Hywel Dda University Health Board

Review of three potential Development Sites for new proposed hospital.

This review aims to assess the suitability of each of the possible three sites, with an emphasis upon overarching Biophilic design principles. It will include the impact of a development on the general landscape, its integration into the landscape, the impacts upon biodiversity, along with the possibility of biodiversity enhancements and the potential of a positive impact of the site on the users of the hospital.

Land at Spring Gardens, Whitland (formerly Site 12).

· General overview of site.

The proposed site is bounded in the north by the A40 to Haverford West and in the south by the B4328 running through the village of Whitland.

Access.

Access is from the centre of the village, at a point where the farm fields join the road. Entry on to the site at this point is via a small footpath which crosses an area of damp grassland and a small running ditch. Once across the ditch the land gradually rises into the farm fields proper.



Relationship to surrounding features, natural and built.

The entrance to the site and the first section of the farm fields are bounded by housing along the south, west and east edges. There are existing hedgerows interspersed with some mature Oaks.

Existing Biodiversity interest of the site.

The fields are all a mix of unimproved and improved grassland, managed for livestock grazing and possibly cutting for silage. In both areas, and particularly in the wetter areas, there is a general mix of wild herbaceous plants. A hedgerow with mature trees traverses the centre of the site and associated in the understorey it has Bluebells, Celandines, Brambles and a mix of Hawthorn and Blackthorn.







Integration of any development into the landscape.

The site rises up from the road entrance, which might be described as generally 'domed'. Any hospital development would therefore sit generally proud within the landscape. There could be views out into the surrounding farm fields to the East and West, but it would also overlook and be seen by local residents.





<u>Tŷ Newydd Farm, Whitland (formerly Site C)</u>

· General overview of site.

The proposed site is bounded in the north by the B4328 road running through the village of Whitland and in the south the site is delimited by the Afon Taf.

Access.

Access is from the centre of the village, at a point where a narrow access road from the farm field adjoins the road. Entry on to the site at this point opens out onto a large series of fields which are for the most part flat. This level area extends across approximately across half of the site and then the fields slope down gradually to the River Taf.









Relationship to surrounding features, natural and built.

Across most of this site there are no natural features of note, with the exception of the River Taf and the extensive views across the valley. Running along the edge of the site to the east and west there are hedgerows, and the northern edge of the site is bordered by housing.

Existing Biodiversity interest of the site.

This site is highly improved grassland; from an agricultural standpoint it has been extensively managed. It has been sown with ryegrass, and at the time of visiting the upper area had FYM applied to increase the nutrient levels. This heavily improved site had almost no plants other than those purposely sown. The only botanical variety was between some of the fence lines which were difficult to cut or graze. There were cattle close to the river, so one could assume the grassland is managed for livestock grazing and to produce silage.





Integration of any development into the landscape.

The site is, in effect, a site of two halves: a flat entrance area and an area which eventually slopes away to the south and to the Afon Taf. Any hospital development could/would have to take account of the changing levels. The site is overlooked only along the edge bordered by the village; and the sloping area of the site cannot be overlooked except by the few farms across the opposite side of the river valley. The site has extensive and distant views across the Taf valley.







Land at Tenby Road, St Clears (formerly Site 17)

· General overview of site.

The proposed site is bounded generally in the south by the A40 to Whitland and the A4066 main road running through the village of St Clears. To the north the site is bounded and overlooked by the B road to Pwll-Trap.

Access.

Access is across a field close to the McDonalds restaurant; there is also a farm gate entrance which was locked. From this point a series of the three linked fields surrounded by mature hedgerows with larger Oaks and Beach trees generally follow an incline up to the northern boundary.



Relationship to surrounding features, natural and built.

The southern boundary of the site is overlooked by houses and businesses which run along the main road through St Clears. The fields which comprise the site are surrounded by mature hedgerows with a collection of mature trees. The fields to the north of the site are overlooked by new housing that flows the B road to Pwll -Trap.





Existing Biodiversity interest of the site.

As with site 12, the fields are all a mix of unimproved, with some improved, grassland open for livestock grazing and possibly cutting for sileage; in both areas, and particularly in the wetter areas, there is a general mix of grass species, Clovers, Plantains, Ranunculus sp and Sedges. Hedgerows with mature trees surround the lower two fields: these include a mix of Hawthorn, Blackthorn, Willow, Hazel, Sycamore, and a number of large Oak and Beech trees.







Integration of the development into the landscape.

The site rises up from the road running through St Clears, and the north of the site would be clearly visible, being overlooked by the northern A40 to Whitland. Any hospital development would therefore sit boldly within the landscape, being visible from the village and the A40.

General conclusions.

Greatest impact on the existing site

Each of the three sites are agricultural; however, Tŷ Newydd Farm, is highly managed for grass production: as a result there is very little grassland biodiversity. The other two sites have areas of unimproved and wet grassland which are correspondingly more botanical diverse.

Similarly, Tŷ Newydd has very few hedgerows or mature tree cover; whereas both the other sites have significant section of diverse hedgerows with understorey development and mature trees.

Any development at Tŷ Newydd would therefore have the least impact upon the existing biodiversity of the site.

Greatest opportunity to improve Biodiversity.

All agricultural sites could in general benefit from active biodiversity management, but a highly managed site such as Tŷ Newydd Farm would benefit from this far more. This site is almost a blank (green) sheet, and active biodiversity management on this site as a part of any development would be far more significant than mitigation work at either of the other two sites.

Best site into which a biophilic designed development might fit / what the site can add.

One of the first considerations re: any development that intends to follow a biophilic design is to consider how the development sits within the landscape: whether it is a sensitive fit, how might it enhance its surroundings, and what can the site add to the overall development?

There is a significant body of research that points to the fact that patients and staff who have sight of and/or access to nature during their period in hospital have demonstrable improved outcomes, and staff are also better served by access to the same environment.

A planted biodiverse landscape around a hospital and access to an existing natural landscape, directly or visually, should form one of the underpinning initial considerations of any proposed site.

Of the three sites, I believe Tŷ Newydd Farm would be the best choice. The impact of any development on the existing biodiversity of the site would be negligible, as it is heavily managed with little biodiversity interest. The distant views across the valley of the Taf and the possibility of access to the river would all recommend this site. The landform with the initial flat fields eventually falling down to the river may well support and add to a biophilic design, but this is clearly a design consideration for later. Additionally, the Tŷ Newydd site is much less easily looked over by existing housing, and so may have less of an impact its neighbours.

Yr Athro Geoffrey Proffitt.

Cyfarwyddwr Economi Gwybodaeth a Rhwymedigaeth

Pennaeth Adran Biowyddorau

Y Coleg Gwyddoniaeth

Prifysgol Abertawe

Professor Geoffrey Proffitt.

Director Knowledge Economy

Head of Department Biosciences

The College of Science

Swansea University