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01: Introduction

This Landscape and Visual Appraisal (LVA) has been prepared by HLM on behalf of the Vale of Glamorgan Council and assesses the likely effects on landscape and visual amenity arising from the proposed development south of Cosmeston, within the Vale of Glamorgan. The document has been produced to accompany an outline planning application submitted to Vale of Glamorgan Council (VGC) for a new primary school with associated car parking and landscaping.

Scope and Aims

The appraisal of impacts is made in relation to landscape character and visual amenity within both the immediate and wider landscape, ascertained through the establishment of the baseline situation and likely effects of the proposed development on it.

A brief summary of landscape and visual terminology used within this appraisal is provided in Appendix A. For the purposes of the appraisal, a clear distinction is drawn between landscape and visual effects as follows:

- **Landscape effects:** effects on the landscape as a resource in its own right;
- **Visual effects:** effects on specific views and on the general visual amenity experienced by people.

This appraisal aims to provide an appraisal of the importance of likely effects on landscape character and visual amenity.

Description of Proposals

The details of the scheme assessed, herein referred to as the proposed development may be summarised as the development of a new primary school with associated car parking. The proposals consist of a tarmac access road and drop off area, a parking area, a 2 storey school building of 3000m² and 9m height, hard landscape play areas, a multi-use games area with 3m high weldmesh fence, habitat area, grassed playing fields and boundary fencing of 2.4m high weldmesh. The landscape scheme and mitigation measures include:

- Retention of existing hedgerows and trees along the site boundaries
- Proposal of tree belts along the north west and south west boundaries
- Materials and massing of proposed built form to tie in with local vernacular

Data Sources

Baseline data has been gathered from a study of Ordnance Survey (OS) maps, aerial photographs and publicly available documents such as Landscape Character Assessment (LCA) documents from VGC. National character mapping available from LANDMAP was also reviewed.

Viewpoints have been selected using criteria set out within Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013) (GLVIA) methodology. In particular the Cosmeston Medieval Village has been identified as a landscape receptor and a viewpoint has been selected in order to encapsulate this area. 6 viewpoints have been selected in total.

A site visit was undertaken by a Chartered Member of the Landscape Institute on 28th November 2020 to provide background knowledge on the existing character of the landscape and to take viewpoint photography.

Limitations

Due to overcast winter conditions on visiting site visibility was limited, meaning photograph viewpoints of site are unclear from mid distance views. However, as the Visual Envelope is limited to close proximity to site, as described within this appraisal, this does not hinder the analysis of effects. Where visibility by eye is greater than that shown in the photographs this is noted.

Access to site was unavailable meaning views out from site could not be assessed. Equally viewpoints towards site from private land including the adjacent livery, residential dwellings and further afield the Glamorganshire Golf Club were not acquired. Assessment has been made of potential views from these areas.

02: Summary of Methodology

Introduction

The methodology adopted for this appraisal is based upon guidance contained within the Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013) Landscape Institute and Institute of Environmental Management and Assessment (referred to as GLVIA3 in this appraisal). This is the standard reference for undertaking landscape character and visual appraisals in the UK.

Photographs included in the viewpoints are stitched panoramas taken with a Samsung Galaxy s10e camera phone.

Appraisal Process

A detailed description of methodology is provided in Appendix A. This appraisal will establish the baseline landscape and visual conditions of the study area. Following appraisal of the baseline landscape and visual context of the proposed development this LVA assesses:

- Sensitivity of both landscape and visual receptors derived by a combination of sensitivity and value;
- magnitude of change derived from scale/extent, duration and reversibility, whether adverse or beneficial; and
- Level and importance of the effects based on a comparison of sensitivity of receptor and magnitude of change.

Sensitivity/Magnitude and Importance

GLVIA 3 dictates that the linkage between sensitivity of receptor and magnitude of change in order to determine importance is not a prescriptive process. In this LVA reasoned explanation of judgements on importance are based on consideration of the factors set out in Appendix A, used as an indicative framework. Effects predicted to be minor or negligible are considered to be ‘non-important’. Effects appraised as moderate are considered to be important with reasoned justification. Major effects are considered to be ‘important’ and require weighing in the planning balance against other benefits of the proposed development.

Study Area and Visual Envelope

A 2km study area has been adopted in order to provide the wider context of the area for landscape character and visual amenity. Within this study area a Visual Envelope has been identified. A Visual Envelope is an area defined by desktop and field-based study within which the proposed site is visible. In this case the use of digital terrain modelling (defining the anticipated Zone of Theoretical Visibility (ZTV)) has been used initially to inform

where the proposed development may be visible from, this has then been further refined by field study and professional judgement into a more confined area of actual visibility, which is referred to as the Visual Envelope.

The Visual Envelope is illustrated on a figure 8 accompanying this appraisal and encompasses land within a varying radius from site, up to 500m. Beyond this distance it is anticipated that the proposed development would be unlikely to give rise to landscape or visual effects.

Potential Effects Arising From The Proposed Development

Potential landscape and visual effects resulting from the proposed development may be summarised as:

- Change in the character of the site through change in land use from agriculture to educational residential development;
- Change on the character of the adjacent landscape through the introduction of built form;
- Changes in visual amenity within the Visual Envelope arising from views of the proposed development.

The effects will be assessed at the operation stage. Unless stated otherwise it should be assumed that all effects identified are adverse in comparison with the baseline.

03: Planning Policy Context

National Planning Policy

Planning Policy Wales (PPW) (Edition 10, December 2018) is the Welsh Government's principal planning policy, which aims to promote sustainable development. Paragraph 1.17 states 'Legislation secures a presumption in favour of sustainable development in accordance with the development plan unless material considerations indicate otherwise to ensure that social, economic, cultural and environmental issues are balanced and integrated'.

With regards to landscape the PPW states 'All the landscapes of Wales are valued for their intrinsic contribution to a sense of place, and local authorities should protect and enhance their special characteristics, whilst paying due regard to the social, economic, environmental and cultural benefits they provide, and to their role in creating valued places' (paragraph 6.3.3).

The PPW recognises that good design can help to ensure high environmental quality, and that landscape and green infrastructure considerations are an integral part of the design process (paragraph 3.8). It goes on to note that: 'areas recognised for their particular landscape, townscape, cultural or historic character and value it can be appropriate to seek to promote or reinforce local distinctiveness. In those areas, the impact of development on the existing character, the scale and siting of new development, and the use of appropriate building materials (including where possible sustainably produced materials from local sources), will be particularly important' (paragraph 3.10).

Local Planning Policy

The Vale of Glamorgan Council provides the local planning policy context for the site and study area. The Vale of Glamorgan Local Development Plan (LDP) 2011-2026 provides the local planning policy framework and was adopted by the Council on 28th June 2017. The policy relevant to landscape is illustrated on a figure accompanying this appraisal. This includes policy on settlement, public open space and Green Wedges. Aspects of these are described below.

- The site itself and the land south of it (and east of Lavernock Road) lies within a Green Wedge. Policy MG18 - Green Wedges details the parameters for development within Green Wedges: 'Green wedges have been identified to prevent the coalescence of settlements and to retain the openness of land at (...) South Penarth to Sully; Within these areas development which prejudices the open nature of the land will not be permitted.'

Green Wedge Background Paper (2013) further details

reasoning for each of the Green Wedge designations. For the South Penarth to Sully Green Wedge in which the site lies the area is described as 'The area is characterised by rolling, undulating lowland with its highest point a rounded hilltop [Hopkins Mount] located to the east of Swanbridge. The area is covered by a mosaic of pastoral fields enclosed by hedgerows that are often overgrown. The dismantled railway line that bisects the area creates a strong edge and provides a feeling of enclosure in some locations. The area is generally undeveloped however Lavernock Farm in the south east has been developed as a substantial campsite/holiday village and there are caravan parks at St Mary's Well Bay and Swanbridge. The feeling of tranquillity and rural character has been affected by these developments which together with some improved and extended properties create a suburban feel in some areas. Although views of the sea are more limited inland the area provides an important backcloth and essentially a rural hinterland.'

The White Paper also states that the Penarth to Sully Green Wedge has been designated primarily to prevent urban coalescence, protect the openness of the land and to protect vulnerable undeveloped land. Maintaining the setting of the built-up area of Penarth and Sully are of secondary concern.

- The area to the north of the site (and east of Lavernock Road) is designed as Public Open Space. Policy MG28 Public Open Space Allocation details the parameters for development within Public Open Space: 'Policy MG28 allocates land for open space to be provided as part of housing allocations in those areas where the scale of demand for such facilities from housing growth cannot be met by existing provision. These allocations have been based on the Council's most up-to-date evidence of need. However, it is recognised that this can change over time and where there is no longer a need for open space to meet the needs of new developments or suitable alternative provision is made, the Council will take a flexible approach to this requirement.'
- The area to the north of the site (and east of Lavernock Road) is designed as Settlement. Policy MD5 - development within settlement boundaries states: 'Settlement boundaries have been defined around all the settlements within the LDP settlement hierarchy. New development within these settlements will be permitted where the proposed development:
 1. Makes efficient use of land or buildings;
 2. Would not prejudice the delivery of an allocated development site;
 3. Is of a scale, form, layout and character that is sympathetic to and respects its immediate setting and the wider surroundings

and does not unacceptably impact upon the character and appearance of the locality;

4. The proposal would not result in the loss of natural or built features that individually or cumulatively contribute to the character of the settlement or its setting;
5. Would not result in the unacceptable loss of public open space, community or tourism buildings or facilities;
6. Has no unacceptable impact on the amenity and character of the locality by way of noise, traffic congestion and parking; and
7. Makes appropriate provision for community infrastructure to meet the needs of future occupiers.'

04: Description of Landscape Baseline

Site Context

The site assessed within this appraisal occupies approximately 2.7 ha of land to the south of the urban settlements of Cosmeston, Penarth and Cardiff adjacent to the Mouth of the Severn and within the Vale of Glamorgan. The site is located within the local planning authority of Vale of Glamorgan Council.

The existing land use of the site is agriculture. It is a pasture field surrounded by hedgerow to the north west, north east and south west and a woodland belt and embankment to the south east. The site is bounded; to the north west by the B4267 Lavernock Road and beyond it Cosmeston Lakes Country Park; to the south west by Fort Road and beyond it further agricultural fields, to the south east by a band of woodland and beyond it agricultural fields; and finally to the north east by livery buildings and paddocks. This is represented on figures 1 and 2 accompanying this appraisal.

Study Area Context

Physical influences: Topography and drainage

The topography of the study area consists of undulating downs that culminate in the high cliffs of the coast. Outcrops occur at 40, 50 and 60m AOD and are scattered throughout the study area which surround and enclose the site.

The embankment of the disused railway which sweeps through the centre of the survey area from Cosmeston in the north east to Sully to the south west, forms a prominent feature, which at times reaches to 4m in height and serves as a dividing element in the landscape.

The Sully Brook and its tributaries form the only river or stream in the area which drain to the water bodies of the Cosmeston Lakes, Country Park. These lakes have been formed following the filling in of gravel pits and form a prominent feature in the area.

Influence of human activity: settlement

Settlement within the study area is largely concentrated in the north at Lower Penarth and Cosmeston. Settlement here consists of residential areas of post war detached and semi-detached properties. Elsewhere within the rural areas of the study there is an absence of built form with the exception of a scattering of farmsteads within the western part of the study area which consist of several barns and dwelling buildings. While along the coastline to the south The Spinney, Bay, and Marconi caravan parks form clusters of built form in a regulated layout.

Communications

The B4267 road forms a busy, prominent trunk road through the area, travelling through Lower Penarth and Cosmeston in the north and curving through the landscape towards the south east of the study area. Elsewhere minor roads extend from this trunk road to the settlements along the coast or north towards Dinas Powys beyond the study area. Within Lower Penarth and Cosmeston roads vary in format from crescent and curving dead end roads to some more linear road layouts.

Land use and land cover

Landcover consists of settlement, pasture and arable agriculture, Country Park (including lakes and a large area of woodland), a golf course and caravan holiday parks. Field boundaries are predominantly hedgerow and include thick woodland belts in parts which provide a sense of green interconnectivity. At the coastline there are cliffs, beaches and extensive rock scars, a third of the study area is made up of the seascape of the Mouth of the Severn estuary.

Public Rights of Way

The Public Rights of Way are illustrated on figure 5 accompanying this appraisal. There are a small number of Public Rights of Way within the study area including:

- Short sections within the settlement of Lower Penarth to the north;
- Sections running north east to south west across fields and along field boundaries around St Marys Well Bay to the south;
- A longer section running from the centre of the study area, westward to Sully Road and another in the north west part of the study area which runs from Sully Road north west and out of the study area;
- There is a Public Bridleway that runs from the centre of the study area northwards through the Cosmeston Lakes Country Park and beyond; and
- The Welsh Coast Path Long Distance Footpath which follows the coastline and wraps around the western and southern extents of the land throughout the study area.

Key features of interest

Cosmeston Lakes Country Park constitutes a prominent leisure feature in the area. The park has a variety of habitats covering over 100 hectares including significant tree cover, grassland and lakes. Within the park there are a series of footpaths and a wide Bridleway which transects the park, however the public can roam freely throughout the entire area. There is a large car

park, café and visitor centre.

Within the Country Park and adjacent to Lavernock Road is the Cosmeston Medieval Village. This is a reconstructed village which evolved following the development of Cosmeston Lakes Country Park in 1978, when excavations uncovered the remains of a community over 600 years old. Entrance to the village is by paid entry, however views of the village can be enjoyed for free from the area immediately surrounding it.

Published Landscape Character Assessment

National Landscape Character

The site sits within the NLCA35 Cardiff, Barry and Newport Landscape Character Area. The character area is described as ‘one of the most urbanised and busy landscape character areas in Wales.’ The area stretches along the coastline between Severn Estuary and the uplands of the South Wales Valleys and contains the urban areas of Newport, Cardiff and Barry and numerous connecting and busy transport corridors including the M4 corridor.

The study area within this appraisal is described as an ‘Urban fringe / peri-urban area (...) which contains linear settlement linked by rural roads but has an urban fringe character in parts (...) These urban areas are separated by gentle rolling pastoral landscapes with a medium scale field pattern generally. Woodland tends to be in small blocks and deciduous or mixed in character. (...) The landscape and coast between Penarth and Barry is partly urban fringe in character and includes the popular Cosmeston Lakes Country Park, converted from gravel workings. The coast has features of interest including cliffs, coves and wave platforms and includes the distinctive Sully Island and Lavernock Point with its views to Flatholm and the Somerset coast. (...) The open rural land between the urban areas is under pressure but is surprisingly tranquil in parts away from the transport corridors. It provides a welcome relief from the bustle of a dynamic part of Wales.’

Local Landscape Character

The Vale of Glamorgan County Borough Council Designation of Landscape Character Areas, 2008 covers the local area. The site lies within Landscape Character Area (LCA) No. 24 – Sully Ridge/Cosmeston, with Cog Moors taking up a small part of the study area in the north west and Barry to Penarth Intertidal Zone covering the coastal area within the study area. Descriptions of the study areas are found below:

Cog Moors: ‘A distinctive area of reclaimed marshland, originally associated with the development of Barry Docks to the south. The area forms a flat, agricultural landscape crossed by a

network of drainage ditches. It has a feel of lack of management and suffers degradation’.

Barry to Penarth Intertidal Zone: ‘Another area of rocky foreshore and cliffs, although the underlying geology is more of a conglomerate, giving a different visual and structural appearance. It excludes the intertidal zone around Penarth, reflecting the latter’s urban character.’

Sully Ridge / Cosmeston ‘A small, but distinctive area underlain by carboniferous limestone, forming a locally prominent ridge. It affords extensive views across the Bristol Channel, however the sense of isolation is compromised by the adjacent suburbanisation associated with Penarth, Dinas Powys and Sully’.

The following key characteristic for the Sully Ridge / Cosmeston character area have been extracted from the descriptions in the character assessment published by VGC:

- ‘An area of higher ground, the majority of the area forms an elongated headland, running out at Lavernock Point, generally rising up to 50m AOD (Downs and Pop Hill);’
- ‘area is underlain by carboniferous limestone;’
- ‘a generally agricultural area (...) mainly pastoral in use;’
- ‘it has a sense of exposure, a coastal edge landscape with sparse, windblown vegetation;’
- ‘the field boundaries are formed by well-maintained hedges;’
- ‘important recreational landscape at Cosmeston Lakes and the adjacent Downs Golf Course; and’
- ‘close to settlements more disturbance and disruption to the landscape with visual settlement edge issues of litter, fly tipping, discordant boundaries.’

Local Landscape Designations

There are no landscape specific designations within the study area. This appraisal does not consider the presence of any ecological or cultural heritage designations such as Scheduled Monuments, Sites of Special Scientific Interest (SSSI) or sites forming part of the Natura 2000 network which may also influence landscape character. It is however noted that there are several ecological designations on the coastline including the Severn Estuary Ramsar Site, SSSI and SPA and Penarth Coast SSSI as well as inland the Llnnoedd Cosmeston / Cosmeston Lakes SSSI.

04: Description of Landscape Baseline (continued)

Identifying Landscape Receptors

For the purposes of this appraisal (and based on the descriptions above) three landscape receptors have been identified which are deemed as sensitive and having the potential of being affected by the proposed development. These include:

- The setting of the site
- The setting of Cosmeston Medieval Village
- The Green Wedge

For each of the landscape receptors a set of key characteristics / descriptions has been set out, considering features such as topography, built form, agriculture, land cover, boundaries, woodland, infrastructure, scale, tranquillity and views.

The value each landscape receptor is then established by considering statutory and non-statutory landscape designations, indicating national or local value and a range of factors including landscape condition, quality and intactness, scenic quality, rarity, representativeness (whether it includes a feature or element that is an especially important example of that type), presence of features of conservation interest (ecological, historical, cultural), recreational value, perceptual aspects (wildness and/or tranquillity) and cultural or historical associations with, for example, writers, artists, historical events. Following consideration of these aspects an overall landscape value is described.

The Setting of the Site

The extent of the setting of the site landscape receptor is determined by the area from which the site is visible from and is illustrated on figure 6 accompanying this appraisal. In more detail it is defined by; the disused railway, topped by mature trees, which sweeps along its south eastern boundary and encloses the area almost completely aside from glimpsed views under railway bridges; a combination of rising and undulating landform and bands of mature trees to the north west; and the hedgerows and curvature of the B4267 Lavernock Road to the north east and the south west. The key characteristics of the setting of the site are described below:

- Cosmeston Lakes form a low, open and flat point to the setting with the landscape rising sharply towards outcrops to the north and west and more gradually to the south;
- The flat and reflective surface of the lakes allow a sense of openness in an otherwise relatively enclosed landscape;
- The disused railway embankment forms a dominant physical feature which encloses the setting to the south east

and is sided and topped by mature vegetation and scrub;

- Built form is varied and scattered within the setting including; the stone walls and thatched roofs of the buildings within Cosmeston Medieval Village, the white and cream rendered buildings of the Cosmeston Medieval Village Museum and the Cosmeston Lakes Visitor Centre and Café, the modern red and yellow brick buildings, with pantile roofs, found on the southern fringes of Cosmeston settlement and the buildings at Lower Cosmeston Farm and Livery which include yellow brick dwelling with slate roof, and stone and metal sheds with a variety of distinctively coloured metal roofs in red, green and grey well as a navy cylindrical slurry tank;
- Landcover is varied consisting of small-scale pasture fields to the south of Lavernock Road and Country Park (including lakes, car park, visitor centre, medieval village, and grassland) to the north of Lavernock Road;
- The B4267 Lavernock Road bisects the setting, with fast moving and frequent traffic which contributes to activity and noise throughout the setting, the road is wide with regular streetlamps and has an urban feel;
- Fort Road and St Mary's Well Bay Road are more quiet roads within the setting and Fort Road in particular is extremely narrow and enclosed by hedgerow set upon bunds giving a more historic characteristic;
- Field boundaries mainly consist of hedgerow, some well maintained, and some overgrown, with scattered areas of scrub;
- Thick bands of woodland siding the disused railway embankment and around the lakes coupled with tree belt field boundaries form a distinctive green connecting corridor element to the landscape;
- The public have open access to the landscape within the Country Park and there are also a number of footpaths and a bridleway set within, contributing to an active area for human recreational activity;
- The combination of the recreational activities of the Country Park and car park, and the fast-moving B4267 result in a generally busy landscape;
- In areas where the tree cover does not dominate the eyeline and the vegetation opens up, such as within the grassland areas of the Country Park and beside the lakes, the ridgeline which runs along the coastline provides an backdrop element to the setting.

The key aspects which contribute to an assessment of the value of the setting include:

- Over half of the setting is designated as Country Park, a recreational feature of value for the local community;
- Cosmeston Lakes Country Park has a plethora of different habitats and Cosmeston Lakes is designated as a Site of Special Scientific Interest;
- The landscape condition is mixed, the farmland to the south of Lavernock Road has an unkept appearance in parts with fields ungrazed and hedgerow and scrub with a sense of wildness, farm buildings and boundary fencing at Lower Cosmeston Farm has become degraded. In parts however hedgerows are well maintained. The Country Park is heavily used but reasonably maintained;
- The undulating nature of the rising landscape towards the edges of the setting contribute to a scenic quality of longer views across the grassland and lakes of the Country Park towards the ridgeline which runs along the coast contributing to scenic quality of the setting; and
- Cosmeston Medieval Village forms a distinctive historic feature to the area albeit reconstructed, providing a sense of place and aesthetic quality within its immediate surroundings within the Country Park.

Based on the above assessments which include a local level of value, and moderate sense of place the overall landscape value of the setting is described as **Medium**.

The Setting of Cosmeston Medieval Village

This landscape receptor is formed of a reconstructed medieval village and its immediate surroundings. The site is a historical asset and tourist attraction. The extent of the setting of Cosmeston Medieval Village is defined by the field in which the village is set and is visible (the village is visually enclosed by hedgerow and tree belt boundaries within its immediate proximity) and is illustrated on figure 9 accompanying this appraisal. Key characteristics of the setting of Cosmeston Medieval Village landscape is described below:

- The small area of the Cosmeston Medieval Village is laid on flat ground and has some bunded areas in association with the village;
- This reconstructed settlement is built in a cluster format with buildings of stone walls and thatched roofs as well as a white rendered building which is the Museum;
- The medieval village is accessed via timber gates and is accessed via foot only. There is a short length of vehicular accessed road, which leads from a junction from the B4267, Lavernock Road to the museum building;

- The boundary to the south east along Lavernock Road consists of overgrown hedgerow and trees, the boundaries to the rest of the village consist of timber post and rail;
- The village has a well-maintained feel and is landscaped with mown grass and bands of shrubs and perennials which may have been used for culinary and medicinal use including lavender and sage;
- The village is a tourist attraction and has the potential to be busy and active during opening hours;
- The busy adjacent B427, Lavernock Road maintains regular noise of fast moving traffic; and
- Due to hedgerow and trees belts a short distance away within the Country Park there is a feeling of enclosure and intimacy, creating a strong sense of place.

The key aspects which contribute to an assessment of the value of Cosmeston Medieval Village include:

- Cosmeston Medieval Village forms a distinctive historic feature to the area albeit reconstructed, providing a sense of place and aesthetic quality within its immediate surroundings within the Country Park;
- The attraction forms a rare insight into medieval life and is a well valued visitor attraction and
- The attraction is well-maintained.

Based on the above assessments which include a level of value which is considered highly at a national scale and with a distinctive sense of place the overall landscape value of the setting is described as **High**.

The Green Wedge

The extents of the Green Wedge of Penarth to Sully are defined on the interactive map associated with the Vale of Glamorgan Local Development Plan (LDP) 2011-2026 and are illustrated on figure 4 accompanying this appraisal. The key characteristics below have been extracted from the Green Wedge Background Paper (2013).

- 'rolling, undulating lowland'
- 'a mosaic of pastoral fields enclosed by hedgerows that are often overgrown.'
- 'The dismantled railway line that bisects the area creates a strong edge and provides a feeling of enclosure in some locations.'
- 'generally undeveloped however Lavernock Farm in the south east has been developed as a substantial campsite/holiday village and there are caravan parks at St Mary's Well Bay and Swanbridge.'

04: Description of Landscape Baseline (continued)

- *‘The feeling of tranquillity and rural character has been affected by these developments which together with some improved and extended properties create a suburban feel in some areas.’*
- *‘Although views of the sea are more limited inland the area provides an important backcloth and essentially a rural hinterland.’*

Based on the extract above and field study the landscape value of the Green Wedge has been assessed as follows:

- The Penarth Coast Site of Special Scientific Interest runs along the coastline of the Green Wedge;
- Large tracts of the Green Wedge consist of intact hedgerows and historic field patterns;
- There are areas of the Green Wedge that have become degraded in landscape terms due to the presence of built form including settlement and caravan parks, as well as the B4267 which cuts across the agricultural landscape and creates an urban feel;
- The area has a distinctive coastal hinterland feel, with wind swept trees and high cliffs, with tranquil qualities when situated away from the road and holiday parks;
- The area is popular with tourists who come to the holiday parks and also those who are walking along the Welsh Coast Path Long Distance Path;

Despite the mixed condition of the landscape and lack of designation the area clearly has a pull for tourists (evidenced by the presence of 3 caravan parks and associated facilities), as well as the extent of the Welsh Coast Path which runs through the area, it has scenic qualities and a moderate sense of place and therefore the overall landscape value of the setting is described as **Medium**.

05: Description of Visual Baseline

Introduction and Methodology

The ZTV has been established by initial analysis of topographic maps, 3D digital modelling and terrain analysis and provides the maximum theoretical visibility of the proposed development, based on a ridge height of 8.6m. An indicative 10.0m height has been allocated to significant areas of vegetation. The data is based on a viewer height of 1.6m throughout the study area.

An assessment of the views available to the public, and from residential dwellings to the site has been undertaken, by walking and driving (as appropriate) local roads and rights of way. A summary of potential viewpoints is described below, with a table illustrating why certain viewpoints have been scoped out. Through analysis of the ZTV and fieldwork the Visual Envelope has been refined and 6 photo viewpoints have been identified to represent the views of sensitive visual receptors in a range of locations and from various viewing distances.

Range of People and Places Potentially Affected

Views from residential locations

Although the ZTV shows visibility from Cosmeston and Lower Penarth a drive around was carried out and views towards site were precluded due to intervening buildings. Views from residential developments are limited due to the rural location of the site. The closest dwelling is found at Lower Cosmeston Farm immediately to the north of site, however built form within the rest of the livery grounds of this farm prevents views towards the majority of the site, with a narrow window of view towards the northern corner of site from the ground floor. There may however be some views of the site from the first floor of this dwelling towards the northern and southern corners of the site above the rest of the buildings within the farm.

South of the site there are a few dwellings along Fort Road, these are set back and the intervening vegetation and disused railway embankment largely prevents views towards site. In addition the cottages south of the disused railway embankment are facing away from the site. A view from the roadside beside these cottages is however covered in viewpoint 3, but assessed as a road user view. The cottage north of the railway embankment does face the southern corner of the site but views are likely to be heavily filtered by intervening vegetation.

North of the site dwellings on southern boundaries of the settlement of Cosmeston, and namely those on Upper Cosmeston Farm road may receive some views towards the south eastern corner of the site. It was not possible to gain representative views from these dwellings as the gaps between the buildings

were too small. However due to the angle of the buildings within Upper Cosmeston Farm road, direct views towards site are not present and the built form at Lower Cosmeston Farm will likely preclude views towards the majority of the site, as such these receptors are not deemed to be largely affected.

No residential viewpoints have been selected for this appraisal as there are no properties with direct and open views of site and where partial towards the site may be available from properties these were inaccessible.

Views from Public Rights of Way and Cycle Routes

There are several Public Rights of Way within the study area, including footpaths, a Bridleway and a Long Distance Path. The key Public Rights of Way and cycleways which have been identified to have potential views are as follows:

- The Public Right of Way running westward from the site L1/3/1, shown within viewpoint 6.
- The Public Right of Way running westward from the site S13/2/1. Views are filtered by intervening vegetation (see description in table below and photograph illustrated on figure 8 accompanying this appraisal).
- The Public Bridleway which runs from the Lavernock Road, north west towards Penarth in the north of the study area. (P1/14/2). This route is tree lined and therefore views are truncated by vegetation in the foreground except in small parts where gaps occur close to site, similar to view experienced from Public Right of Way L1/3/1, shown in viewpoint 6.
- The Long Distance Path – Welsh Coast Path, which runs along the coastline around the study area. This footpath is sided by thick bands of Hawthorn hedge on either side, where gaps occur views are prevented due to intervening topography.
- Route 88 of the National Cycle Network travels north to south through Lower Penarth and Cosmeston, terminating at the southern fringe of Cosmeston. The cycle network runs through built form which prevents views onto the site.

Views from Roads

While the ZTV shows visibility from the roads north west of site where Cross Common Road meets with Sully Road, a drive around was carried out and views towards site appeared to be precluded by intervening topography and vegetation. The B4267 provides the principal road through the study area, elsewhere roads are minor. The key roads which have been

identified to have potential views are as follows:

- B4267 Lavernock Road running north east to south west through the study area and bounding the site to the north. There are some views to site, these are covered in viewpoints 2 and 5.
- Swanbridge Road/Sully Road running north south in the western part of the study area. Views are precluded by intervening topography.
- Fort Road which runs south from Lavernock Road and bounds the site to the west. There are some views to site, these are covered in viewpoints 3 and 4.
- South west of site – St Marys Well Bay Road and Beach Road at Swanbridge. Views are precluded by vegetation and intervening topography.

Roads within the settlement of Cosmeston have been omitted as they will likely be truncated by existing built form. Views from Upper Cosmeston Farm road are covered within the representative residential views above.

Views from other Publicly Viewable Locations:

There are possible glimpsed views from the golf course of the Glamorganshire Golf Club, in particular from the ridgeline which reaches 45m AOD just south of Penarth Cemetery. There are however significant bands of vegetation within the course which helps to filter views. A representative view is shown from Penarth Cemetery, however topography of the ridgeline prevents views of the site, illustrated on a photograph A within figure 10 accompanying this appraisal.

Cosmeston Lakes, Country Park located north and north west of site forms a large area where the public may be susceptible to views of the site as they are able to roam freely across this area. Views within the Country Park are largely screened by significant tree lines, with the exception of where the vegetation has gaps. Viewpoints 1 and 6 give a representation of views towards site where they do occur.

Viewpoints Scoped Out or Not Accessible

No views or significant change in visual effect is expected to occur at the locations listed in the table below. These locations were visited, and the view recorded as part of the baseline appraisal. Where access was not available this has been noted.

Table 1 outlines justifications for omission of viewpoints from the detailed visual appraisal (location of these photographs and the photographs can be found illustrated within figure 10 accompanying this appraisal).

Table 1: Views scope out

Potential Viewpoint	Reason for Omission
Dwelling at Lower Cosmeston Farm (residential, from upper floor)	Not accessible. Views are likely to be of small parts of the site from upper floor of building.
Glamorganshire Golf club (recreational users) (Photograph A)	Not accessible, representative photograph taken from Penarth Cemetery.
Upper Cosmeston Farm (residential) (Photograph B)	Inaccessible, representative view taken from the road showing glimpsed view between buildings.
Long Distance Path – Welsh Coast Path (pedestrians) (Photograph C)	View truncated by intervening topography.
Public Right of Way at St Mary Well Road (pedestrians) (Photograph D)	View truncated by intervening vegetation.

05: Description of Visual Baseline (continued)

Overview of Visual Envelope

The resulting Visual Envelope is restricted to a radius of around 500m from site. The extents of the Visual Envelope are defined by; the disused railway embankment, topped by mature trees, which sweeps along its south eastern boundary and encloses the area almost completely aside from glimpsed views under railway bridges; a combination of rising and undulating landform and bands of mature trees to the north west; and the hedgerows and curvature of the B4267 Lavernock Road to the north east and the south west.

Selected Viewpoints Include:

The baseline study identifies the people in the area and important, designated or protected views potentially affected by the development. Viewpoints were selected to represent the various visual receptor types in the study area including residential, recreational, educational, transport as well as road users. Viewpoints were also selected to represent specific views valued for their scenic quality or cultural associations or to demonstrate a specific issue. The sensitivity of these receptors is assessed in the Analysis of Potential Visual Effects section of this appraisal. The above is illustrated within figure 8 accompanying this appraisal.

- Viewpoint 1 - Cosmeston Lakes Country Park, north of the lakes and north west of site (recreational users)
- Viewpoint 2 - Lavernock Road, immediately north west of site (road users and pedestrians)
- Viewpoint 3 - Fort Road, at Ty-r-orsaf and 2 Fort Road cottages, south of site (road users)
- Viewpoint 4 - Fort Road, west of site (road users)
- Viewpoint 5 - Lavernock Road and Country Park Bridleway, south west of site (road users and recreational users)
- Viewpoint 6 - Public Right of Way within Cosmeston Lakes Country Park, north of site (recreational users).

06: Proposed Development and Mitigation

Landscape Mitigation

Figure 11 accompanying this appraisal illustrates the proposed site mitigation.

The details of the scheme assessed may be summarised as the development of a new primary school with associated car parking. The proposals consist of a tarmac access road and drop off area, a parking area, a 2 storey school building of 3000m² and 9m height, hard landscape play areas, a multi-use games area with 3m high weldmesh fence, a trim trail, grassed playing fields and boundary fencing of 2.4m high weldmesh. This is illustrated on figure 3 accompanying this appraisal. The landscape scheme and mitigation measures include:

1. NORTH WEST BOUNDARY Retain existing hedge and plant tree belt along Lavernock Road.
PURPOSE: to tie in with landscape character of hedgerow trees on opposite side of Lavernock Road, to screen views towards proposed built form from Lavernock Road and Cosmeston Medieval Village and to protect setting of Cosmeston Medieval Village.
2. NORTH EAST BOUNDARY Plant tree belt or hedge towards north and retain existing hedge further south
PURPOSE: to screen potential views from elevated areas of Cosmeston Lakes Country Park and Glamorganshire Golf Club course, to tie in with the thick tree belt connecting corridor characteristic which is a common theme in the area and to reinforce field pattern.
3. SOUTH EAST Retain existing trees along disused railway embankment.
PURPOSE: to retain continuous tree line along disused railway embankment and provide green connectivity.
4. SOUTH WEST Retain existing hedgerow and plant tree belt.
PURPOSE: to retain existing character of mature hedgerow sided lane (Fort Road), to tie in with the thick wooded belt connecting corridor characteristic which is a common theme in the area and to reinforce field pattern.
5. BUILT FORM Materials and massing of proposed built form to tie in with local vernacular and not be reflective.
PURPOSE: to tie in with local landscape character and to not create a stand out feature in the landscape.

07: Analysis of Potential Landscape Effects

Introduction

Interactions between the proposed development and landscape receptors would potentially occur in two ways; through direct loss of landscape elements (i.e. subtractive changes which change landscape character) or through additions which change landscape character (additive). The proposed development utilises agricultural land. This land use would be replaced by educational facilities. The proposed development would involve the retention of vegetation forming the boundaries of the site. No tree removal is expected, however short sections of hedgerow will need to be removed to allow for access. Change in character would be largely as a result of addition of built form on the site.

For the purposes of this appraisal three landscape receptors have been identified which are deemed as sensitive and having the potential of being affected by the proposed development. For each of the landscape receptors a set of key characteristics has been set out and the value of each landscape receptor has been assessed. The selected landscape receptors and their landscape sensitivity is listed below:

- The setting of the site (area as defined by the Visual Envelope) – medium value
- The setting of Cosmeston Medieval Village – high value
- The Green Wedge – medium value

Landscape Effects

The sensitivity of each of the landscape receptors has been evaluated by considering the existing value of the landscape and its susceptibility to the type of change arising from the proposed development. Following this, consideration of the likely interaction between the proposed development and landscape receptors is set out, with an assessment of likely magnitude of change and finally an appraisal of likely effects on each of the landscape receptors.

Description of effect to the landscape character of the setting of the site

The setting of the site is valued locally as it contains part of the Country Park, it has a moderate sense of place and has been assessed within the landscape baseline of this appraisal as having medium value overall.

The landscape condition has been described as mixed, with some areas well maintained and others, particularly in the case of the adjacent Lower Cosmeston Farm, which appear to have become degraded. It is suggested therefore that the setting has

moderate susceptibility and the potential to accommodate the proposed development.

The overall sensitivity is described as **Medium**.

The change to the landscape setting of the site is described as follows:

The change proposed will include the introduction of an element of built form, with a vernacular in keeping with the materials found within buildings elsewhere within the setting. While the proposed development introduces built form into an existing pasture, the neighbouring Lower Cosmeston Farm has an existing presence of built form immediately adjacent to site and the position of the new school ties in with this grain. The proposed built form will be in line with good design principles and may improve the aesthetic of the built form in this cluster. At the newly formed access road into site the built form of the school will form a prominent new feature in the landscape. Elsewhere the ridgeline of the school will be a new element providing built form set behind hedgerow, similar in composition to the neighbouring farm.

The proposed car park, access road and vehicular activity in this location is not a new element in the landscape as there is a car park at the opposite Country Park which is significant in size and generally busy.

Proposed weldmesh fencing around the multi use games area and the boundary of the site will add a new form of boundary treatment to the setting, but will be situated in close adjacency to existing hedgerow in most cases and therefore not overly prominent with the exception of the access into site.

The proposed development will retain the existing field pattern and hedgerow removal will be limited to where access into the site is required. The landscape strategy seeks to enhance the setting, taking cues from the frequently occurring tree belt field boundaries which have a connectivity to one another throughout the area. Hedgerows and tree planting are proposed along the field boundaries to the north west, north east and south west and trees will be just about visible above existing hedgerows (depending on maintenance) following completion of the school. Over time as these trees mature they will tie in with the existing landscape character and the green connectivity will be improved. The built form of the proposed ridgeline will become less apparent in the composition of the landscape over time as planting matures.

In summary the landscape character of the setting of the site is

currently mixed and as such it may be assessed that the setting of the site can accommodate the changes proposed within the development. The proposed development will introduce built form in an existing pasture landscape however many of the elements of the proposed development are fitting with the surrounding landscape. The magnitude of change to the setting of the site is predicted is to be **Low**.

The medium sensitivity of the landscape receptor combined with a low magnitude of change result in a minor level of effect on the setting of the site. The proposed development will make an alteration within the landscape to a small proportion of the setting, altering an area of pasture into an educational setting with school building surrounded by Multi Use Games Area, playing fields and car parking.

Description of effect to the landscape character of the setting of Cosmeston Medieval Village

The value of Cosmeston Medieval Village is considered highly at a national scale and the venue has a distinctive sense of place. The overall landscape value of the setting has been described as High.

The landscape condition has been described as well maintained and provides a rare insight into medieval life. It is suggested therefore that the setting has high susceptibility due to the introduction of modern architecture in a historic setting.

The overall sensitivity is described as **High**.

The change to the landscape setting of Cosmeston Medieval Village is described as follows:

An element of modern architecture will be introduced in a horizontal plane above the existing tree belt that currently provides the green backdrop to the village. The proposed new access into the site and elements of built form, including the school, fencing and car parking may be partially perceived when entering into the village setting however these elements will be combined with the existing fast moving Lavernock Road which has an urban feel. All other elements of the village and the setting will remain the same.

The strong sense of place provided by the composition of the historic buildings and enclosure and intimacy of the surrounding vegetation will be retained. The introduction of built form into the backdrop of this setting is expected to make a partial alteration to the scene and have a **Medium** magnitude of change on this landscape receptor.

The high sensitivity of the landscape receptor combined with a medium magnitude of change results in a moderate level of effect on the setting of Cosmeston Medieval Village. This moderate effect will be noticeable and will introduce an element of built form in a largely green setting where no modern built form is currently present.

Description of effect to the landscape character and openness of the Green Wedge

Despite the mixed condition of the landscape and lack of designation the area clearly has a pull for tourists (evidenced by the presence of 3 caravan parks and associated facilities), as well as the extent of the Welsh Coast Path which runs through the area, it has scenic qualities and a moderate sense of place and therefore the overall landscape value of the setting is described as **Medium**.

The overall landscape condition is mixed with large tracts of land that consist of intact hedgerows and historic field patterns, while other areas that have become degraded in landscape terms due to the presence of built form including settlement and caravan parks, as well as the B4267 which bounds the agricultural landscape to the north and creates an urban feel. It is suggested therefore that the Green Wedge has moderate susceptibility and the potential to accommodate the proposed development.

The overall sensitivity is described as **Medium**.

The change to the landscape within the Green Wedge is described as follows, (and is similar in parts to changes anticipated for the setting of the site):

The change proposed will include the introduction of an element of built form, with a vernacular in keeping with the materials found within buildings elsewhere within the setting. While the proposed development introduces built form into an existing pasture, the neighbouring Lower Cosmeston Farm has an existing presence of built form immediately adjacent to site and the position of the new school ties in with this grain. The new built form is unlikely to have a noticeable effect on the perceived frequency of built form within the Green Wedge. The built form will be in line with good design principles and may improve the aesthetic of the built form in this cluster. At the newly formed access road into site the built form of the school will form a prominent new feature in the landscape. Elsewhere the ridgeline of the school will be a new element providing built form set behind hedgerow, similar in composition to the neighbouring farm.

07: Analysis of Potential Landscape Effects (continued)

The proposed car park, access road, vehicular activity, weldmesh fencing around the multi-use games area and the boundary of the site will add a new elements and materials to this part of the Green Wedge.

The proposed development will retain the existing field pattern and hedgerow removal will be limited to where access into the site is required. The landscape strategy seeks to enhance the setting, taking cues from the frequently occurring tree belt field boundaries which have a connectivity to one another throughout the area. Hedgerows and tree planting are proposed along the field boundaries to the north west, north east and south west and trees will be just about visible above existing hedgerows (depending on maintenance) following completion of the school. Over time as these trees mature they will tie in with the existing landscape character and contribute further to the rural hinterland / backcloth landscape as is described for the swath of land that is designated as Green Wedge. The built form of the proposed ridgeline will become less apparent in the composition of the landscape over time as planting matures.

Given the scale of the development in relation to the scale of the Green Wedge; the proximity of the proposed building to the cluster of buildings at Lower Cosmeston Farm and the strong landscape strategy proposed for the site (which is in keeping with the local landscape character) the proposed development is described as having a low magnitude of change on the landscape receptor of the Green Wedge.

The proposed development will be situated in a small part of the northern reach of the Green Wedge. In planning terms the Penarth to Sully Green Wedge has been designated primarily to prevent urban coalescence, protect the openness of the land and to protect vulnerable undeveloped land. Maintaining the setting of the built-up area of Penarth and Sully are of secondary concern. The effect upon urban coalescence, openness and vulnerable land are considered here.

The Green Wedge as a whole is described (within the Green Wedge Background Paper, 2013) as being generally undeveloped aside from substantial holiday developments and associated buildings along the coastline however this appraisal notes that the multiple buildings at Lower Cosmeston Farm is not noted within the description of this area despite prominent visibility along Lavernock Road. The presence of the degraded buildings at Lower Cosmeston Farm reinforces invulnerability of this undeveloped parcel of land.

With regards to maintaining the openness of the land, the proposal of a single building with a ridge height similar to the

barns in the adjacent farm, using building materials and colour that are in keeping with the setting will help the structure to blend into the landscape. The rest of the proposals include playing fields and parking aiming to maintain the open nature of the land.

Visibility of the site is limited in context, with glimpsed views of the proposed ridgeline likely to be available from a small number of locations within the Green Wedge to the immediate south. The historic and narrow Fort Road with its solid hedgerow, which is raised on mounding above the level of the road, provides a solid and defined edge which separates the site from the Green Wedge to the south both visually and physically. The site has no visibility from Sully and limited visibility from the southern fringes of Cosmeston and is therefore considered to restrict the potential coalescence of settlements from a visual perspective from the ground.

The medium sensitivity of the landscape receptor combined with a low magnitude of change result in a minor level of effect on the Green Wedge. This proposed development will make an alteration in the landscape to a small proportion of the Green Wedge in an area which has developed influences adjacent to it. The proposed development has limited wider visibility and seeks to minimise built form and maximise on open space.

Table 2: Summary of landscape effects on the landscape receptors

Landscape receptor: The Setting of the Site	
Sensitivity	Medium
Magnitude of change	Low
Level of landscape effect	Minor
Landscape receptor: The Setting of Cosmeston Medieval Village	
Sensitivity	High
Magnitude of change	Low
Level of landscape effect	Moderate
Landscape receptor: The Green Wedge	
Sensitivity	Medium
Magnitude of change	Low
Level of landscape effect	Minor

Description of effect to the Landscape Character Areas

The National Landscape Character Area assessment helps to set the scene for the study area. The NLCA35 Cardiff, Barry and Newport Landscape Character Area which the site lies within is described as having an urban fringe character, with a gently rolling pastoral landscape of medium scale field pattern. These characteristics will generally remain the same, upon implementation of the proposed development.

The Vale of Glamorgan local landscape character assessment allocates the majority of the study area within this appraisal as Landscape Character Area No. 24 Sully Ridge / Cosmeston. The description of this character area is not expected to change to a great extent following the implementation of the proposals. The characteristics which are pertinent to the site and will remain largely the same include *'sense of isolation is compromised by the adjacent suburbanisation (...), the field boundaries are formed by well-maintained hedge's and 'close to settlements more disturbance and disruption to the landscape with visual settlement edge issues of litter, fly tipping, discordant boundaries.'*

Summary

Effects predicted to be minor or negligible are considered to be 'non-important'. Effects appraised as moderate may be important with reasoned justification. Major effects are considered to be 'important' and require weighing in the planning balance against other benefits of the proposed development.

The setting of the site has mixed condition and characteristics and a moderate sensitivity to change, as a whole the changes proposed are likely to have a low magnitude of change and therefore the level of effect is anticipated to be minor.

The proposals will effect a small part of the Green Wedge as a whole and will be in close adjacency to an existing cluster of degraded buildings, the magnitude of change to the Green Wedge as a whole is therefore likely to be low resulting in an anticipated minor level of effect. A large part of the site is to remain open with playing fields and parking, while a smaller part of site will become built form, the open nature of the Green Wedge is therefore to be maintained for a large part of the site.

There is anticipated to be a moderate level of effect, which would be considered important, on the setting of Cosmeston Medieval Village due to the proposed development being set in close range, and the backdrop, of this intimate environment however following maturation of the landscape proposals the presence of the ridgeline to the proposed school will be replaced by an additional green backdrop to the village.

08: Analysis of Potential Visual Effects

Introduction

Visual effects relate to changes that arise in the composition of available views as a result of changes to the landscape, to people's responses to the changes and to the overall effects with respect to visual amenity. Effects upon these receptors are derived through the changes to the views experienced and through this, the change to the overall visual amenity of the study area as brought about by the proposed development.

An assessment of the effects at each viewpoint has been undertaken in detail, and a summary of the results of this assessment are provided below in text and table format. The viewpoints are taken from a variety of locations including roads, Public Rights of Way and the Country Park. The viewpoints and their sensitivity are listed below and located in Appendix B:

- Viewpoint 1 - Cosmeston Lakes Country Park – medium sensitivity
- Viewpoint 2 - Lavernock Road – low sensitivity
- Viewpoint 3 - Fort Road, at Ty-r-orsaf and 2 Fort Road cottages, – medium sensitivity
- Viewpoint 4 - Fort Road – medium sensitivity
- Viewpoint 5 - Lavernock Road and Country Park Bridleway – low sensitivity
- Viewpoint 6 - Public Right of Way within Cosmeston Lakes Country Park – high sensitivity.

Visual appraisal

The level of effect upon each visual receptor has been described in the table below, based on a combination of the sensitivity of viewer (assigned within the baseline section of this appraisal) and the predicted magnitude of change. A description of the predicted magnitude of change is also outlined in the table below. The level of effect is calculated using professional judgement alongside the 'Importance of effects' matrix within Appendix A accompanying this appraisal.

Table 3 adjacent is a summary of visual effects

Photo viewpoint 1: Cosmeston Lakes Country Park, north of the lakes and north west of site Elevation: c.15m AOD Receptor type: Pedestrians Approximate distance from site: 500m		Photo viewpoint 4: Fort Road, west of site Elevation: c.15m AOD Receptor type: Road users Approximate distance from site: c3m	
Sensitivity	Medium. Pedestrians are on a leisurely pursuit within the Country Park and are therefore deemed as having medium sensitivity.	Sensitivity	Medium. Fort Road is a dead-end route leading to the Marconi Holiday Village, people using this route are likely to be more focussed on the scenic qualities of the landscape, due to many being holiday makers.
Magnitude of change	Negligible. The proposed development will form a barely noticeable component of the view, with the addition of a ridgeline which will run in line with the barn buildings of the adjacent Lower Cosmeston Farm and livery, the view would be slightly altered for only a small part of this wide view and as such would be similar to the baseline situation.	Magnitude of change	Low. While the ridgeline of the proposed building may be visible from this viewpoint, the boundary vegetation will largely remain the same. As road users will be travelling northward or southward along Fort Road, the ridgeline will be in peripheral view and may not be seen at all due to the height of the hedgerow which sits atop a 1m bank. The proposed vegetation behind this hedge, will add an additional layer of vegetation, which upon planting should be just about visible above the existing hedgerow (depending on cut height) and will over time filter potential views towards the proposed building.
Level of landscape effect	Minor – a small alteration, effecting a small extent of the view.	Level of landscape effect	Minor – a small alteration, affecting peripheral view, and only likely to be experienced from a high chassis vehicle.
Photo viewpoint 2: Lavernock Road, immediately north west of site Elevation: c.12m AOD Receptor type: Road users and pedestrians Approximate distance from site: 10m		Photo viewpoint 5: Lavernock Road and Country Park Bridleway, south west of site Elevation: c.20m AOD Receptor type: Road users, pedestrian and cyclists Approx distance from site: c.300m	
Sensitivity	Overall Low. Road users - Low. Lavernock Road, the B4267 forms the main trunk road through this area, travellers may generally be commuters and their focus is not likely to be on the landscape. Pedestrians - Low. Walkers using the footpath are considered to be of low sensitivity, as the environment adjacent to the road is noisy and fast paced and people are therefore not likely to be on a leisurely pursuit.	Sensitivity	Overall Medium. Road users: Low. Lavernock Road, the B4267 forms the main trunk road through this area, travellers may generally be commuters and their focus is not likely to be on the landscape are therefore deemed as having low sensitivity. Pedestrians: Medium. Pedestrians / cyclists entering the Country Park may have their attention focussed on the landscape and are therefore deemed as medium sensitivity.
Magnitude of change	High. The proposed development including new entrance, fences, gates, access roads, drop off area, some parking, hard landscape and school building will introduce new elements across a large part of this view. The proposed vegetation behind the existing hedge, will add an additional layer of vegetation, which upon planting should be just about visible above the existing hedgerow (depending on cut height) and will over time filter potential views towards the proposed building.	Magnitude of change	Low. The proposed new opening into the site will form only a small component of this view which is unlikely to be discernible. The ridgeline of the proposed building will introduce additional built form in the midground of this view but will be filtered by the existing hedgerow vegetation in the foreground of this view.
Level of landscape effect	Moderate – a noticeable alteration, affecting a large part of this view. It is noted however that this view is specific to this location and that 30 or so metres either way the view into the site disappears from view due to the existing hedgerow. The view is transient, providing a snippet glance within peripheral vision.	Level of landscape effect	Minor – a small alteration, affecting a small extent of the view.
Photo viewpoint 3: Fort Road, at Ty-r-orsaf and 2 Fort Road cottages, south of site Elevation: c.30m AOD Receptor type: Road users Approximate distance from site: c.200m		Photo viewpoint 6: Public Right of Way within Cosmeston Lakes Country Park, north west of site. Elevation: c.12m AOD Receptor type: Pedestrians Approximate distance from site: c.30m	
Sensitivity	Medium. Fort Road is a dead-end route leading to the Marconi Holiday Village, people using this route are likely to be more focussed on the scenic qualities of the landscape, due to many being holiday makers. While this photograph is taken in front of the residential developments of Ty-r-osaf and 2 Fort Road Cottages it is not listed here as a residential view as the cottages are set back and windows are facing away from site.	Sensitivity	High. Pedestrians are on a leisurely pursuit within the Country Park and are likely using this particular footpath to enjoy views of the reconstructed medieval village and are therefore deemed as having high sensitivity.
Magnitude of change	Negligible. The view of the proposed school building will replace the existing view of the buildings at Lower Cosmeston Farm, at a slightly closer proximity. The proposed building would constitute a very small area in the background of this view and as such the view would be similar to the baseline situation.	Magnitude of change	Medium. The ridgeline of the proposed building will introduce an additional background to this view, which may be present for a wide extent of the view. The proposed vegetation set adjacent to the field boundaries of site will add an additional layer of vegetation, which upon planting would not be visible due to the intervening vegetation, however over time this tree line will filter potential views towards the proposed building.
Level of landscape effect	Negligible - No discernible deterioration.	Level of landscape effect	Moderate – a noticeable alteration to the view, adding a new built form backdrop, which will extend across a large extent of the view.

08: Analysis of Potential Visual Effects (continued)

Summary

The site is relatively well enclosed due to the presence of the ridgeline which runs along the coast, the parallel running disused railway embankment and outcrops to the west and north. In addition, the landscape surrounding the site has significant tree belt field boundaries, woodland blocks and continuous hedgerows contributing to a layering of vegetation and a well wooded appearance. Consequently, the Visual Envelope of the site reaches no more than 500m radius from the site. Views that do occur are often glimpsed views or filtered views where the vegetation opens up adjacent to waterbodies or within grassland settings. Viewpoints have been taken from where the best opportunities of viewing the site can be found and have resulted in the following analysis.

When considering effects from viewpoints from within 30m from site, where they occur, the level of effect of the proposed development is deemed to be moderate, as there will be a notable change in the view. When considering these views from Lavernock Road these views are transient, available for a short period of time, and therefore deemed non-important. When considering views from within the Country Park, and in the proximity of Cosmeston Medieval Village these views have greater sensitivity and are therefore deemed as important however following maturation of the landscape proposals within the site views will become filtered and the effects will reduce over time.

Intervening vegetation limits views beyond the distance of 30m and where views do occur they are limited to the ridgeline of the proposed development which generally forms part of a wider view and is considered in context of the degrading nature of the ridgelines of the adjacent Lower Cosmeston Farm. The effect on these further afield viewpoints is minor to negligible and deemed non-important.

09: Potential Cumulative Effects with Adjacent Masterplan

Introduction to Proposed Adjacent Development

Although this appraisal has not set out to assess cumulative effects of neighbouring emerging developments it is noted that there is an existing proposal for the parcel of land that lies between the site and the southern fringes of Cosmeston. This proposal is for a mixed use development of 576 residential dwellings; a two form entry primary school; access off Lavernock Road; public open space and associated landscape including retention of the existing vegetation and a series of swales and reed beds. Notably the proposals include the removal of farm buildings at Lower Cosmeston Farm.

A Landscape and Visual Impact Assessment (LVIA) chapter has been developed as part of an Environmental Impact Assessment. The conclusion of which states:

‘The proposed development on Upper Cosmeston Farm will have some significant adverse effects, even at 15 Years of operation, as the proposal is a large scale mixed use development on what is now ‘greenfield’ agricultural land. The site is adjacent to existing settlement edge of Cosmeston. The landform of the site is undulating which, alongside existing vegetation belts to be retained within the site proposals, reduces and breaks up the overall visual appearance and effects of the development proposed, despite its size. This LVIA has demonstrated that in respect of the ‘in principle’ issues, the site is acceptable in landscape character and visual amenity terms and the allocation of the site for housing has to be seen to be a clear signal from the council as to the potential of the site and its overall acceptability in principle.

Views towards the Application Site from publicly accessible locations beyond the site boundaries are limited in extent and should not be an obstacle to its development.

Overall, and even with what are deemed to be ‘significant’ effects in EIA terms, EDP concludes that there are few highly sensitive receptors (such as the Wales Coastal Footpath, Cosmeston Lakes Country Park and Penarth Pier) or receptors of higher experience (such as those travelling past the site along Lavernock Road) that would be affected significantly by the proposal in the long term. Receptors likely to experience residual impacts beyond year 15 are: the landscape character of the site itself, an unavoidable impact when converting a greenfield site to built form; located on the edges of existing residential properties directly adjacent to the site’s northern boundary; and upon views from localised PRoW L1/4/1 and S13/2/1. All other significant impacts identified at Year 1 are anticipated to

reduce successfully over time through appropriate material and design choices and the maturation of mitigation planting, being not significant by Year 15. Furthermore, it is apparent from the proposals that the site would benefit significantly from the scheme proposed in a number of ways; not least through the improvements to green infrastructure, which would encourage biodiversity, strengthen character features where retained and improve both pedestrian and ecological connectivity.’

The summary concludes that effects would be significant in the long term on landscape character due to the scale of the development and the loss of agricultural land, but that the proposals include a significant improvement to the diversity of habitat and the potential to strengthen character from this perspective. Visual effects are minimal and should not be seen as an obstacle to development. The strong landscape strategy proposed would in many parts mean that potential effects on visual receptors would reduce over time.

Cumulative effects

It is noted that due to siting of the proposals of the adjacent masterplan, largely upon high ground and within close proximity to the proposed development assessed within this appraisal the majority of the viewpoints in this appraisal would experience cumulative visual effects if both proposals were developed.

From a landscape character perspective within the area described within this appraisal as ‘the setting of the site’ the proposed development alongside the proposed adjacent masterplan would become significantly suburbanised thus changing the agricultural characteristic of the easterly extent of the setting to an urban settlement characteristic.

The setting of the Cosmeston Medieval Village at its northern extent would likely be affected by the two developments cumulatively, however this may be considered to be in a positive manner given that the buildings which are currently situated to the north of Cosmeston Medieval Village, within Lower Cosmeston Farm, are currently in a degraded condition and would be removed and replaced with largely ground level proposals. The proposed developments combined would be expected to be of high quality in keeping with good design principles and may therefore improve the setting of the village.

A small part of the proposed adjacent masterplan lies within the Green Wedge of Penarth to Sully. The proposals which are set within the Green Wedge consist largely of ground level proposals including pitches, pond, play and parking, with some

housing development. Cumulatively the two developments would mean a reduction of built form within the Green Wedge and therefore a lesser impact on openness.

Summary

The proposed development as described within this LVA includes one proposed building alongside landscape proposals which are generally open in nature. Because the adjacent development is more significant in scale the results of the LVIA for this neighbouring development should be considered with the add on of the cumulative effect of the proposed school set out within this appraisal.

Landscape Character

The combination of the two developments will significantly affect the landscape character of the land south of the settlement of Cosmeston due to the extent of the proposals. Agricultural land will be converted to a mixed use of residential and educational development but with a strong strategy for increasing biodiversity and green connectivity.

Visual Amenity

The well wooded nature of the landscape results in limited views across the study area, however where land does open up views may be available across to the proposed residential development atop the ridgeline along the coast in addition to ridgeline views of the proposed school set out within this appraisal.

10: Conclusion & Addendum

This Landscape and Visual Appraisal has been prepared to assess the likely effects on landscape character and visual amenity arising from the proposed development of a new primary school with associated car parking and landscaping at land south of Cosmeston, Vale of Glamorgan.

A 2km study area has been adopted in order to provide the wider context of the area. The study area is largely made up of pasture set between the settlement areas of Penarth and Sully, with the coast to the east. The study area includes agricultural land, scattered farmsteads, several coastal holiday parks and large areas of recreational landscapes including Cosmeston Lakes Country Park and Glamorganshire Golf Club course.

Landscape Receptors

Three landscape receptors have been identified within the study area and these include the setting of the site, the setting of Cosmeston Medieval Village and the Green Wedge – an area designated in planning context to prevent urban coalescence, protect the openness of land and to protect vulnerable undeveloped land.

Due siting of the proposed built form in close proximity to an existing cluster of buildings at the neighbouring farm a minor the level of effect on the Green Wedge and the setting of the site is expected and is deemed to be non-important. Effect on the open nature of the Green Wedge has been assessed as minimal due the majority of the site being maintained as open. There is however anticipated to be a moderate and important level of effect, on the setting of Cosmeston Medieval Village due to the proposed development being set within the backdrop of this intimate environment. Following maturation of the landscape proposals within the site views will become filtered and the effects will reduce over time.

Visual Amenity

From a visual amenity perspective, the site is relatively well enclosed due to the presence of a ridgeline which runs along the coast, outcrops to the west and north of site as well as significant layers of vegetation throughout the area. The Visual Envelope of the site reaches no more than 500m radius from the site. Views that do occur are often filtered. Six viewpoints were selected to provide a representation of views within the study area.

When considering effects from viewpoints within 30m from site, the level of effect of the proposed development is deemed to be moderate, this being further clarified as non-important when transient and viewed from Lavernock Road and important

when viewed in the context of Cosmeston Medieval Village, from within the Country Park. Views beyond the immediate context of 30m are deemed as having a minor to negligible level of effect following implementation of the proposals and are therefore deemed as non-important.

Cumulative Effects

It is noted that a proposal for a mixed-use development is indicated for land north of the site. It has been identified that the combination of the proposed development in combination with this would significantly effect the landscape character of the land south of the settlement of Cosmeston due to the extent of the proposals. And while the well wooded nature of the landscape results in limited views across the study area, where vegetation does open up, views may be available of the two developments.

Summary

It is concluded that the important effects from a landscape character and visual amenity perspective within the study area are those experienced in context with Cosmeston Medieval Village, this is due to immediate adjacency of the proposed development. The effect will impose an additional backdrop of built form which will have a moderate adverse effect on the setting of the village. Following maturation of the landscape proposals within site views will become filtered and the effects will reduce over time. Elsewhere across the study area landscape and visual amenity effects are minimal and limited in occurrence. The effect on the openness of the Green Wedge is considered to be minimal due to the largely open nature of the proposals.

ADDENDUM – 24th March 2022

Introduction

This Landscape and Visual Appraisal (LVA) has been prepared by HLM on behalf of Vale of Glamorgan Council and assesses the likely effects on landscape and visual amenity arising from the proposed development at Cosmeston, Vale of Glamorgan. This addendum has been produced and submitted as part of an outline planning application submitted to Vale of Glamorgan Council (VGC) for a new primary school with associated car parking and landscaping.

Purpose of addendum

Following review of final design comments since the LVA was produced, the client has adjusted the orientation of the proposed new primary school though 10 degrees east (anticlockwise), to better accommodated external circulation and plant facilities associated with this design. These proposals are consistent with the plans submitted as part of the outline planning application but differ very slightly from those assessed in the LVA.

Overview of visual envelope

The resulting Visual Envelope is restricted to a radius of around 500m from site. The extents of the Visual Envelope are defined by; the disused railway embankment, topped by mature trees, which sweeps along its south-eastern boundary and encloses the area almost completely aside from snippet views under railway bridges; a combination of rising and undulating landform and bands of mature trees to the northwest; and the hedgerows and curvature of the B4267 Lavernock Road to the northeast and the southwest.

Selected viewpoints include:

- Viewpoint 1 – Cosmeston Lakes Country Park, north of the lakes and northwest of site
- Viewpoint 2 – Lavernock Road, immediately northwest of site
- Viewpoint 3 – Fort Road, at Ty-r-orsaf and 2 Fort Road cottages, south of site
- Viewpoint 4 – Fort Road, west of site
- Viewpoint 5 – Lavernock Road and Country Park Bridleway, southwest of site
- Viewpoint 6 – Public Right of Way within Cosmeston Lakes Country Park, north of site

Conclusion of impact on Landscape and Visual Effects assessments

The minor rotation of the primary school building footprint within the site has been assessed not to change the evaluations presented within the LVA as seen from the selected viewpoints named.

The LVA assessments therefore remain consistent with the adjusted proposals and should be assessed accordingly. The programme for consultation workshops, site surveys and final deliverables would be discussed and refined as necessary.

Environmental Dimension Partnership Ltd (2020) *Land at Upper Cosmeston Farm, Environmental Statement Volume 2 Chapter 7: Landscape and Visual*

Landscape Institute and Institute of Environmental Management and Assessment (2013). *Guidelines for Landscape and Visual Impact Assessment 3rd Edition*, Routledge, Abingdon

Natural Resources Wales (2014) *National Landscape Character NLCA35 CARDIFF, BARRY AND NEWPORT*

Natural Resources Wales (date unknown) *LANDMAP South Wales Central Landscape*, <https://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/evidence-to-inform-development-planning/landmap-the-welsh-landscape-baseline/?lang=en>

Vale of Glamorgan Council (2008). *Vale of Glamorgan County Borough Council Designation of Landscape Character Areas*

Vale of Glamorgan Council (2013). *Green Wedge Background Paper*

Vale of Glamorgan Council (2017). *Vale of Glamorgan Local Development Plan (LDP) 2011-2026*

WSP (2016) *Cosmeston Farm - Extended phase 1 habitat assessment*

References

Appendix A: Detailed Methodology

Introduction

Provided within this section is the methodology for this Landscape and Visual Assessment, which has been adopted to ensure a robust appraisal of effects, that conforms to best practice guidance. This assessment is not provided as part of a wider Environmental Impact Assessment (EIA) and therefore does not identify effects as 'significant' in EIA terms.

The LVA identifies, predicts, and evaluates the potential landscape and visual effects likely to result from the proposed development during construction and in years 1 and 15 of operation.

The assessment methodology for assessing landscape and visual effects prepared is principally based on the following best practice guidance:

- Guidelines for Landscape and Visual Impact Assessment – Third Edition (LI/IEMA, 2013); and
- Guidance issued by Natural England, 'Landscape Character Assessments: Identify and describe landscape types', published 2014.

Landscape Baseline

The landscape baseline study considers the constituent elements, features and other factors that contribute to existing landscape character within the study area including:

- The physical influences on the landscape resource – including topography, geology, soils, microclimate, water bodies and water courses;
- The influence of human activity – including land use, open space, transport routes, public rights of way, national trails, historic green lanes, land management, the character of settlement and buildings and the pattern and type of fields and enclosure;
- The aesthetic and perceptual aspects of the landscape – including scale, complexity, openness, tranquillity, and wildness; and
- Heritage features – including conservation areas, listed buildings, registered parks and gardens and other elements contributing to historic landscape character.

Key sources of information include OS mapping, aerial photography and published documents. In accordance with the guidance in GLVIA 3, existing landscape character assessments and historic characterisation documents, where appropriate and up to date, have been used to inform the LVA.

The findings of the desk study were reviewed in conjunction with the site survey to identify local landscape character areas (LCA). These are broadly homogeneous units of distinct features and elements.

The value of each LCA was established by considering statutory and non-statutory landscape designations indicating national or local value (such as Areas of Outstanding Natural Beauty) and a range of factors including:

- landscape condition, quality and intactness;
- scenic quality;
- rarity (rare elements, features or landscape character type);
- representativeness (whether the landscape contains a character, feature or element that is an especially important example of the type);
- presence of features of conservation interest (ecological, earth science, historical, cultural);
- recreational value;
- perceptual aspects of the landscape such as wildness and/or tranquillity; and
- cultural or historical associations with, for example, writers, artists, historical events.

Visual Baseline

The baseline study identifies the people in the area and important, designated or protected views potentially affected by the development. Viewpoints were selected to represent the various visual receptor types in the study area including residential, recreational, hotel, healthcare, educational, transport, active sports and employment receptors. Viewpoints were also selected to represent specific views valued for their scenic quality or cultural associations or to demonstrate a specific issue.

Mapping Visibility

A map of the land which may potentially be seen from the development will be created. We will establish the Zone of Theoretical Visibility (ZTV) using digital terrain mapping and a basic 3D model of the development. For linear developments the ZTV will be constructed using a sequence of points along

the development. For other developments a ZTV will be built using multi-point analysis to ensure the height and scale of the proposed development are properly analysed. This will be verified by field survey where landscape elements which affect visibility can be identified and recorded.

The selection of viewpoints was based on the extent of the ZTV, the findings of the site survey, a review of planning policy documents. Photographs were taken during winter to represent the character of the landscape and existing views.

Assessment of Effects

The assessment identifies the residual effects likely to arise from the development, taking into account mitigation measures and changes over time. The importance of effects were assessed by considering the sensitivity of the receptor and the predicted magnitude of change in relation to the baseline conditions.

Landscape Character

The sensitivity of the landscape was evaluated by considering the existing value of the landscape and its susceptibility to the type of change arising from the proposed development. There can be a complex relationship between the value attached to the landscape and its susceptibility to change, especially if the change is within or close to a designated landscape. A designated landscape such as an AONB is likely to have a high susceptibility to change but, depending on the type of development, it might accommodate the change without detrimental effect on its key characteristics. In this case its susceptibility to change could be medium or even low. The evaluation of sensitivity was based on the criteria set out in the table 4 below.

Appendix A: Detailed Methodology

Table 4: Landscape Character Sensitivity

Sensitivity	Landscape Value and Susceptibility to Change
High	Designated landscape (such as AONB). Landscape of high scenic quality with a distinctive combination of features, elements and characteristics, outstanding views and a strong sense of place. A scarce or fragile landscape with cultural, historic or ecological elements which make a major contribution to landscape character. No or very few landscape detractors. Has components which are difficult to replace (such as mature trees). A tranquil landscape in good condition, largely intact, with an unspoilt character. A high susceptibility to change due to the type of development proposed. No or very limited potential for substitution or replacement.
Medium	Landscape locally designated (such as conservation area, regional park) or locally valued (for its recreational facilities and footpath networks for instance). Some scenic quality and a moderate sense of place. A landscape with some distinctive features, elements and characteristics. Some cultural, historic or ecological elements which contribute to landscape character. Some high use areas, but overall medium tranquillity. Few landscape detractors. A landscape in moderate condition, with some unspoilt characteristics and a moderate susceptibility to change due to the type of development proposed. Some potential for substitution or replacement.
Low	Undesignated landscape, not valued for its scenic quality, with a disparate combination of features, elements and characteristics and a weak sense of place. Mainly common features and few or no cultural, historic or ecological elements that contribute to landscape character. Many landscape detractors. A landscape of low tranquillity, in poor condition and a low susceptibility to change due to the type of development proposed. Good potential for substitution or replacement.

Based on GLVIA 3 (LI and IEMA, 2013)

The magnitude of change to landscape character was determined by considering:

- the nature of an impact - whether the introduction of a proposed development will be of benefit or detriment to the existing landscape character;
- the scale of the change - extent of the loss of landscape elements, the degree to which aesthetic features or perceptual aspects of the landscape are altered (by the removal of hedgerows or introduction of new structures for example) and whether a key characteristic of the landscape is altered;
- the geographical extent of the area affected; and
- the duration of the change and its reversibility.

Table 5: Magnitude of change to landscape character

Magnitude	Criteria
High	Total loss or substantial alteration to key elements/features/characteristics of the LCA and/or its setting. Addition of new elements which conflict with key characteristics of the existing landscape. Changes that alter a substantial proportion the more LCA. Introduction of long-term and/or irreversible changes to an LCA or its setting.
Medium	Partial loss or alteration to key elements/features/characteristics of the LCA and/or its setting. Addition of new elements or features that are prominent in the landscape but which do not necessarily conflict with key characteristics of the existing landscape. Changes that alter part of an LCA or its immediate setting. Introduction of medium to long term and/or irreversible changes to part of an LCA or its setting.
Low	Slight loss or alteration to one or more key characteristics of the LCA and/or its setting. Addition of new elements or features that are largely characteristic of the existing LCA and/or its setting. Introduction of short to medium term changes to the LCA and/or irreversible changes to a small proportion of the LCA.
Negligible	No change to, or barely perceptible loss or alteration to key characteristics of the LCA and its setting. Addition of new elements or features that are characteristic of the existing LCA and/or its setting. Changes experienced close to the proposed development site at a very localised level.

Based on GLVIA 3 (LI and IEMA, 2013)

Appendix A: Detailed Methodology

Visual Amenity

The sensitivity of visual receptors was evaluated by considering the value attached to specific views and the susceptibility of visual receptor to changes to views and visual amenity. The value attached to a view could derive from a planning designation or an association with a heritage asset. The susceptibility to change depends on the occupation or activity of the receptor and the extent to which their attention is focused on the view and visual amenity.

The evaluation of sensitivity was based on the criteria set out in the table 6 below.

Table 6: Visual receptor sensitivity

Sensitivity	Receptor
High	<p>Occupiers of residential properties orientated towards the development.</p> <p>Walkers and visitors to heritage assets whose attention is focused on a landscape of recognised high quality.</p> <p>Designated or protected views.</p> <p>Views from a recognised high quality landscape such as a National Park or an AONB.</p>
Medium	<p>People travelling along scenic roads through the landscape.</p> <p>Walkers and visitors to heritage assets whose attention is focused on a landscape of moderate quality.</p> <p>People walking along residential streets.</p> <p>Occupiers of residential properties with oblique views of the development.</p>
Low	<p>People at work and in educational institutions.</p> <p>People engaged in formal sports activities.</p> <p>People walking through urban areas (for example commuters).</p> <p>People on main roads or railways whose attention is not focused on the landscape (such as commuters).</p>

Based on GLVIA 3 (LI and IEMA, 2013)

Appendix A: Detailed Methodology

The magnitude of change to views was determined by considering:

- the nature of an impact by judging whether the introduction of a proposed development would be of benefit or detriment to the existing view. The impact of a proposed development can be adverse or beneficial.
- the context of the existing view (e.g. whether it is across a natural landscape or an industrial site);
- the extent to which the view has been altered due to the loss/ addition of features and the proportion of the view the development will occupy;
- the scale and appearance of the proposed development and the degree of contrast/ integration with the existing view;
- the distance of the visual receptor from the development and the angle/ position of view; and
- the duration and reversibility of the effect.
- the size and scale of the effect; and
- the geographical extent of the changes to the view.

The evaluation of the magnitude of change was based on the criteria set out in table 7 adjacent.

Table 7: Magnitude of change to views

Magnitude	Criteria
High	Total loss or substantial alteration to key characteristics of the view Addition of new features or components that are continuously highly visible across the majority of the view and incongruous with the existing view. Substantial changes in close proximity to the visual receptor and within the direct frame of view. Introduction of long term or permanent change uncharacteristic of the view.
Medium	Noticeable change or alteration to one or more key characteristics of the view Addition of new features or components that may be continuously highly visible across much of the view, but are largely characteristic of the existing view. Changes a relatively short distance from the receptor, but viewed as one of a series of components in the middle ground of the view Substantial change partially filtered by intervening vegetation and/or built form, or viewed obliquely Introduction of medium to long term change uncharacteristic of the view and/or permanent changes largely characteristic of the existing view or affecting a small proportion of the view
Low	Slight loss or alteration to one or more characteristics of the view Addition of new features or landscape components that may be continuously or intermittently visible in part of the view, but are largely characteristic of the existing view from a receptor Changes within the background of the view, viewed as one of a series of components in the wider panoramic view from a receptor Change largely filtered by intervening vegetation and/or built form, or viewed obliquely Introduction of short to medium term change uncharacteristic of the view and/or long term/permanent changes in a small proportion of the view.
Negligible	No change to, or barely perceptible loss or alteration in the view. Addition of new features or landscape components that are largely inconspicuous and characteristic of the existing view. Changes within the background of the view, viewed as an inconspicuous element within the wider panorama. Change almost entirely obscured by intervening vegetation and/or built form. Short term change affecting a small proportion of the view.

Based on GLVIA 3 (LI and IEMA, 2013)

Appendix A: Detailed Methodology

Importance of Effects

Effects may be adverse or beneficial.

Professional judgement was used to determine the overall level of importance of effects on landscape and visual receptors in weighing the sensitivity of the receptors against the magnitude of change. The evaluation of the importance of effects was based on the criteria set out in the table 8 adjacent.

Table 8: Importance of effects on landscape character

Importance of Effects	Criteria
Major beneficial	A clear improvement or enhancement of existing character. Restoration of characteristic features previously wholly or largely lost through inappropriate management or previous development.
Moderate beneficial	A noticeable improvement or enhancement of existing character. Restoration of valued characteristic features previously largely lost through inappropriate management or previous development.
Minor beneficial	A small improvement or enhancement of existing character. Restoration of valued characteristic features previously partly lost through inappropriate management or previous development.
Negligible	Maintenance of the existing character, sense of place and/or local distinctiveness of the landscape.
Minor adverse	A small deterioration in the existing character due to the loss of characteristic features and or the introduction of uncharacteristic features which detract from the sense of place or local distinctiveness. Effects may relate to a small proportion of the character area.
Moderate adverse	A noticeable deterioration in the existing character due to the loss of characteristic features or the introduction of uncharacteristic features or elements which detract from the sense of place or local distinctiveness. Effects may relate to a medium proportion of the character area.
Major adverse	A clear deterioration in the existing character due to the loss of key characteristic features or the introduction of uncharacteristic features or elements which detract from the sense of place or local distinctiveness. Effects may relate to all or a large proportion of the character area.

Based on GLVIA 3 (LI and IEMA, 2013)

Appendix A: Detailed Methodology

Table 9 : Importance of effects on visual receptors

Importance of Effects	Criteria
Major beneficial	A substantial improvement, affecting a large extent of the view.
Moderate beneficial	A noticeable improvement, affecting part of the view.
Minor beneficial	A small improvement, affecting a small extent of the view.
Negligible	No discernible deterioration or improvement in the existing view.
Minor adverse	A small deterioration, affecting a small extent of the view.
Moderate adverse	A noticeable deterioration, affecting part of the view
Major adverse	A substantial deterioration, affecting a large extent of the view.

Based on GLVIA 3 (LI and IEMA, 2013)

To achieve consistency in the evaluation of the importance of effects, the assessment was also guided by the matrix shown in the table 10 below.

Table 10: Importance of effects matrix

Magnitude	Sensitivity			
	High	Medium	Low	Negligible
High	Major	Major/ moderate	Moderate/ Minor	Major
Medium	Major/ moderate	Moderate	Moderate/ minor	Major/ moderate
Low	Moderate/ minor	Minor	Minor/ negligible	Moderate/ minor
Negligible	Minor/ negligible	Minor/ negligible	Negligible	Minor/ negligible

Based on GLVIA 3 (LI and IEMA, 2013)

Do not use split scores such as Moderate/minor – choose Moderate or Minor.

Cumulative Effects

Cumulative effects generally occur where there may be simultaneous or sequential visibility of two or more developments of the same type and scale, or where the consideration of other schemes would increase an effect identified. Where other similar schemes are in the planning system and made known to the applicant, or are under construction, these are considered in conjunction with the proposed scheme.

Mitigation

Mitigation refers to measures which are proposed to prevent, reduce and offset landscape effects. These measures can include considerations, and which are integrated into the project design through an iterative design process.

These measures will be recorded and defined as:

- Primary measures – developed through an iterative design process and which are integrated into the project design;
- Standard construction and operational management practices for avoiding and reducing environmental effects; and
- Secondary measures – designed to address any residual adverse effects remaining after primary measures and standard construction practices have been incorporated into the scheme.

Appendix B: Viewpoints 1-6

Appendix B: Viewpoints
Viewpoint 1



Plan - Position of viewpoint

Cafe building at
Cosmeston Lakes
Country Park

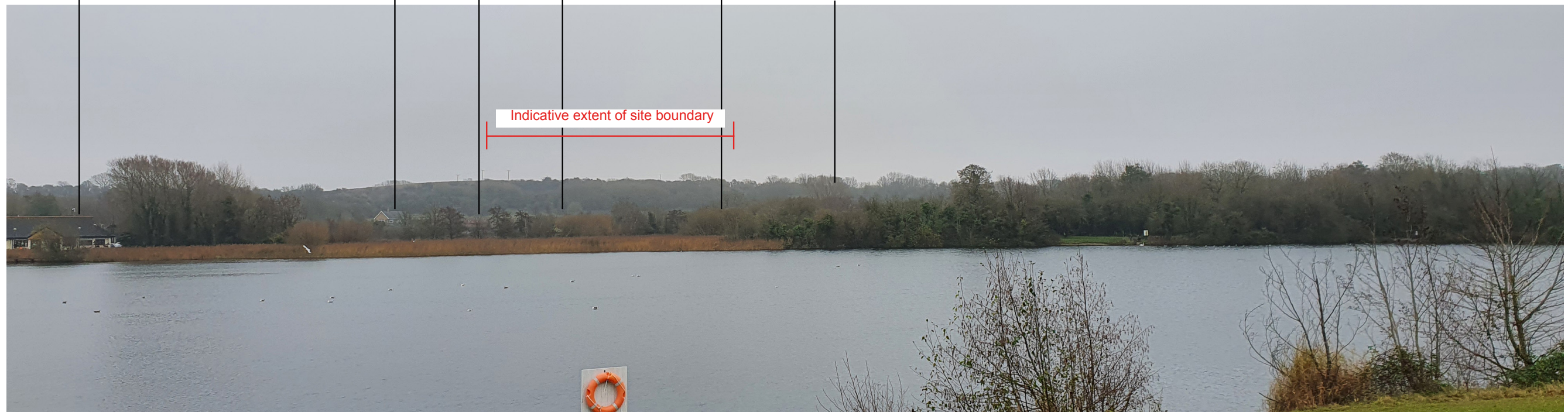
Dwelling at Lower
Cosmeston Farm

Barn at Lower
Cosmeston Farm

Ridgeline which runs
along the coast to the
south west of site

VIEWS OF SITE:
Open view of grass at south westerly extent of site where land raises to around 20m AOD at the bottom of the embankment of the disused railway embankment

VIEWS OF SITE: View of majority of site is truncated by intervening vegetation within the Country Park



Viewpoint 1 - Cosmeston Lakes Country Park, north of the lakes and north west of site

Direction of VP: South east
Approx. Distance to Site: c.500m
Visual Receptor: Pedestrians
Approximate elevation: c.15m AOD

Sensitivity: Medium
Magnitude: Negligible
Effect: Minor

Description of view:

Existing - View of majority of site is truncated by intervening vegetation within the Country Park. There is an open view of grass at south westerly extent of site where land raises to around 20m AOD.

Proposed - The upper extents of the proposed building may be viewable from this position, above the intervening tree line. This would change the existing view of the grass at the south westerly extent of site to roofscape and ridgeline in a grey colour with grassland either side of it.

Sensitivity of receptors: Medium. Pedestrians are on a leisurely pursuit within the Country Park and are therefore deemed as having medium sensitivity.

Magnitude of change: Negligible. The proposed development will form a barely noticeable component of the view, with the addition of a ridgeline which will run in line with the barn buildings of the adjacent Lower Cosmeston Farm and livery, the view would be slightly altered for only a small part of this wide view and as such would be similar to the baseline situation.

Level of visual effect: Minor – a small alteration, effecting a small extent of the view.

Appendix B: Viewpoints
Viewpoint 2



Plan - Position of viewpoint



Viewpoint 2 - Lavernock Road, immediately north west of site

Direction of VP: South east
 Approx. Distance to Site: c.10m
 Visual Receptor: Road users/pedestrians
 Approximate elevation: 12m AOD

Sensitivity: Low
 Magnitude: High
 Effect: Moderate

Description of view:

Existing - Open view of the hedgerow which bounds the site to the north west. View of rest of site is truncated by hedgerow boundary.

Proposed - The newly formed entrance to site will create a wide gap in the continuous line of hedgerow, and will open up views into the site. The proposed building is likely to be visible within this new entrance as well as fences, gates, access roads, drop off area, some parking and hard landscape around the proposed school building. The upper extents of the proposed building may be viewable from this position above the existing hedgerow which is to be retained. The proposed vegetation behind this hedge, will add an additional layer of vegetation, which upon planting should be just about visible beyond the existing hedgerow depending on maintenance and will over time filter potential views towards the proposed building.

Sensitivity of receptors: Overall Low. Road users - Low. Lavernock Road, the B4267 forms the main trunk road through this area, travellers may generally be commuters and their focus is not likely to be on the landscape. Pedestrians - Low. Walkers using the footpath on the opposite side of the road are considered to be of low sensitivity, as the environment adjacent to the road is noisy and fast paced and people are therefore not likely to be on a leisurely pursuit.

Magnitude of change: High. The proposed development including new entrance, fences, gates, access roads, drop off area, some parking, hard landscape and school building will introduce new elements across a large part of this view. The proposed vegetation behind the existing hedge, will add an additional layer of vegetation, which upon planting should be just about visible above the existing hedgerow (depending on maintenance) and will over time filter potential views towards the proposed building.

Level of visual effect: Moderate – a noticeable alteration, affecting a large part of this view. It is noted however that this view is specific to this location and that 30 or so metres either way the view into the site disappears from view due to the existing hedgerow. The view is transient, providing a snippet glance within peripheral vision.

Appendix B: Viewpoints
Viewpoint 3



Plan - Position of viewpoint

VIEWS OF SITE:
Northern part of site truncated by railway bridge.

Ridgelines of buildings at Lower Cosmeston Farm are visible from this position although not discernible within this photograph.

VIEWS OF SITE:
Snippet open view of boundary vegetation at the southern corner of the site.

VIEWS OF SITE:
Filtered view of south eastern extent of site due to intervening vegetation either side of Fort Road.

Fort Road

Railway bridge (disused)



Viewpoint 3 - Fort Road, at Ty-r-orsaf and 2 Fort Road cottages, south of site

Direction of VP: North
Approx. Distance to Site: c.200m
Visual Receptor: Road users
Approximate elevation: c.30m AOD

Sensitivity: Medium
Magnitude: Negligible
Effect: Negligible

Description of view:

Existing - Northern part of site truncated by railway bridge (disused). Filtered view of south eastern extent of site due to intervening vegetation either side of Fort Road. Snippet open view of boundary vegetation at the southern corner of the site.

Proposed - The upper extents of the proposed building may be viewable from this position above the intervening boundary vegetation. Ground level proposals and fencing are not likely to be seen due to intervening vegetation.

Sensitivity of receptors: Medium. Fort Road is a dead-end route leading to the Marconi Holiday Village, people using this route are likely to be more focussed on the scenic qualities of the landscape, due to many being holiday makers. While this photograph is taken in front of the residential developments of Ty-r-orsaf and 2 Fort Road Cottages it is not listed here as a residential view as the cottages are set back and windows are facing away from site.

Magnitude of change: Negligible. The view of the proposed school building will replace the existing view of the buildings at Lower Cosmeston Farm, at a slightly closer proximity. The proposed building would constitute a very small area in the background of this view and as such the view would be similar to the baseline situation.

Level of visual effect: Negligible - No discernible deterioration.

Appendix B: Viewpoints
Viewpoint 4



Plan - Position of viewpoint

VIEWS OF SITE:
Open view of the hedgerow which bounds the site to the west.

View of rest of site is truncated by hedgerow boundary.

Fort Road



Viewpoint 4 - Fort Road, west of site

Direction of VP: East
Approx. Distance to Site: c.3m
Visual Receptor: Road users
Approximate elevation: c.15m AOD

Sensitivity: Medium
Magnitude: Low
Effect: Minor

Description of view:

Existing - Open view of the hedgerow which bounds the site to the west. View of rest of site is truncated by hedgerow boundary.

Proposed - The upper extents of the proposed building may be viewable from this position above the boundary hedgerow tree line.

Sensitivity of receptors: Medium. Fort Road is a dead-end route leading to the Marconi Holiday Village, people using this route are likely to be more focussed on the scenic qualities of the landscape, due to many being holiday makers.

Magnitude of change: Low. While the ridgeline of the proposed building may be visible from this viewpoint, the boundary vegetation will remain the same. As road users will be travelling northward or southward along Fort Road, the Ridgeline will be in peripheral view and may not be seen at all due to the height of the hedgerow which sits atop a 1m bank. The proposed vegetation behind this hedge, will add an additional layer of vegetation, which upon planting should be just about visible above the existing hedgerow (depending on cut height) and will over time filter potential views towards the proposed building.

Level of visual effect: Minor – a small alteration, affecting peripheral view, and only likely to be experienced from a high chassis vehicle.

Appendix B: Viewpoints
Viewpoint 5



Plan - Position of viewpoint

VIEWES OF SITE:
Open view of the hedgerow
which bounds the site to the
north west.

VIEWES OF SITE:
View of rest of site is truncated by
hedgerow long Lavernock Road to
the south.



Viewpoint 5 - Lavernock Road and Country Park Bridleway, south west of site

Direction of VP: North east
Approx. Distance to Site: c.300m
Visual Receptor: Road users/Ped/cyclists
Approximate elevation: c.20m AOD

Sensitivity: Medium
Magnitude: Low
Effect: Minor

Description of view:

Existing - Open view of the hedgerow which bounds the site to the north west. View of rest of site is truncated by hedgerow along Lavernock Road to the south.

Proposed - The newly formed entrance to site will create a small gap in the continuous line of hedgerow visible from this viewpoint. The upper extents of the proposed building may be viewable from this position above the hedgerow. The proposed vegetation behind this hedge, will add an additional layer of vegetation, which upon planting should be just about visible beyond the existing hedgerow depending on cut height and will over will filter potential views towards the proposed building.

Sensitivity of receptors: Overall Medium. Road users: Low. Lavernock Road, the B4267 forms the main trunk road through this area, travellers may generally be commuters and their focus is not likely to be on the landscape are therefore deemed as having low sensitivity. Pedestrians: Medium. Pedestrians / cyclists entering the Country Park may have their attention focussed on the landscape and are therefore deemed as medium sensitivity.

Magnitude of change: Low. The proposed new opening into the site will form only a small component of this view which is unlikely to be discernible. The ridgeline of the proposed building will introduce additional built form in the midground of this view but will be filtered by the existing hedgerow vegetation in the foreground of this view.

Level of visual effect: Minor – a small alteration, affecting a small extent of the view.

Appendix B: Viewpoints
Viewpoint 6



Plan - Position of viewpoint

VIEWS OF SITE:
View of site truncated by
buildings within medieval village
and roadside vegetation on the
northern side of Lavernock Road

VIEWS OF SITE:
Snippet open view of boundary
vegetation at the north western
corner of site, adjacent to the
junction with Fort Road.

Museum at reconstructed
medieval village

Buildings at
reconstructed medieval
village



Indicative extent of site boundary

Viewpoint 6 - Public Right of Way within Cosmeston Lakes Country Park, north west of site.

Direction of VP: South east
Approx. Distance to Site: c.30m
Visual Receptor: Pedestrians
Approximate elevation: c.12m AOD

Sensitivity: High
Magnitude: Medium
Effect: Moderate

Description of view:

Existing - View of site truncated by buildings within medieval village and roadside vegetation on the northern side of Lavernock Road. Snippet open view of boundary vegetation at the north western corner of site, adjacent to the junction with Fort Road.

Proposed - The upper extents of the proposed building may be viewable from this position above the buildings within the medieval village and it's backdrop of roadside vegetation.

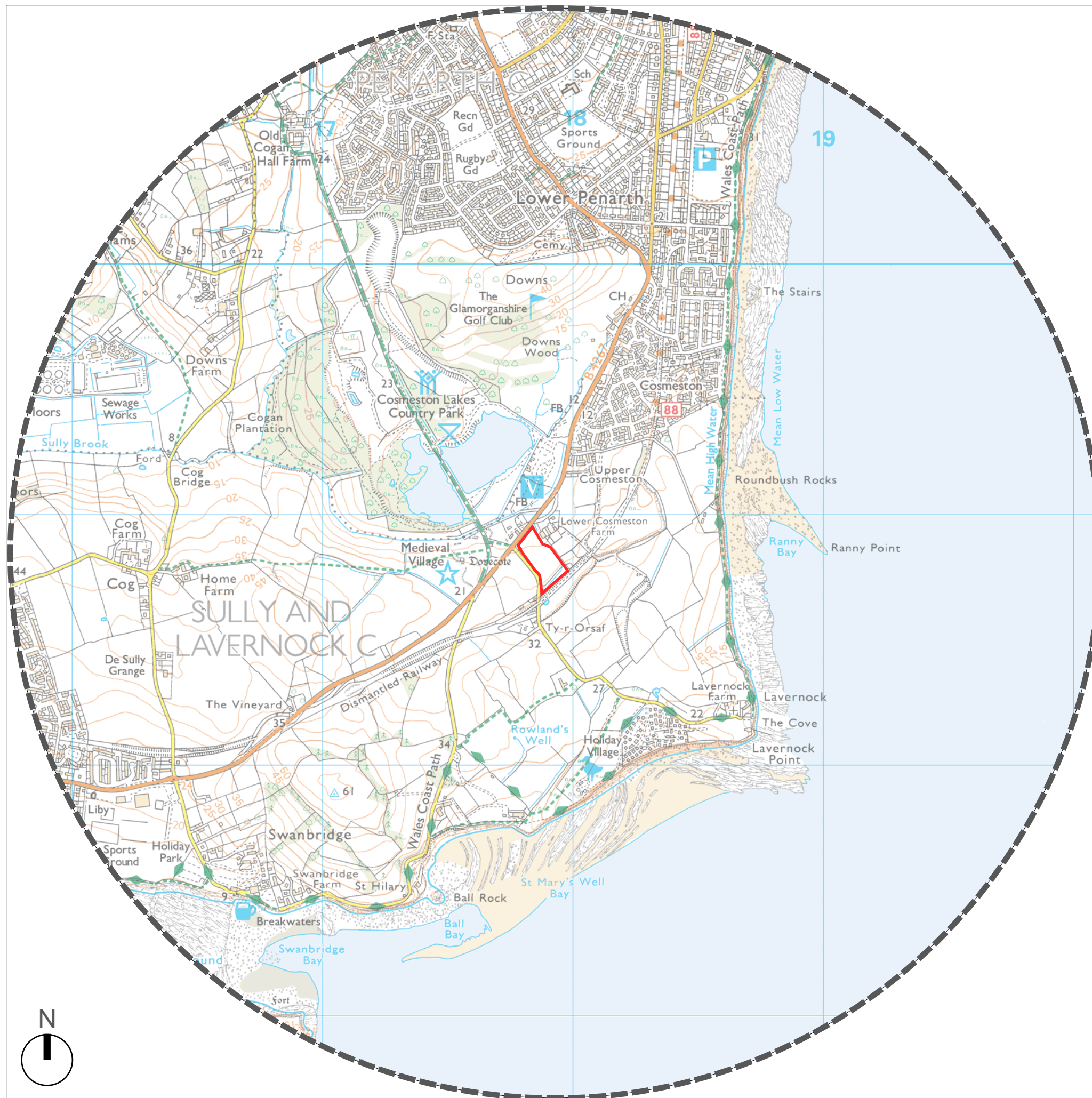
Sensitivity of receptors: High. Pedestrians are on a leisurely pursuit within the Country Park and are likely using this particular footpath to enjoy views of the reconstructed medieval village and are therefore deemed as having high sensitivity.

Magnitude of change: Medium. The ridgeline of the proposed building will introduce an additional background to this view, which may be present for a wide extent of the view. The proposed vegetation set adjacent to the field boundaries of site will add an additional layer of vegetation, which upon planting would not be visible due to the intervening vegetation, however over time this tree line will filter potential views towards the proposed building.

Level of visual effect: Moderate – a noticeable alteration to the view, adding a new built form backdrop, which will extend across a large extent of the view.

Appendix C: Supporting figures

Figures 1-12



KEY

- Site boundary
- 2km study area

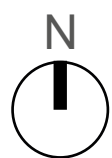
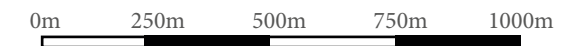


Figure 1 - Site context



KEY

— Site boundary

- - - 2km study area

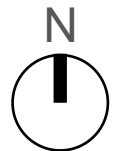
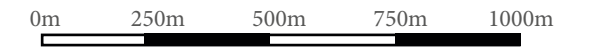
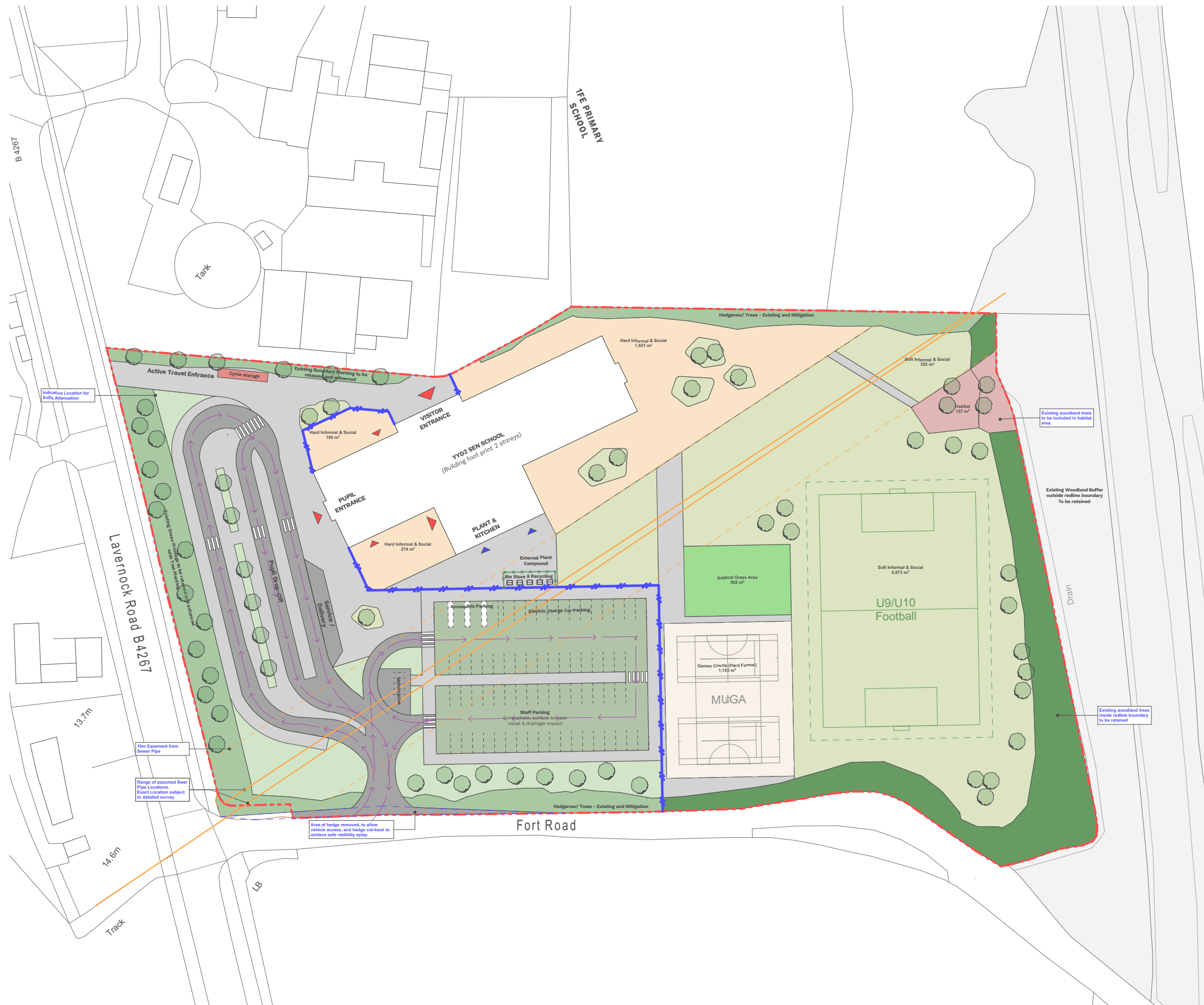


Figure 2 - Aerial view



KEY

- Red line Boundary
- Secure Line with associated access gates
- Building Footprint
- Hard Games Courts (MUGA)
- Hard Informal & Social
- Soft Informal & Social
- Soft Outdoor PE
- Habitat
- Existing boundary planting
Existing hedgerow, vegetation to be retained and enhanced with native species where possible
- Existing Woodland Buffer
To be retained
- Non-net (Pedestrian Paths)
- Non-net (Car Park and Access Road)
- Non-net (Soft Landscape Outside Secure Line)
- Proposed Native species Trees
Indicative Location only, subject to Arboricultural Report

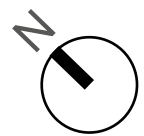
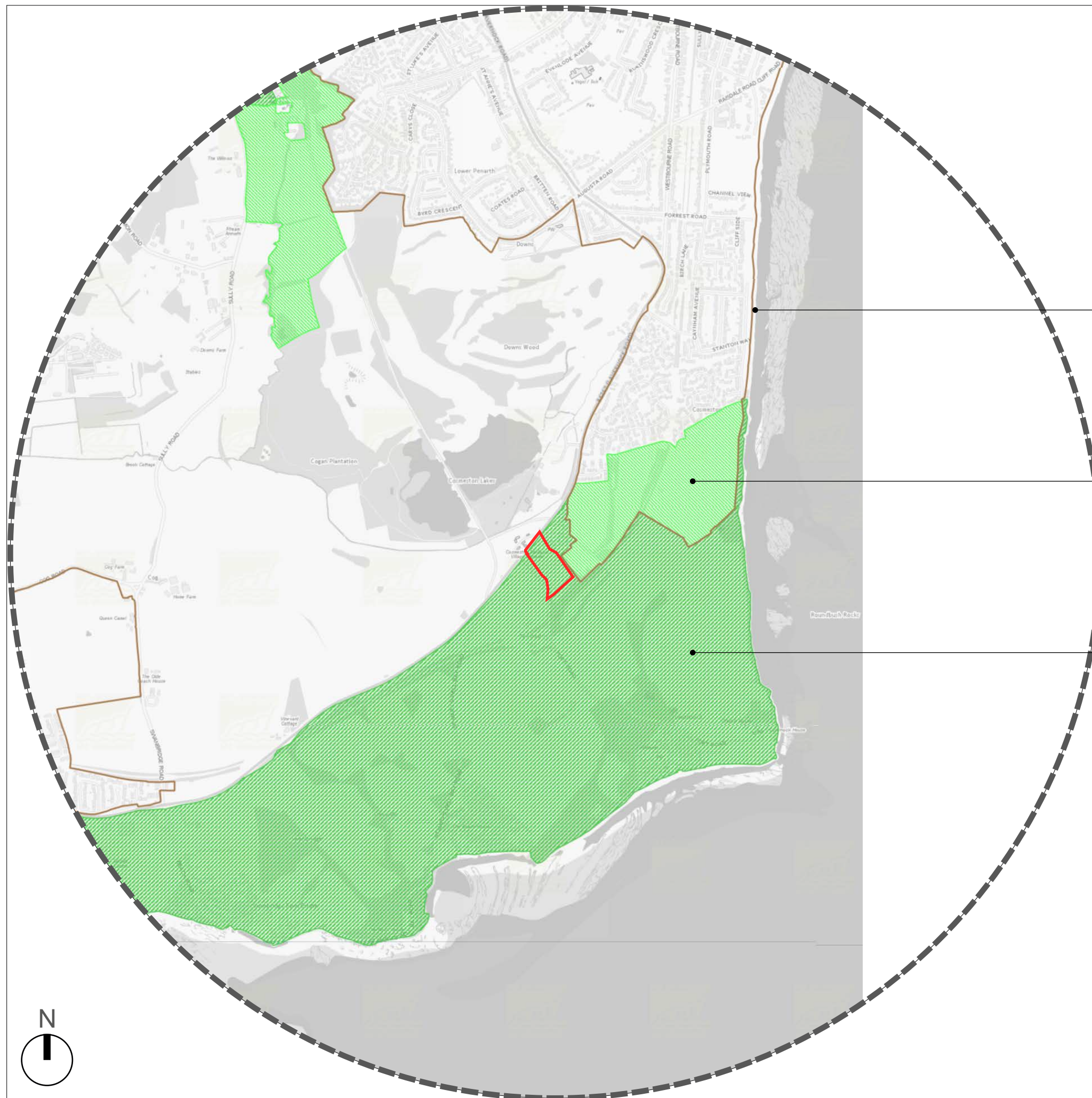


Figure 3 - Proposed site plan



KEY

Site boundary

2km study area

Key below illustrates aspects of Vale of Glamorgan Local Development Plan 2011-2026 discussed within the LVA

Public open space

Green wedges

Settlements

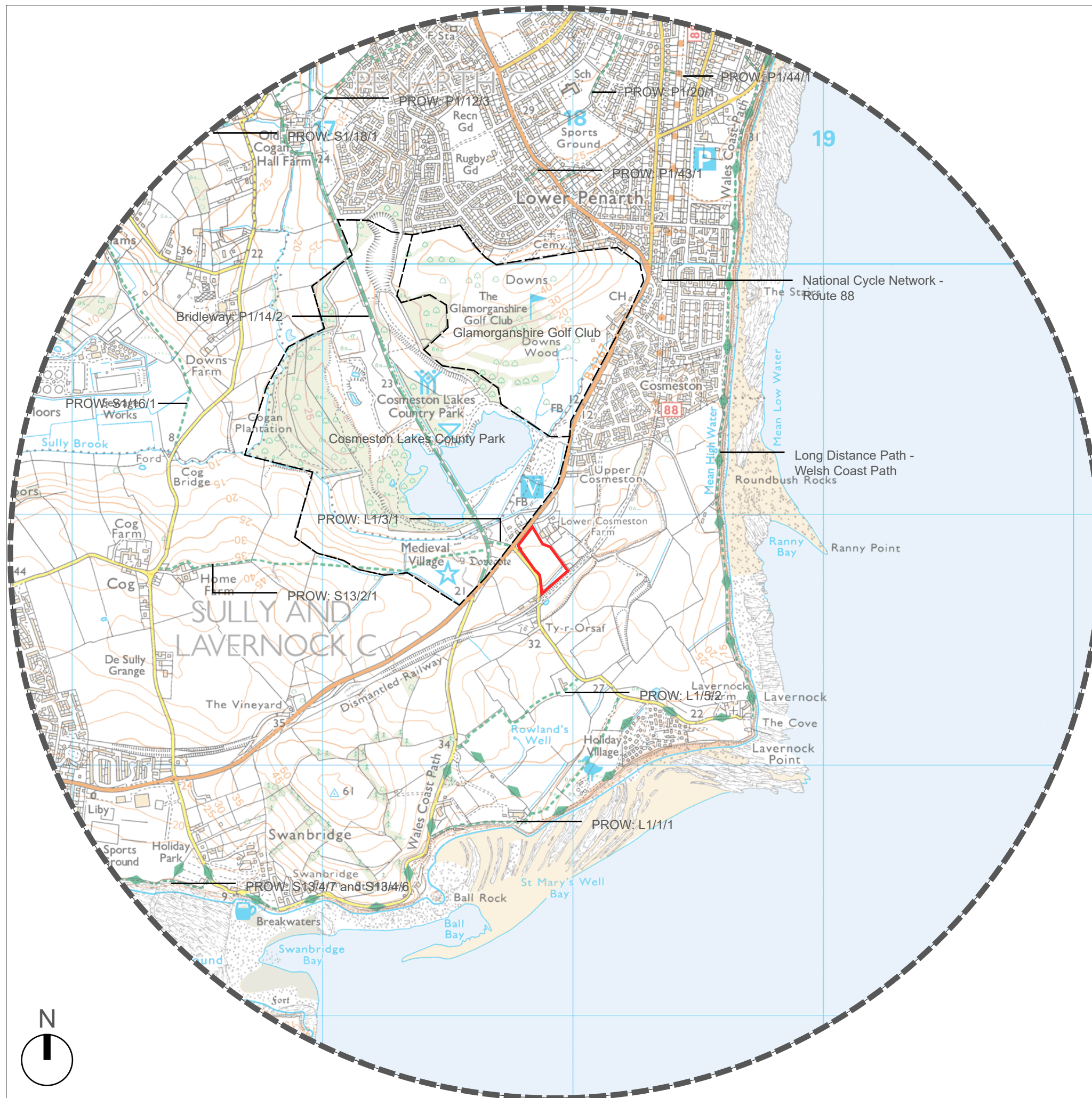
Settlements - Policy MD5
Penarth Settlement

Public open space allocation - Policy MG 2 (24), MG 28 (10) Land at and to the east of Upper Cosmeston Farm

Green wedge, Policy MG18 - South Penarth to Sully

0m 250m 500m 750m 1000m

Figure 4 - Landscape planning context

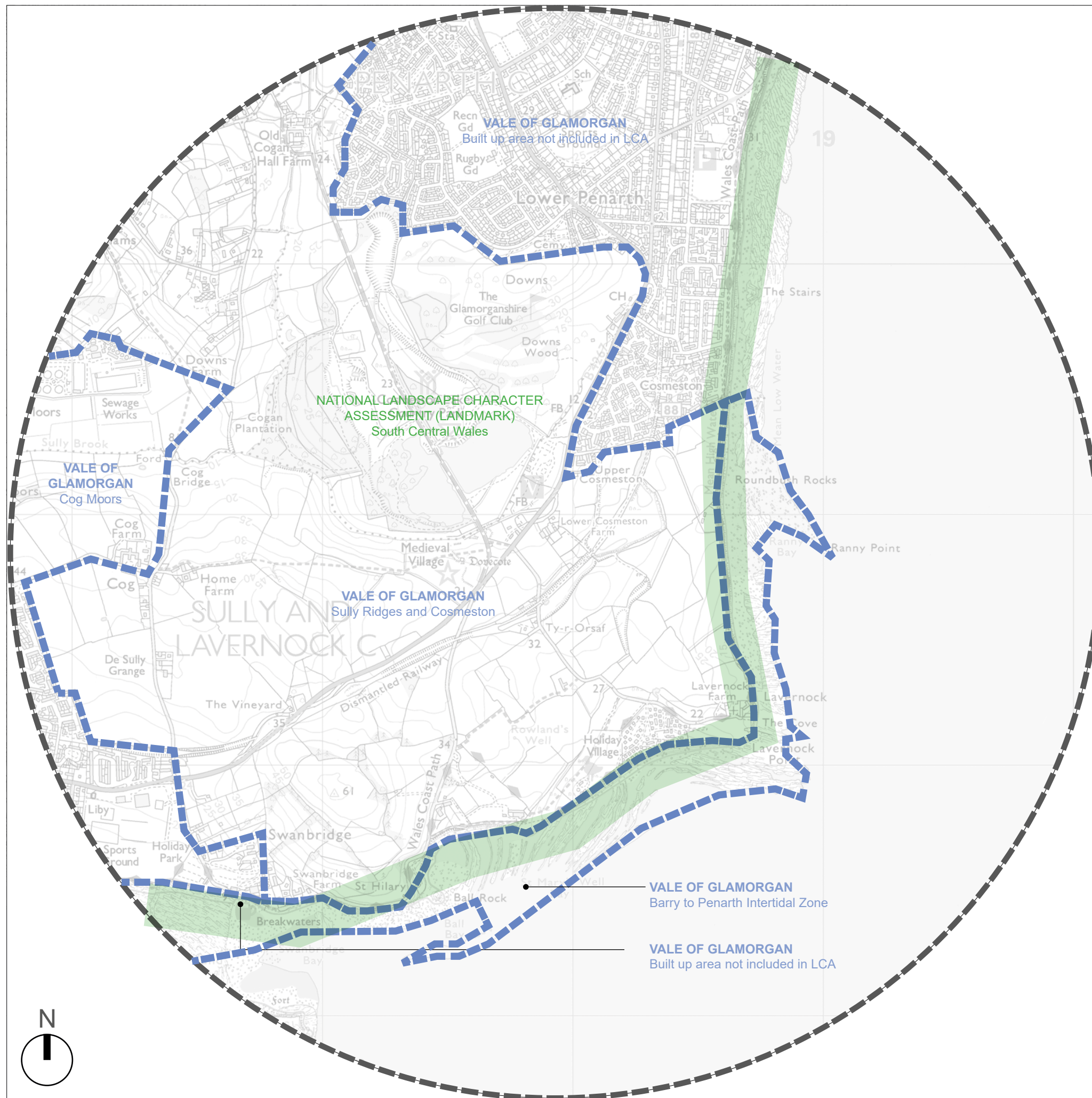


KEY

- Site boundary
- 2km study area
- Public Right of Way - Footpath
- Public Right of Way - Bridleway
- Public Right of Way - Long distance path
- National Cycle Network
- Other publicly viewable vantage points



Figure 5 - Public vantage points



KEY

- Site boundary
- 2km study area
- NATIONAL LEVEL - Landmark**
- National Character Area
- COUNTY LEVEL - Vale of Glamorgan County Borough Council - Designation of Landscape Character Areas**
- Landscape Character Area

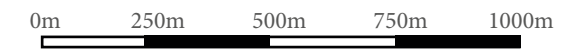


Figure 6 - Landscape character



Cosmeston Lakes providing open and flat point to the setting with landscape towards the north



View looking north east towards the setting along St Mary's Well Bay Road illustrating enclosing nature of disused railway embankment



Mixed nature of barns and slurry tank at Lower Cosmeston Farm



Museum and buildings at Cosmeston Medieval Village



Visitor Centre buildings and car park at Cosmeston Lakes



Rolling hills in open parts of Cosmeston Lakes Country Park



Tree lined Bridleway running through Cosmeston Lakes Country Park



Fields of pasture (some currently unused) south east of B4267 Lavernock Road



B4267 Lavernock Road, wide and fast moving, enclosed by hedgerow



Fort Road, narrow and enclosed by hedgerow

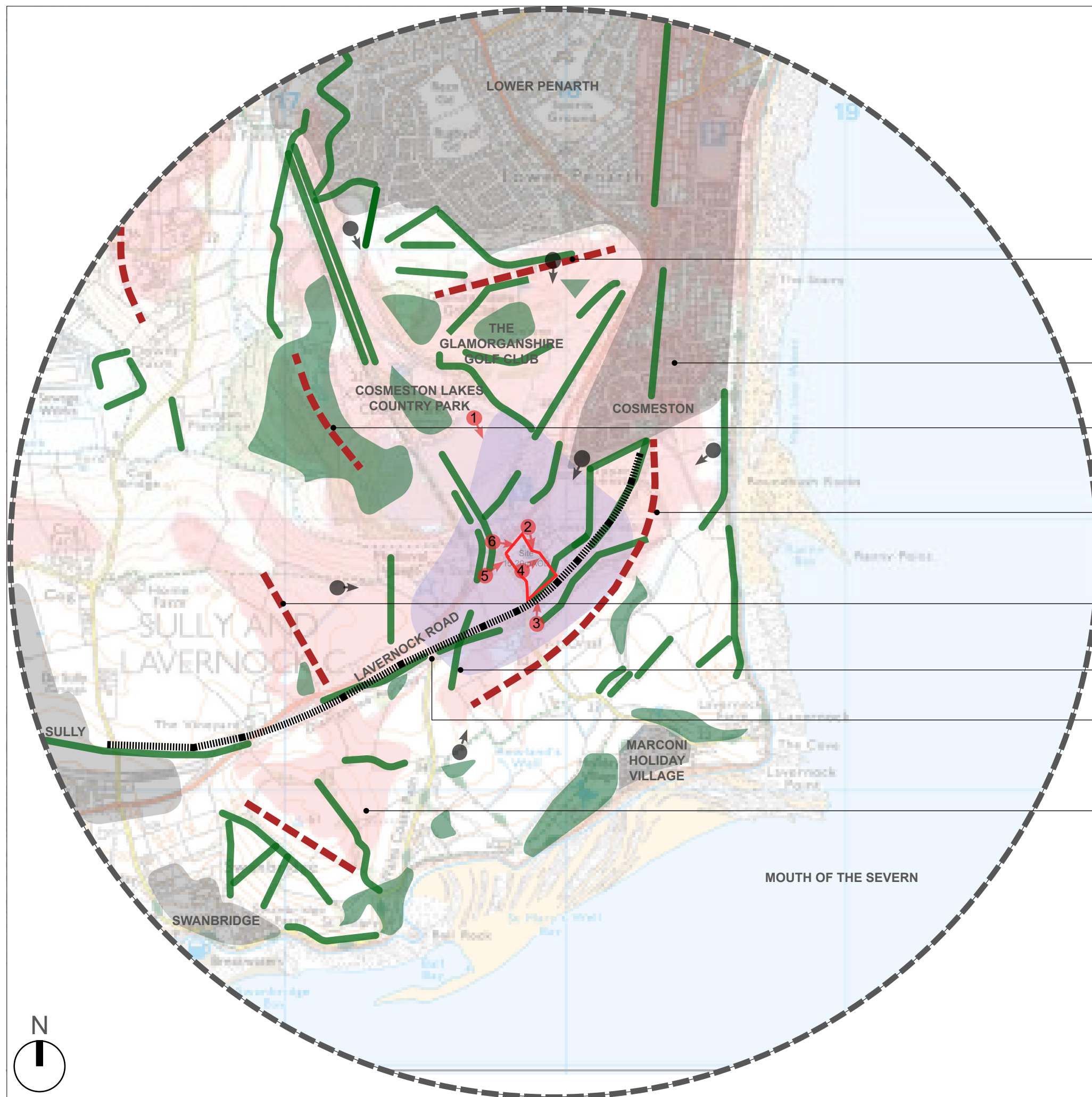


Wooded embankment at disused railway



Views towards ridgeline along coast where vegetation opens up across the lake

Figure 7 - Setting of the site photographs



KEY

- Site boundary
- 2km study area
- Ridgelines that obscure views
- Tree belts (interpolated from aerial)
- Disused railway embankment
- Woodland blocks (interpolated from aerial)
- Settlements
- Zone of Theoretical Visibility
- Visual Envelope of proposed development based on field study and professional judgement
- 1 Viewpoint location
- View of site scoped out

The ridgeline at Glamorganshire Golf Club, restricts views from the north.

Settlement of Cosmeston prevent views from the north east.

The ridgeline at Cosmeston Country Park restricts views from the north west.

The ridgeline along the coastline restricts views from the east and south, including the Mouth of the Severn.

The ridgeline west of site restricts views from the west.

Frequent tree belts filter views towards site.

Disused railway embankment provides enclosure to the south and east of site.

The ridgeline south west of site restricts views from the south west.

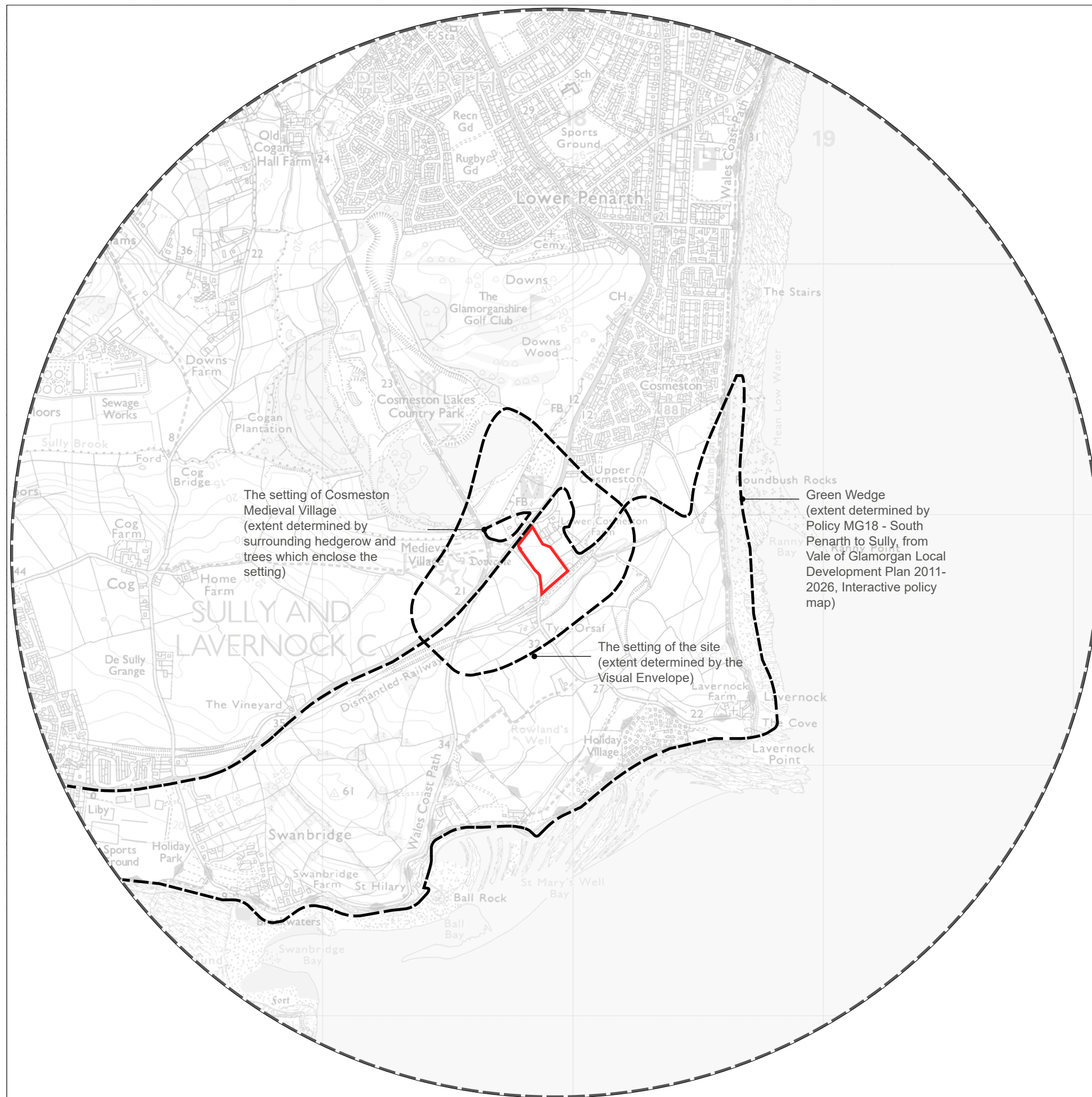
The Visual Envelope is calculated from the desk top using topography, woodland blocks and settlement areas and then verified on site.

The site is situated at between 15 and 20m AOD.

Woodland blocks and settlement areas are likely to restrict views due to the height of trees and buildings and therefore areas beyond these are not included within the Visual Envelope unless raised topography allows a view over the woodland or settlement.



Figure 8 - Visual envelope & viewpoint locations



KEY

- Site boundary
- 2km study area
- - - Landscape receptors selected for this study

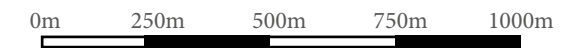


Figure 9 - Landscape receptors



A Representative view of users of Glamorganshire Golf Club (leisure users), photograph taken from Penarth Cemetery. View truncated by topography.



B Representative view of residents of Upper Cosmeston Farm road. View taken from Upper Cosmeston Farm road. Snippet view between dwellings.



C View from Welsh Coast Path. View truncated by topography.



D View from Public Right of Way adjacent to St Mary's Well Bay road. View truncated by topography and vegetation.



E View from Country Park, west of site. View filtered by intervening vegetation.






F View from Country Park, north west of site. View truncated by topography and vegetation.

Figure 10 - Viewpoints scoped out



KEY

-  Existing hedgerow to be retained
-  Canopy edge of existing trees to be retained
-  Proposed tree planting

1. NORTH WEST BOUNDARY Retain existing hedge and plant tree belt along Laverock Road.

PURPOSE: to tie in with landscape character of hedgerow trees on opposite side of Laverock Road, to screen views towards proposed built form from Laverock Road and Cosmeston Medieval Village and to protect setting of Cosmeston Medieval Village.
2. NORTH EAST BOUNDARY Plant tree belt or hedge towards north and retain existing hedge further south

PURPOSE: to screen potential views from elevated areas of Cosmeston Lakes Country Park and Glamorganshire Golf Club course, to tie in with the thick tree belt connecting corridor characteristic which is a common theme in the area and to reinforce field pattern.
3. SOUTH EAST Retain existing trees along disused railway embankment.

PURPOSE: to retain continuous tree line along disused railway embankment and provide green connectivity.
4. SOUTH WEST Retain existing hedgerow and plant tree belt.

PURPOSE: to retain existing character of mature hedgerow sided lane (Fort Road), to tie in with the thick wooded belt connecting corridor characteristic which is a common theme in the area and to reinforce field pattern.
5. BUILT FORM Materials and massing of proposed built form to tie in with local vernacular and not be reflective.

PURPOSE: to tie in with local landscape character and to not create a stand out feature in the landscape.

Figure 11 - Mitigation plan



Figure 12 - Masterplan for land north of site