
Pembroke Dock	9,747	WGH	26	37	11
Pembroke	8,171	WGH	28	33	5
Tenby	4,260	WGH	35	27	-8
Cardigan	4,250	WGH	41	42	1
Neyland	3,758	WGH	22	40	18
Fishguard	3,480	WGH	22	43	21
Saundersfoot	2,707	WGH	32	22	-10
Narberth	2,622	WGH	19	12	-7
Johnston	2,230	WGH	12	35	23
Goodwick	1,862	WGH	22	44	22
St Davids	1,390	WGH	28	50	22
Pentlepoir	1,305	WGH	29	17	-12
Llatterston	1,283	WGH	23	36	13
Kilgetty	1,261	WGH	29	17	-12
<b>TOTAL POP.</b>	<b>78,051</b>	<b>Population Drivetime Variance</b>			<b>12</b>

Fig. 12.4 - Car travel time variance by settlement - Withybush General Hospital

The drive time to the existing hospital and the proposed new hospital from the existing settlements and the additional travel time required to travel to new hospital are shown in the tables.

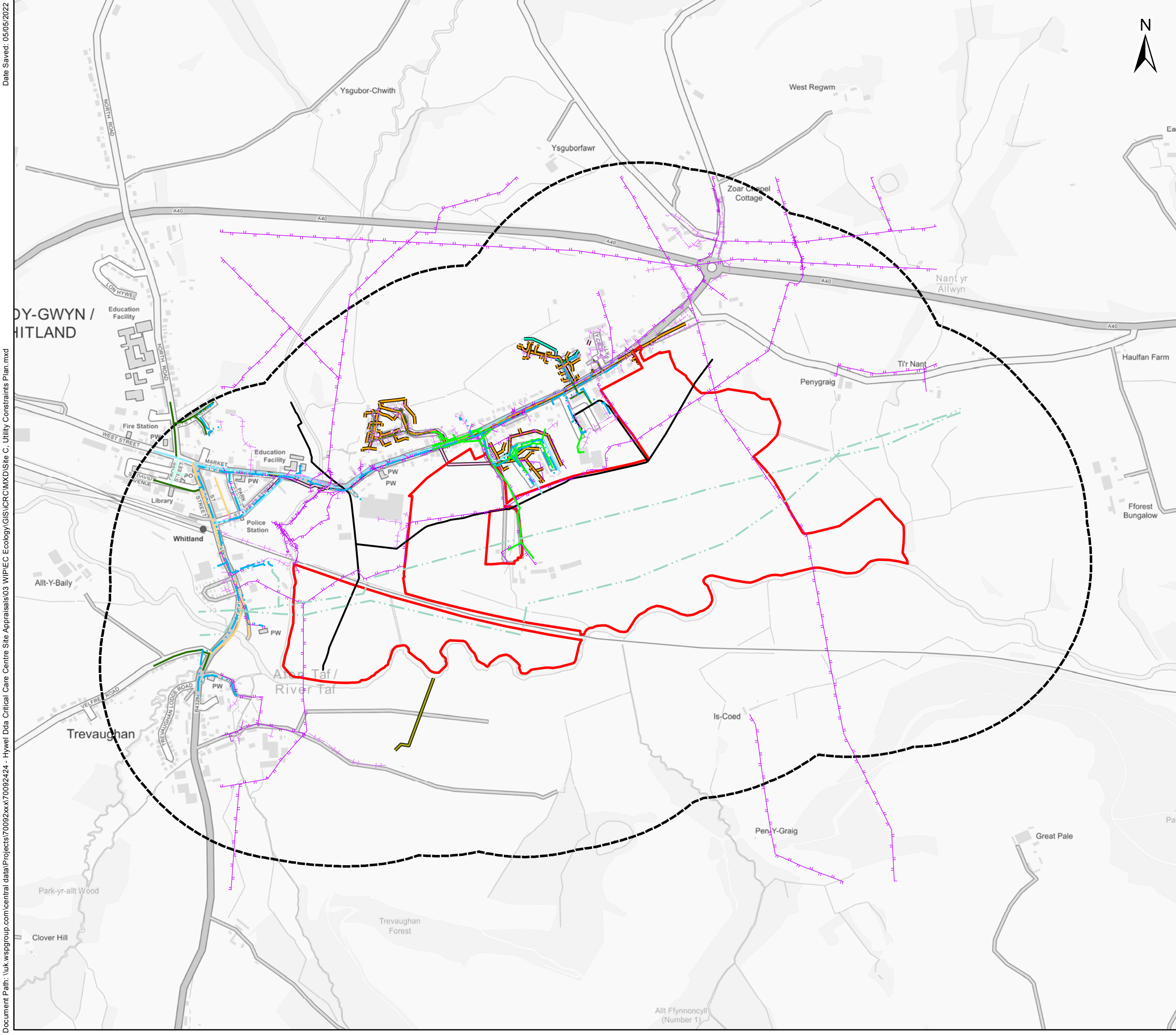
The population currently travelling to the existing Glangwili General Hospital for emergency services which are likely to be relocated to the proposed new hospital in future, travel time variance are within 25 minutes for most of settlements.

The population currently travelling to the existing Prince Philip Hospital for emergency services which are likely to be relocated to the proposed new hospital in future, travel time variance is less than 30 minutes for most of settlements except for Llanelli, Llangennech and Pwll.

The population currently travelling to the existing Withybush Hospital for emergency services which are likely to be relocated to the proposed new hospital in future, travel time variance is within 25 minutes for most of settlements.

## **Appendix A: Utilities Constraints Plan**





**Legend**

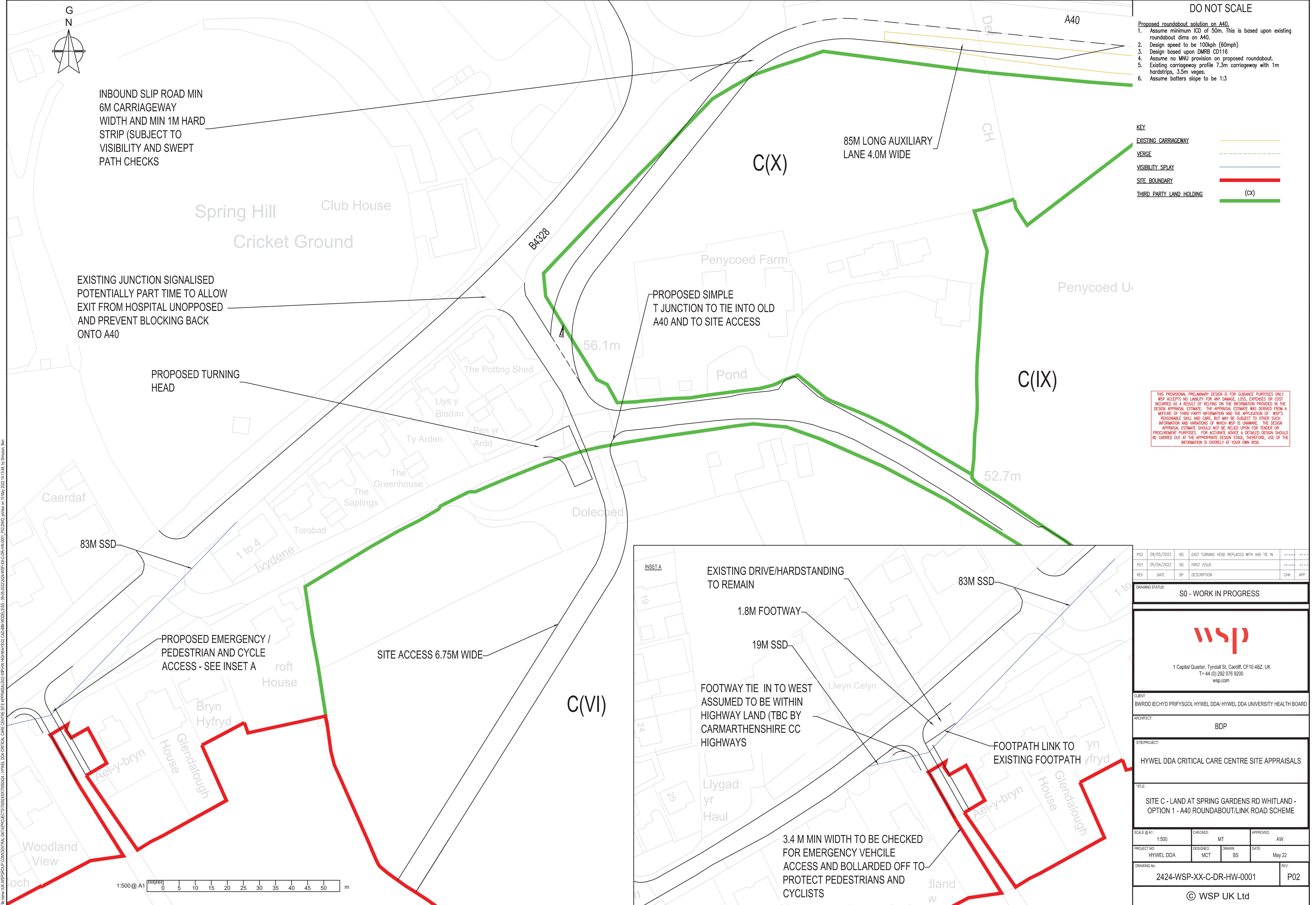
- Site C Site Boundary
- 500m Study Area
- Telecoms (BT maps)**
  - Telecoms (BT maps)
- Gas (Wales and West Utilities)**
  - High Pressure
  - Low Pressure
- Power (Western Power)**
  - Overhead
  - Underground
- Mains Water (Welsh Water)**
  - Unidentified
  - 2 inch
  - 3 inch
  - 5 inch
  - 6 inch
- Storm and Foul Sewerage system (Welsh Water)**
  - Combined
  - Foul
  - Storm Overflow
  - Surface Water
  - Treated Effluent



Scale: 1:500,000		
<div>00.250.5km</div>		
Client:	Hywel Dda University Health Board	
Project:	Site C – Technical Due Diligence Appraisal	
Title:	Site C Utilities Constraints Plan	
Date:	05 May 2022	Scale: 10,000 @ A3
Drawn:	PB	Checked: CLH    Approved: WB
Drawing Number: 2424-WSP-XX-SC-DR-EN-0019-P01_Utility Constraints Plan		

## **Appendix B: Proposed Highways Infrastructure**

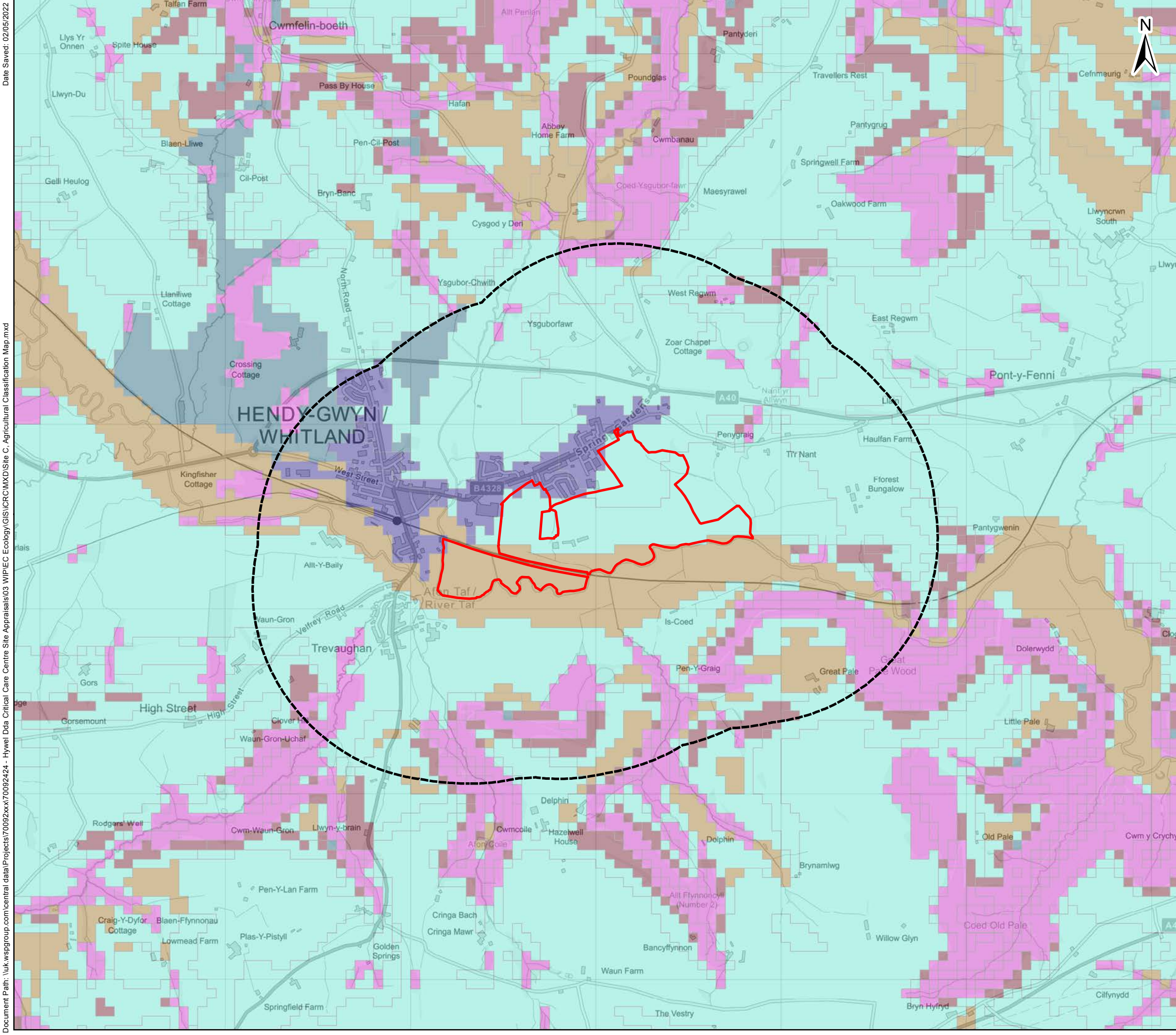




File name: I:\UK\WSPGROUP\COMMON\DATA\PROJECTS\1002000\700824\HYWEL DDA CRITICAL CARE CENTRE SITE APPRAISAL\SD1\WPHW\HIGHWAYS\CD-CR-HW-0001\_P02.DWG, printed on 10 May 2022 14:13:48, by Simpson, Ben

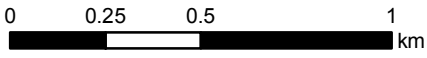
## **Appendix C: Agricultural Classification Map**





**Legend**

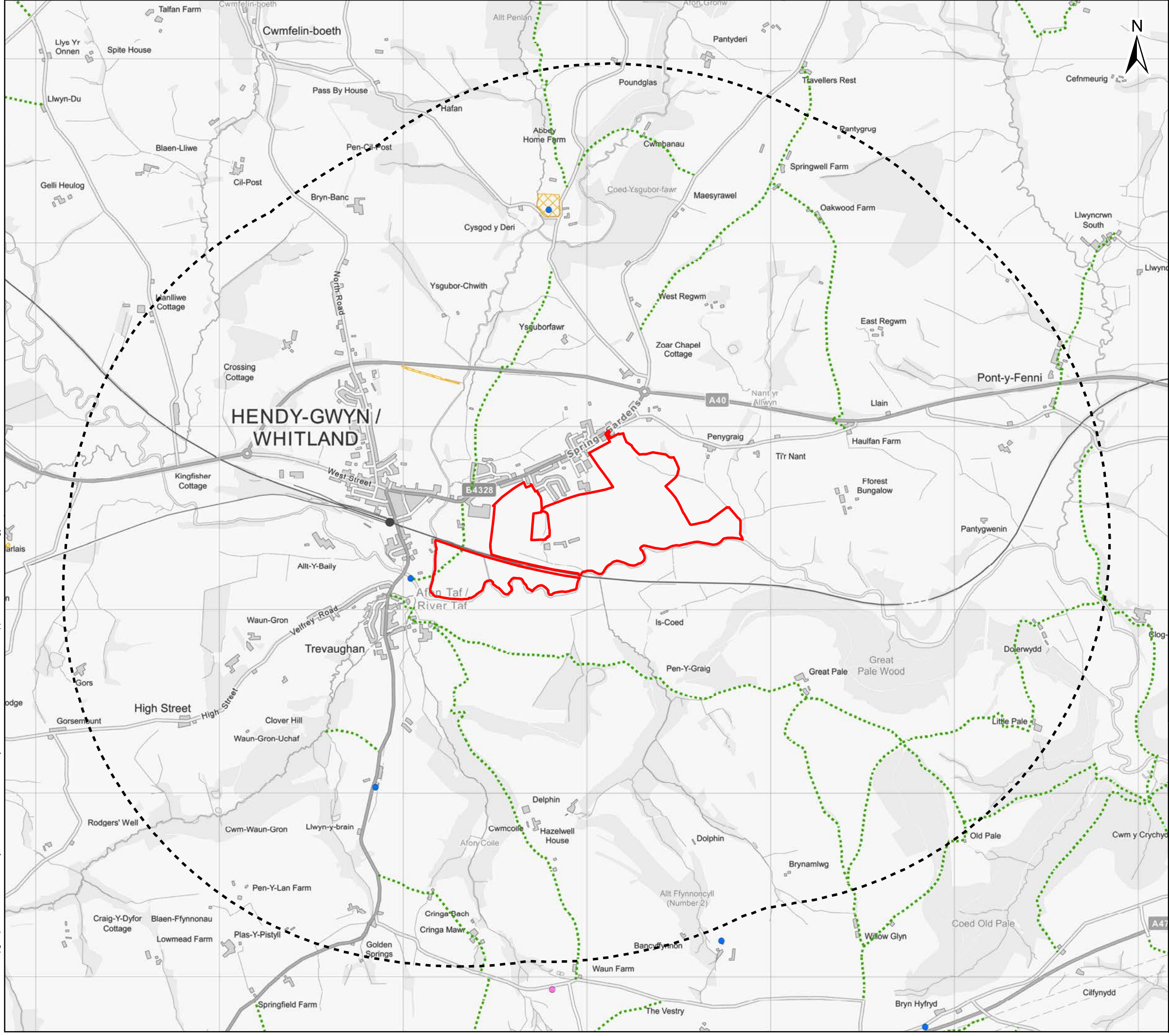
- Site C Site Boundary
- 1Km Study Area
- 3a
- 3b
- 4
- 5
- NA
- U



Client:	Hywel Dda University Health Board		
Project:	Site C – Technical Due Diligence Appraisal		
Title:	Agricultural Land Classification Map		
Date:	02 May 2022	Scale:	19,824 @ A3
Drawn:	PB	Checked:	CLH
		Approved:	WB
Drawing Number:	2424-WSP-XX-SC-DR-EN-0014-P01_ALC Map		



## **Appendix D: Environmental Constraints Plan**



- Legend**
- Site C Site Boundary
  - 2km Study Area
  - Grade II\* Listed Building
  - Grade II Listed Building
  - Footpath
  - Scheduled Monuments



Client:	Hywel Dda University Health Board		
Project:	Site C – Technical Due Diligence Appraisal		
Title:	Environmental Constraints Plan		
Date:	06 May 2022	Scale:	20,000 @ A3
Drawn:	PB	Checked:	CLH
		Approved:	WB
Drawing Number: 2424-WSP-XX-SC-DR-EN-0007-P01_Env Constraints Plan			