Castle Farm
Free-range Egg Unit

Landscape and Visual Impact Assessment

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Viento Environmental Limited
www.viento-env.co.uk

Landscape and Visual Assessment

INTRODUCTION

1. This report presents the findings of a landscape and visual impact assessment that has been undertaken to identify the likely effects of the proposed free-range egg production development on the landscape character and visual amenity of the locality.
2. The assessment has concentrated on a 3.0km radius study area for landscape character, landscape designations and visual amenity, which is considered sufficient to identify all likely impacts on landscape character and visual amenity given the limited height and extent of the development (see **Figure LV1** for the extent of the study area).
3. The assessment is illustrated by **Figure LV1** and by **Viewpoints 1 - 6**.

METHOD OF ASSESSMENT

Assessment Approach

4. The assessment is a study identifying the key views towards the proposed development and describing how these views could change as a result of the proposal. In addition, the study identifies the landscape character of the site and surroundings and sets out the potential changes to landscape character that could occur as a result of the proposal.
5. The methodology used in this study conforms to the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3). GLVIA3 recommends that for non-EIA development, the assessment should be proportionate to the scale of the project and the nature of its likely effects and that an assessment of significance is not required.

Good Practice Guidance and Data

6. As mentioned above, the assessment has utilised guidance set out within the GLVIA3. Photographs illustrating views from each viewpoint have been taken using a Canon EOS 6D digital camera using a fixed lens with a 50mm focal length. Individual frames from the viewpoints have been stitched together to provide a panoramic image giving context to the viewpoint and the locality. Other photographs are used to illustrate the text within the report and are shown as single frame images. The viewpoints cover varying horizontal widths of view and so no set viewing distance should be ascribed to individual views. The viewpoint images are provided for information purposes and are labelled with relevant notes and should not be considered as a substitute to visiting a viewpoint in the field.

Assessment Process

7. The assessment has involved information review, fieldwork observations and photography, and has been undertaken in several stages, as presented in the following sections of this report:
    - Predicted effects and mitigation – a review of the visual characteristics of the proposed development to identify the aspects with the potential to give rise to visual effects and a description of the measures incorporated into the design to mitigate these effects.
    - Landscape and visual context – a review of the existing landscape and visual baseline of the study area, to identify landscape character, landscape designations and visual receptors in the study area.
    - Viewpoint analysis – to illustrate typical local views and to predict the changes to views as a result of the proposed development from a selection of viewpoints that represent the main visual receptors in the study area.
    - Landscape assessment – an assessment of the potential effects of the proposed development on landscape fabric, landscape character and landscape designations in the landscape study area.
    - Visual assessment – an assessment of the potential effects of the proposed development on the visual amenity of receptors in the visual study area.
    - Conclusions – a summary of the findings of the landscape and visual assessments.

Prediction Methodologies

8. The prediction methodologies for the viewpoint analysis, landscape assessment and visual assessment are provided at the beginning of these sections.

PREDICTED EFFECTS AND MITIGATION

9. A detailed description of the proposed development and information on the installation of the various components of this proposed development are provided in the **Design and Access Statement** of the Planning Application**.**
10. It is the visual appearance of the proposed development and associated activities and any proposed changes to the existing landscape fabric of the site that are the main aspects of the development with the potential to affect landscape and visual amenity and these are summarised below.
11. The main elements of the proposed development that would be visible would be:
    - Built form – measuring 149.35m x 20.10m and 5.88m to ridge of roof. Roof pitch of 15 degrees and an eaves height of 3.00m. Eight high velocity mechanical fans would

thermostatically control the building at a height of 80cm above the ridge of the roof. Three silos would be located adjacent to the northeastern corner of the building and would be of a height of 6.68m. The building, roof and silos/hoppers would all be juniper green (or similar) in colour. (Final colours to be agreed with the Council).

- Access track – access to the new building would be via an existing field gate access point from the local road, incorporating a hardstanding area adjacent to the southwestern and southern ends of the building and extending to surround the building at a width of approximately 5m on all sides. This access would require some limited alterations to the roadside hedgerow in order to provide a suitable width of access and visibility splay onto the public highway.
- Deliveries to and from the site (as set out within the Design and Access Statement).
- Landscape enhancement proposals – a detailed planting scheme would be submitted post permission. Drawing **RJC-MZ194-06** indicates the broad proposals for the landscaping measures including a mixed native tree belt along the western site boundary and scattered individual trees to the east of the building. These measures are proposed to aid in the integration of the building into the area as well as adding enhancements to local landscape fabric.

12. From a landscape and visual perspective, the number of elements visible has been minimised by the limited height of the development, the suggested juniper green colour for the built form, good levels of mature vegetation within the local landscape and a comprehensive set of landscape enhancements associated with the proposal.

LANDSCAPE AND VISUAL CONTEXT

13. The proposed development would be situated within an agricultural field to the east of a local road which runs between Underwood and Bishton. The site field is an agricultural field of irregular shape and bounded by a mixture of hedgerows, tree belts and post and wire fencing. On its southern end, the field is adjoined by a dense deciduous tree belt, with post and wire fencing on the eastern boundary and hedgerows on the western boundary.

14. The nearest residential properties to the proposed building are at Castle Farm, located approximately 250m to the southwest. The barn conversion at Castle Farm is located on the eastern side of the farm complex, comprising four properties in separate ownership. Castle Farmhouse is located further to the west within the complex and is owned by the applicant. Beyond this, the nearest residential properties are located within the village of Bishton, approximately 360m to the south of the site at its closest point.

Landscape Fabric

15. The field within which the proposed development would be located is currently used for rough grazing, having been infilled some years ago with surplus subsoil from the construction of the local brewery at Magor. As a result, it is understood that the land is not particularly productive and of poor quality. As already mentioned, on its southern end, the field is adjoined by a dense deciduous tree belt, with post and wire fencing on the eastern boundary and hedgerows on the western boundary. Further agricultural fields extend out to the east and would be utilised for the ranging of the hens.

16. The local road is bounded on both sides by hedgerows in the vicinity of the site, with hedgerows of varying heights typical as field boundaries in the locality. Several hedgerows in the area are quite gappy and are backed by post and wire fences. However, there are several distinct areas of mature trees including along the roadside immediately south of the site and a number of woodland blocks surrounding Bishton and Underwood including Ridings Wood, Poolhead Wood, Pant-yr-eos Wood, The Routs Wood, Great Wood, Stock Wood, Longditch Wood and woodland around Llanwern Hill and Park. All of these woodlands are located within 1.5km of the site, with the closest located within 350m of the proposed building.

17. The landform of the site itself is low lying and broadly flat, located at approximately 20m AOD. Beyond the site the landform gently rises to the east and west to heights of approximately 40m and 60m AOD, respectively. The village of Bishton and the local road between Bishton and Underwood are situated in the bottom of the valley, with the valley slopes rising on either side. Beyond this the landscape forms a series of low hills to the north, east and west, but to the south the landform is extremely low lying and flat across the site of the Llanwern Steel Works and further south.

18. A reservoir is located approximately 400m to the northwest of the site, close to Underwood, and a watercourse follows a course through much of the valley floor, immediately east of the local road in the vicinity of the site. Numerous drainage ditches, or reens, are located within the study area, mainly around Green Moor and to the south of Llanwern Steel Works. The nearest footpaths to the site are located to the west, across nearby pasture fields. One footpath begins at the local road immediately west of the site and travels to Castle Farm, where it meets a second footpath which travels broadly north/south through Pant-yr-eos Wood, across the local road and through Castle Farm to the church on the southwestern edge of Bishton.

Landscape Character

19. Natural Resources Wales (NRW) has produced a landscape character map for the whole of Wales, with 48 national landscape character areas (NLCAs). NRW has also provided detailed

descriptions of each NLCA (NRW, 2014). The proposed development would be entirely located within NLCA 34 – Gwent Levels, as indicated on **Figure LV1**.

20. The NRW NLCA describes the key characteristics of the Gwent Levels as:

- **Alluvium** – former marsh and inter-tidal areas from the Severn Estuary. Triassic mudstones are beneath.
- **Reclaimed landscape** – drained, improved, enclosed, historical, agricultural landscape
- **Divided by the Usk estuary** – into two distinct parts: the Wentlooge levels to the west and the Caldicot Level to the east. Collectively they occupy all the coastal levels between Cardiff and the England border by the Severn crossings. The Wye also flows out across the eastern end of this area.
- **Reens and willows or hedgerows** - a network of straight drainage ditches known as reens, acting also as field boundaries; still very extensive patterns but there are only remnant lines of willows on their banks. Hedgerows with less regular field shapes are on the slightly higher ground, reflecting different phases of reclamation and enclosure.
- **Flood embankment to the sea** - The land has been successively reclaimed from the sea and coastal marshes, and is protected from the tides by a sea wall.
- **Fertile soils and agriculture** - supporting a variety of crops including cereal, sheep grazing, dairying, lowland beef production and equestrian husbandry.
- **Wet pasture** - one of the largest areas of reclaimed wet pasture in Britain. The reens support rare aquatic plants are home to a diverse range of invertebrates.
- **Archeologically important** - one of the finest examples of a 'hand crafted' landscape, it is on the Register of Landscape of Outstanding Historic Interest. Some of the drainage and reclamation works still present in today's landscape date from the Roman period, while buried under the alluvium are archaeological deposits of immense potential and spanning the prehistoric to medieval periods.
- **Comparatively little settlement** - away from the urban fringes, the Levels have comparatively little settlement, with small nucleated and ribbon settlements linked by narrow roads.
- **Open views between hills in Wales and England** – an exposed landscape in places with long views to surrounding areas and (from only areas with slight elevation) to the Severn Estuary and Bristol Channel.
- **Major developments on fringes** – Llanwern Steelworks, a power station and pylons stand out in the flat landscape, while disproportionately large modern factory units outside Newport are also visible for long distances, and main motorways and rail lines are heard.

Suburban development has enlarged settlements and urban development has spread from the adjacent Cardiff and Newport areas.

21. In total two NLCAs fall within the 3km radius study area, as indicated on **Figure LV1** (NLCA 34 – Gwent Levels and NLCA 32 – Wye Valley and Wentwood).

Landscape Designations

22. There are no national or local landscape designations in the 3.0km radius study area. However, the site is covered by the Countryside Strategic Policy SP5 which states

Development in the countryside (that is, that area of land lying beyond the settlement boundaries shown on the proposal and inset maps) will only be permitted where the use is appropriate in the countryside, respects the landscape character and biodiversity of the immediate and surrounding area and is appropriate in scale and design. Housing development, rural diversification and rural enterprise uses, beyond settlement boundaries, will only be appropriate where they comply with national planning policy.

23. The policy context is discussed in more detail later within this report and also within the **Design and Access Statement**.

Visual Receptors

24. The visual receptor locations within the 3.0km radius study area include:

- Settlements – Langstone and the western edge of Magor, as well as Bishton village, Llanbeder, Llandevaud, Llanwern, Underwood, Llanmartin, Wilcrick and Llandevenny.
- Individual residential properties – scattered houses and farmsteads.
- Long distance recreational routes – a small section of SUSTRANs Cycle Route 4.
- Local public rights of way – footpaths, bridleways and byways open to all traffic (BOATs).
- Public highways – including the M4, A48, A4810, B4245 and a network of minor roads.
- Passenger railway – one line runs to Newport through the south of the study area immediately north of Llanwern Steel Works.

25. The Countryside and Rights of Way (CRoW) Access Lands Maps accessed through the NRW website [1] have been checked and show only two very small areas of access land within 3.0km of the site. The closest of these is part of Great Wood, approximately 1.1km west of the proposed building, with the second area located within Llandevaud, approximately 2.0km northeast of the proposed building.

1 http://lle.gov.wales

VISUAL ANALYSIS

Theoretical Visibility Analysis

26. **Figure LV1** includes a zone of theoretical visibility (ZTV) for the proposed building, indicating the locations within a 3.0km radius where topography would theoretically allow visibility of the building. This has been based on two of the highest points of the proposed building; the top of the fans on the roofline (Points A and B). These points have been used at a height above ground level relating to the height of these built elements within the design. The ZTV has been generated using a computer-based intervisibility package and the Ordnance Survey Digital Terrain Model (DTM) with height data at 50m intervals.

27. The ZTV is based on bare terrain topographical data only. It does not take into account the screening effects of any minor topographic features, vegetation such as woodland, tree belts and hedgerows or built structures and therefore tends to over-emphasise the extent of visibility in this type of well vegetated landscape, providing a worst case scenario. In reality, these surface features would fragment and reduce the extent of most of these zones of theoretical visibility, and, in a well vegetated landscape such as this, would also reduce the amount/proportion of the proposed development visible from any given location.

28. Due to the valley floor location of the proposed building, the ZTV indicates extremely limited potential visibility of the proposal from the majority of the study area. As the ZTV is based purely on topography, it is not surprising that the ZTV suggests that the proposal is expected to potentially be visible from much of the low lying and flat land within the south of the study area, but would be entirely screened from the vast majority of the undulating landform within the north, west and east of the study area.

29. The ZTV does not illustrate the decrease in the scale of the proposed built development with increased distance from the site which is better illustrated by viewpoints. Fieldwork and the viewpoint analysis are essential as a way of verifying the ZTV and undertaking a thorough assessment.

30. The ZTV has aided in the identification of viewpoints. These viewpoints are intended to illustrate typical visibility of the proposal from the local area and have been located in positions where the ZTV has suggested that potential visibility of the proposed building may be available.

31. Six viewpoints (1 – 6) were selected to illustrate this appraisal, each located on publicly accessible locations representing some of the most open and/or elevated locations or receptors within the study area. These viewpoints are listed below and their locations are shown on **Figure LV1**.

Viewpoint Analysis

32. A detailed description of the six viewpoint panoramas and the potential changes that would occur through the introduction of the proposed development are contained below. It is important to note that the viewpoints were photographed in March 2018, in winter months and they cover varying horizontal widths of view and so no set viewing distance should be ascribed to individual views. The viewpoint images are provided for information purposes and are labelled with relevant notes and should not be considered as a substitute to visiting a viewpoint in the field

Table LV1 – List of viewpoints

Vp	Viewpoint Name	NGR	Distance from proposed building	National Landscape Character Area	Visual Receptor
1	Footpath west of site	339170 188330	0.1km	Gwent Levels	Walkers
2	Local road north of site	339300 188525	0.12km	Gwent Levels	Motorists
3	Northern edge of Bishton	339285 187940	0.3km	Gwent Levels	Residents, walkers, motorists
4	Footpath northeast of Bishton	339575 188095	0.36km	Gwent Levels	Walkers
5	Junction of footpath and local road	339200 188775	0.38km	Gwent Levels	Walkers, motorists
6	Llandevaud	340410 189780	1.9km	Wye Valley and Wentwood	Motorists, residents

Prediction Methodology

33. The following viewpoint analysis has described the existing view from each viewpoint and has identified the visual receptors at each viewpoint. In accordance with GLVIA3, the sensitivity of

each visual receptor group at each location is a function of the susceptibility of visual receptors to change at that location and the value attached to these views.

34. All visual receptors are people and are assumed to be equally sensitive to change. However, the location and activities of visual receptors influence the way in which they currently experience the landscape and views, the extent to which views of the surrounding landscape may contribute to their existing visual amenity, the value they place on these views and their susceptibility to changes in these views. Accordingly, at any one location there may be different levels of sensitivity for the different receptor groups, the sensitivity may vary depending on the direction of the view, and any one receptor group may be accorded different levels of sensitivity at different locations.

35. Receptor susceptibility levels of susceptible, moderate susceptibility and slight susceptibility are used taking into account the following factors:

- Receptor location, occupation or activity,
- Movement of receptor and duration and frequency of view experienced,
- Focus of attention and interest.

36. The judgement of value is based on a five point scale – National value, County/Borough/District value, Community value, private value, unvalued. The value attached to a location or to a particular view at a location can influence the purpose and expectation of receptors at the location and the judgement of value takes into account:

- Recognised value – for example by the presence of planning designations or designated heritage assets,
- Indicators of value – to individuals, communities and society generally, such as the popularity of a location.

37. Accordingly, within this assessment visual receptor sensitivity is determined in terms of the sensitivity of each location for each receptor type (rather than the sensitivity of the receptors *per se*), using a five point relative scale (high, high/medium, medium, medium/low and low).

38. The magnitude of the change in the views from the six viewpoints has been assessed based on the assessor's interpretation of largely quantifiable parameters, including:

- Distance and direction of the viewpoint from the development.
- Extent of the development visible from the viewpoint.
- Field of view occupied by the development (horizontal and vertical angles of view) and proportion of view (as a percentage of the panorama).
- Context of the view and degree of contrast with the existing landscape and built elements (background, form, composition, pattern, scale and mass, line, movement, colour, texture, etc).

- Scale of change with respect to the loss or addition of features in the view.
- Duration and nature of the effect, eg direct/ indirect, secondary, cumulative, temporary/ permanent, short term/ long term, intermittent/ continuous, reversible/ irreversible, etc (as related to the nature of the development).

39. This magnitude of change scale is a relative scale and is not an absolute scale.

40. The resulting overall degree of impact is a combination of receptor sensitivity and the magnitude of change and is divided into eight levels of impact (major, major/moderate, moderate, moderate/ minor, minor, minor/ negligible, negligible and imperceptible) as indicated in the matrix below.

Table LV2: Assessment of overall impact

Location sensitivity	Magnitude of change			
	Substantial	Moderate	Slight	Negligible
High	Major	Major/ moderate	Moderate	Moderate/ minor
High/ medium	Major/ moderate	Moderate	Moderate/ minor	Minor
Medium	Moderate	Moderate/ minor	Minor	Minor/ negligible
Medium/ low	Moderate/ minor	Minor	Minor/ negligible	Negligible
Low	Minor	Minor/ negligible	Negligible	Imperceptible

Viewpoint 1 – Footpath west of site

41. This viewpoint is located at approximately 30m AOD and 100m west of the proposed building on a local footpath on the western valley slopes, looking east across pasture fields within the Gwent Levels NLCA. The foreground of the view is open, although the roadside hedgerows along the local road are discernible within the centre of the view, as is the deciduous tree belt immediately south of the site. Poolhead Wood and Ridings Wood to the east of the site are both visible, seen along the skyline of this view. To the south the imposing form of Llanwern Steel Works and several wind turbines are visible behind the built form of Castle Farm. To the north the view is predominantly contained and enclosed by nearby woodland.

42. The proposed building would be visible from this location as a new and modern building within the view. However, the building would be low-set within the view, where the skyline and much

of the wide panorama would not be interrupted. Over time the landscaping measures proposed as part of the application would establish and provide some screening and filtering of views of the proposal from this direction. As a result, over time the visibility of the proposal would be limited to upper sections of the building, with the vegetation softening views of the built form.

43. The viewpoint represents views of walkers (high/medium sensitivity) along the local footpath. Initially the magnitude of change in the view would be *moderate* with the building seen as part of wide views where modern built form is not uncharacteristic, reducing to *slight* once landscaping measures establish. This would result initially in a moderate impact for walkers. However, over time as landscaping measures establish these effects would reduce to a moderate/ minor impact for walkers.

Viewpoint 2 – Local road north of site

44. This viewpoint is located at approximately 25m AOD and 120m north of the proposed building on a local road within the Gwent Levels NLCA. The roadside hedgerows are evident within the view on either side of the local road and can be seen as robust and intact along this section of the road. Furthermore, a number of mature trees adjacent to the road can be seen. At this point the proposed building would be visible above these hedgerows with upper sections of the building discernible filtered by mature trees, although in summer months the vast majority of the building would be screened. However, further north of this point along the local road the proposed building would be screened by foreground and intervening vegetation. It is worth noting that this is one of the most open points of the local road looking towards the site and so allows one of the most open views towards the proposed development in winter months.

45. The viewpoint represents views of motorists (medium sensitivity). When the mature trees are not in full leaf the upper sections of the proposal would be visible, where the magnitude of change would be *slight*, resulting in a *minor* impact for motorists at this point. When the mature trees are in full leaf, the building would be barely discernible, where a *negligible* magnitude of change and a *minor/negligible* impact would be expected.

Viewpoint 3 – Northern edge of Bishton

46. This viewpoint is located on a local road at approximately 10m AOD and 300m south of the proposed building within the Gwent Levels NLCA. A lane opposite the viewpoint provides access to nearby footpaths and the viewpoint represents the northern edge of the village.

47. Garden vegetation from a neighbouring property obscures much of the view north, with only two neighbouring fields visible on the eastern side of this shallow valley landform. As the

panorama indicates, the nearby vegetation, even in winter months, would entirely screen the proposed building from view.

48. The viewpoint represents views of residents (high sensitivity), footpath users (high/ medium sensitivity) and motorists (medium sensitivity). The magnitude of change in the view would be *none*, resulting in *no impact* for residents, footpath users and walkers at this point.

Viewpoint 4 – Footpath northeast of Bishton

49. This viewpoint is located on a local footpath at approximately 30m AOD and 360m southeast of the proposed building within the Gwent Levels NLCA. The footpath is not easily accessible from the village although it is clearly signposted. Near Ridings Wood the elevated location affords some wide and open views, with the extensive Llanwern Steelworks and a number of wind turbines visible to the south. Small parts of Bishton village and Castle Farm are also visible although the nearby field boundary hedgerows obscure some of the detail of the view. The proposed building would be more proximate to the viewpoint than Castle Farm (approximately 80m closer), and located on ground approximately 5m lower in elevation than Castle Farm. As a result, the existing hedgerows would entirely screen the proposal from view from the footpath.

50. The viewpoint represents views of walkers (high/medium sensitivity). The magnitude of change in the view would be *none* as the proposed building would be entirely screened, even in winter months, resulting in no impact for walkers at this point.

Viewpoint 5 – Junction of footpath and local road

51. This viewpoint is located at the junction of a local footpath with a local road at approximately 40m AOD and 380m north of the proposed building, located within the Gwent Levels NLCA. At this location the view is largely contained by roadside hedgerows and other nearby vegetation. Occasional glimpses of more distant land, such as towards Poolhead Wood to the east and longer distance to the south are only available at breaks in the hedgerow. It is worthwhile noting that neither Castle Farm nor any part of Bishton village are visible from this location. Castle Farm is situated in a more elevated position than the proposed building, but is entirely screened. At this location the proposed building would also be completely screened by intervening vegetation, even in winter months.

52. The viewpoint represents views of walkers (high/medium sensitivity) and motorists (medium sensitivity). The magnitude of change in the view would be *none* as the proposed building would be entirely screened, even in winter months, resulting in no impact for walkers or motorists at this point.

Viewpoint 6 – Llandevaud

53. This viewpoint is located on a local road just south of Llandevaud at approximately 70m AOD and 1.9km northeast of the proposed development, within the Wye Valley and Wentwood NLCA. From this location elevated views are available where distant higher land can be seen, although much of the valley landscapes are covered in a wealth of vegetation. Parts of Llanwern Steelworks are visible in the distance, although Bishton village and Castle Farm are both entirely screened by vegetation. The proposed building would also be entirely screened from view, even in winter months.

54. The viewpoint represents views of motorists (medium sensitivity) and potentially some upper storey views for a few residents on the southern edge of Llandevaud (high sensitivity). The magnitude of change in the view would be *none* as the proposed building would be entirely screened, even in winter months, resulting in no impact for walkers or motorists at this point.

Table LV3 – Summary of visual impacts

Vp	Viewpoint Name	Distance from proposed building	Predicted Visual Impacts
1	Footpath west of site	0.1km	Walkers – initially moderate impacts, reducing to moderate/ minor impacts over time
2	Local road north of site	0.12km	Motorists – in winter minor impacts, with minor/ negligible impacts through summer months
3	Northern edge of Bishton	0.3km	No impacts
4	Footpath northeast of Bishton	0.36km	No impacts
5	Junction of footpath and local road	0.38km	No impacts
6	Llandevaud	1.9km	No impacts

Further Photographs

55. It is noted that the ZTV in **Figure LV1** suggests that the proposed development may potentially be visible from many central parts of the study area within approximately 500m of the proposed building and also from much of the flat, low lying landscape within the south of the study area. However, the ZTV also indicates that there would be no potential visibility of the proposed building from large parts of the study area beyond approximately 0.5-1km away. Fieldwork suggested that even in locations beyond 0.5km from the site where the ZTV suggested visibility of the proposal could potentially be available, in reality good levels of vegetation would regularly screen the proposed development from view. In addition, the extensive built form of Llanwern Steelworks would screen the proposal from much of the south of the study area.

56. Even within 500m of the proposed building, a number of potential views identified on the ZTV would not be available due to the combination of local landform with mature vegetation. As a result, the number of locations and the extent of visibility of the proposal would be extremely limited. The photographs below have been provided as evidence of this extremely limited potential visibility.

Plate 1 – Mature vegetation immediately southwest of site by Castle Farm entrance. NGR 339245 188285.

Plate 2 – Mature vegetation along the local road between Bishton and Underwood. NGR 339245 188490

Plate 3 – Typical roadside vegetation along local road between Bishton and Underwood.

NGR 339300 188610.

Plate 4 - View towards the site from local road approximately 100m to south showing thick vegetation levels at 339995 188115.

Plate 5 – View north from Bishton by Fox Hollows 339220 187680.

Plate 6 – View north from southern edge of Bishton near Village Reen at 339145 187420.

LANDSCAPE ASSESSMENT

57. This assessment draws on the review of the predicted effects of the development, the landscape fabric of the site, the key characteristics of the NLCAs, the purposes/objectives of the landscape designations, the viewpoint analysis and fieldwork observations.

Effects on Landscape Fabric

Prediction Methodology

58. Landscape fabric is composed of the physical components of the landscape (eg landform, land cover and landscape elements and features). Developments can bring about both direct and indirect effects on landscape fabric. Direct effects occur where changes to the fabric of the landscape arise as the result of physical disturbance, for example, the loss of landscape elements such as hedgerows, walls and trees. Indirect effects are consequential changes that are separated from the source of the change in a temporal or spatial manner, for example changes in vegetation downstream as the result of modifications to surface water patterns upstream in a catchment area.

59. This assessment of effects on landscape fabric considers the existing landscape fabric of the site and the predicted effects of the development, and makes a judgement as to whether there are likely to be any beneficial or adverse changes to landscape fabric.

60. The proposed building would be located within a pasture field where the footprint of the building and hardstanding area would require the removal of up to four trees at the northern end of the proposed building. In addition, access from the public highway would require the removal of approximately 10-15m of the roadside hedgerow so as to provide a suitable width of access. As the hedge is approximately 1m high at this point, no further hedgerow removal would be required for an appropriate visibility splay.

61. A range of landscape enhancement measures are proposed as part of the development including a tree belt along the western site boundary and the planting of a number of individual trees to the east of the building.

62. Overall there would be some limited disturbance of existing landscape features through the removal of four existing trees and the alterations to the roadside hedgerow, although there would be appropriate reinstatement of the ground over all areas disturbed by the works. Landscaping measures are also proposed, as outlined above. Therefore, overall there would be a neutral effect on landscape fabric as a result of the proposal.

Effects on Landscape Character

Prediction Methodology

63. In accordance with GLVIA3, the sensitivity of each landscape unit is judged on the basis of its value and its susceptibility to change arising from the specific type, scale and location of development proposed.

64. The susceptibility to change of a landscape unit is based on a three point scale (susceptible, moderate susceptibility and slight susceptibility) and depends on:

- The key characteristics of the landscape, and the clarity and robustness of these characteristics,
- Nature of views (visual enclosure/openness of views and extent to which views contribute to landscape character),
- Landscape planning policies and strategies for the landscape unit,
- The nature of the changes to landscape character and views that could be brought about by the type, scale and location of the proposed development and the compatibility of these with the above factors.

65. Judgements on landscape value are based on those given in published landscape character assessments (where given) and/or checked in the field from fieldwork observations.

66. Accordingly, the assessment of landscape sensitivity for each landscape unit is derived from the judgement of value and combined with the judgement of susceptibility to give a level of landscape sensitivity as part of a five point scale – high, high/medium, medium, medium/low or low sensitivity.

67. The magnitude of the change in landscape character is assessed using a four point scale – substantial, moderate, slight and negligible. This magnitude of change scale is a relative scale and is not an absolute scale. It is based on the assessor's interpretation of largely quantifiable parameters, those of which have already been set out within paragraph 32 above.

68. The sensitivity of the LCT is then combined with the magnitude of change to predict the potential impacts on landscape character as set out within the matrix below (the same as illustrated in **Table LV2** above).

Table LV2 – Assessment of overall impact

Location sensitivity	Magnitude of change			
	Substantial	Moderate	Slight	Negligible
High	Major	Major/ moderate	Moderate	Moderate/ minor
High/ medium	Major/ moderate	Moderate	Moderate/ minor	Minor
Medium	Moderate	Moderate/ minor	Minor	Minor/ negligible
Medium/ low	Moderate/ minor	Minor	Minor/ negligible	Negligible
Low	Minor	Minor/ negligible	Negligible	Imperceptible

Gwent Levels NLCA

69. Both fieldwork and the viewpoint illustrations have indicated that the proposed site is located within a well vegetated landscape within the bottom of a shallow valley landform. The NLCA describes the Gwent Levels as a lowland landscape where substantial areas of rural landscape and traditional historic features remain, although in parts the landscape has changed

significantly through the development of motorways, major rail lines and the large steelworks. However, the NLCA does not ascribe a sensitivity to the Gwent Levels.

70. It is worth noting that the limited height and extent of the proposed development, located in a low lying location within a well vegetated landscape such as this, would be generally visually contained and would not alter any of the key characteristics of this NLCA as outlined above (key characteristics – alluvium soils, reclaimed landscape, divided by the Usk estuary, reens and willows or hedgerows, flood embankment to the sea, fertile soils and agriculture, wet pasture, archaeologically important, comparatively little settlement, open views between hills in Wales and England, major development on fringes). Five of the six viewpoints are located within this NLCA (Viewpoints 1 - 5) and also illustrate the very limited visibility of the proposal.

71. The NLCA describes views out of the area as a key characteristic, although in the area local to the site these types of views are less readily available where much of the character of this part of the landscape is derived from its intrinsic characteristics and features where the susceptibility to the type and location of development proposed is considered to be moderate and the sensitivity of the LCT to the proposal is considered to be medium.

72. Overall, as already discussed, this is a well vegetated landscape with numerous woodland blocks on higher parts of the local valley surrounding the proposed building. In addition, further tree belts are spread throughout the valley; associated with the local road, the reservoir, disused tracks and at some field boundaries. As a result, the potential visibility of the proposal suggested by the ZTV would be far less in reality, as illustrated by the viewpoints. Each viewpoint is located within 400m of the proposed building, where only two of the five views would gain any visibility of the proposal. In addition, Viewpoint 2 would gain extremely limited visibility of the proposal when the trees are in leaf, at a distance of approximately 120m away. Essentially the viewpoints have illustrated that the area within which the proposal would be visible would be extremely limited and the additional fieldwork photographs (Plates 1 – 6) have corroborated this finding. Within approximately 250m from the proposed building - mainly from the valley slopes within this distance – the proposal is expected to be visible to some degree. Initially this visibility would only be screened or filtered by the existing field and roadside hedgerows, the tree block to the south and the scattered mature trees, although the viewpoints show that all these elements can be effective screens in some views. However, over time the landscape mitigation measures of the tree belt along the western boundary and the further individual trees to the east of the building would add further filtering and screening to views within 250m of the site, aiding in the further integration of the building into the landscape.

73. Within the vast majority of the NLCA within the study area, the proposed development would not be visible, screened by intervening vegetation, topography and built form, as indicated by the ZTV and Viewpoints 3 - 5, where no impacts on landscape character would occur. As mentioned above, from some proximate locations within the NLCA some partial visibility of the proposed building would be available, similar to the views indicated by Viewpoints 1 and 2, where the partial visibility would result in a moderate or lower magnitude of change and a moderate/minor or lower impact on landscape character. However, as the proposed landscape mitigation measures establish the magnitude of change would reduce down to slight or negligible levels, resulting in minor and minor/negligible impacts on landscape character within the Gwent Levels.

Wye Valley and Wentwood NLCA

74. This NLCA is located within the north of the study area mainly covering land north of the M4 motorway at a distance of approximately 1.0km from the site at its closest point. The ZTV indicates that the proposed building would potentially be visible from extremely limited parts of the NLCA in the vicinity of Llandevaud. Viewpoint 6 indicates the view towards the site from a local road near Llandevaud and illustrates that the layering of mature vegetation within the Gwent Levels NLCA would entirely screen the proposed development from view, even in winter months. As a result, no impacts on the character of this NLCA are expected to occur.

Effects on Landscape Designations

75. As mentioned in paragraph 22 above, there are no national or local landscape designations in the 3.0km radius study area. However, the site is covered by the Countryside Strategic Policy SP5 which states

Development in the countryside (that is, that area of land lying beyond the settlement boundaries shown on the proposal and inset maps) will only be permitted where the use is appropriate in the countryside, respects the landscape character and biodiversity of the immediate and surrounding area and is appropriate in scale and design. Housing development, rural diversification and rural enterprise uses, beyond settlement boundaries, will only be appropriate where they comply with national planning policy.

76. As set out above, the effects of this proposal on landscape character are extremely limited in extent and intensity. The limited height of the proposal and the careful consideration of landscape mitigation measures have sought to respect the landscape context of the site and minimise the visual appearance and the landscape effects.

VISUAL ASSESSMENT

Prediction Methodology

77. Visual amenity arises from a visual receptor's experience of the visual world around them and the value they place on a particular view or views. This assessment draws on the predicted effects of the development, the viewpoint analysis and fieldwork observations, and discusses the predicted effects on the visual amenity of receptors at a range of visual receptor locations within the study area. Within this study area these include settlements, individual residential properties, long distance recreational routes, the local public rights of way network and public highways.

Settlements

78. Langstone, Magor, Underwood and Llanbeder are the main settlements within the study area. The ZTV in **Figure LV1** indicates that topography would screen the proposed building from each of these settlements, as well as from Llanwern, Llanmartin, Wilcrick and Llandevenny.
79. The only two settlements with potential visibility of the proposal as identified on the ZTV are Bishton and Llandevaud. However, Viewpoint 6 indicates that no potential visibility of the proposal is expected from Llandevaud due to the screening effects of intervening vegetation.
80. Viewpoint 3 is located on the northern edge of Bishton, the closest part of the settlement to the proposed site. Bishton then extends to the south, across lower lying land within the valley floor, as illustrated by Plates 5 and 6 above. Plate 4 illustrates some of the vegetation located along the valley floor in the landscape intervening the site and the village. All these elements combine to illustrate that the proposed building would not be visible from residential properties within the village.

Individual residential properties

81. The closest individual properties to the site are within the Castle Farm complex. Beyond this there are no other individual properties within 500m of the site outside of Bishton village. Within the Castle Farm complex, any views towards the proposed building would be filtered, not only by the tree block immediately south of the site, but also by further tree blocks on the western side of the local road by the farm entrance. Limited upper sections of the proposed building would be discernible initially, although over time the landscape mitigation measures would add further filtering and screening to these views. Fieldwork has indicated that initially a *slight* magnitude of change would occur, reducing down to a *negligible* magnitude over time as the further landscaping establishes. Residential receptors are of *high* sensitivity, where initially a *moderate* and then a *moderate*/*minor* impact would be expected.

Long distance recreational routes and public rights of way

82. **Figure LV1** indicates the only long distance route within the study area is the SUSTRANs route 4 through Green Moor. The ZTV suggests potential visibility of the proposal from this route at distances of over 2.5km away. However, fieldwork found that the Llanwern Steelworks would entirely screen the proposal from view from this route.

Public highways

83. The ZTV suggests potential views of the proposal would be available from only a few local roads in the study area. However, roads in this landscape are characteristically bounded by mature hedgerows with numerous hedgerow trees, as indicated in several photographs above and within the viewpoints. As a result, views of the proposal would be extremely limited in reality, with fieldwork suggesting that only visibility of the proposal from a limited section of the local road immediately west of the site would be available. This visibility would be very intermittent and limited to the section of the route in close proximity of the site. Fieldwork has identified this as a section approximately 200m in length between Viewpoint 2 and the site itself. Immediately south of the site the high levels of local vegetation would screen the proposed building and no visibility of the building is expected from any part of the road south of the site.

Rail Passengers

84. **Figure LV1** indicates the only rail route within the study area is located immediately north of the Llanwern Steelworks. The ZTV suggests potential visibility of the proposal from this route at distances of over 1.2km away. However, fieldwork found that intervening built form within Bishton and associated vegetation would entirely screen the proposal from view from this route.

CONCLUSIONS

85. The ZTV has suggested greater potential visibility of the proposed development within a 3km radius study area than would be available in reality. This is illustrated by the viewpoints and the photographs set out above, which have all been chosen from locations where the ZTV suggested visibility of the proposal would be available. However, in the majority of cases the viewpoints and the photographs illustrate that the screening effects of local vegetation combined with the local topography would vastly reduce the areas where the proposal would be visible from that which is indicated on the ZTV.

86. In terms of landscape character, whilst the introduction of the proposed building may be a noticeable addition within the landscape immediately surrounding the site, the limited height

of the development and the good levels of existing localised vegetation would assist in integrating the proposal into the local landscape. The proposed landscaping measures would further assist with this integration. Overall it is considered that the proposal could be accommodated well within the local landscape context.

87. In landscape character and visual amenity terms, in combination with the landscape mitigation proposals, the proposed development would be a suitable fit within the context of its immediate surroundings and would result in extremely limited changes to views and landscape character within the local area as illustrated by the viewpoints associated with this study.