



**PINS ref APP/U2235/W/24/3346817
LPA ref: 23/504068/OUT**

Appeal by

B.Yond Homes

in relation to

**LAND EAST OF ALBION ROAD AND NORTH
OF COPPER LANE, MARDEN, KENT**

**SUPPLEMENTARY PROOF OF
EVIDENCE ON LANDSCAPE AND
VISUAL MATTERS**

prepared by

Peter Radmall, M.A., B.Phil, CMLI

on behalf of

Maidstone Borough Council

November 2024

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Appendix A: MSenvision Technical Audit of the Visual Material

1. Introduction

- 1.1 My name is Peter Radmall. I am the Council's witness on landscape and visual matters. My background and details are set out in my main proof of evidence.
- 1.2 At exchange of evidence, the appellant issued a number of new or updated documents, which were consequently not reflected in my own proof at that time. This Supplementary Proof provides a response to these and confirms whether any aspects of my evidence need to be amended.
- 1.3 The documents (as set out in Mr Tomes' evidence, and marked by me as "new" or "updated") are as follows:

Supporting Documents

- Landscape and Visual Effects summary tables – UPDATED
- Policy LPRSA295 summary table – NEW
- Outline Landscape and Ecological Management Plan (OLEMP) – UPDATED
- Verified Photography Methodology by Realm – NEW
- 1035-OA- AIA Broad Oak Tree Consultants - UPDATED

Supporting Figures

- ASLA01: Appeal Scheme Illustrative Layout – UPDATED
- ASLA02: Digitised ZTVI – NEW (but issued prior to exchange and replaces ZVI within LVIA)
- ASLA03 to ASLA07: Viewpoint photography – NEW (but replaces photography within LVIA)
- ASLA08: Verified photography locations – NEW (but issued prior to exchange and replaces photo locations within LVIA)

- ASLA09 to ASLA38: Verified photography, block model and rendered viewpoints – NEW (but replaces photography within LVIA)
- ASLA39 to ASLA42: Side by side verified rendered photomontages vs existing – NEW
- ASLA43: Appeal Scheme Tree Retention/Protection Plan – UPDATED
- ASLA44: Appeal Scheme Illustrative Green Infrastructure (GI) Plan - NEW

1.4 I have also taken the opportunity to commission a technical audit of the ZTVI, verified photography and visualizations from Mr Mike Spence of MSenvision. Mr Spence’s report is attached as **Appendix A** to this document.

1.5 In summary, he raises a number of concerns about the reliability of the Realm photography and visualizations. These concerns are sufficient to amount to a “health warning” when viewing this material. However, for purposes of consistency when commenting on them, I have “taken them as read”, whilst being mindful of Mr Spence’s concerns.

1.6 The remainder of this Supplementary Proof is organised as follows:

- Section 2 considers the updated Tree Retention/Removal Plan (ASLA 43), the new Green Infrastructure Plan (ASLA 44) and the updated Illustrative Layout (ASLA 01);
- Section 3 considers the updated OLEMP;
- Section 4 summarises Mr Spence’s review of the verified views;
- Section 5 provides my comments on the impacts of the appeal scheme, as shown in the verified views;
- Section 6 comments on Mr Tomes’ summary table of the scheme’s response to the Policy LPRSA295 conditions; and
- Section 7 provides a summary and conclusion.

2. ASLA43, ASLA44 and the Illustrative Layout

2.1 The updated Tree Retention/Removal Plan shows the following additional vegetation to be removed:

- vegetation on the Albion Road frontage to the north of the access road;
- the existing hedgerow on either side of the emergency access on Copper Lane; and
- a row of immature oaks within the southern footprint of the attenuation basin (which the updated OLEMP states would be transplanted within the site).

2.2 The potential for additional vegetation loss associated with the Copper Lane access and the attenuation basin was anticipated in my main evidence.

2.3 The Green Infrastructure Plan is a new document, and is assumed to supersede the landscape elements of the previous Illustrative Layout. I have therefore not duplicated my comments in relation to the updated Illustrative Layout.

2.4 Two categories of planting shown on the Green Infrastructure Plan are of particular relevance my comments about structural landscaping. "Reinforced planting" is assumed to be new planting intended to augment existing vegetation, typically through the "bulking up" or "gapping up" of hedgerows. Such planting is proposed in the following locations:

- within the western and eastern perimeter hedges;
- alongside the remnant central hedge;
- to the north of the western pond;
- along the northern perimeter; and
- around parts of the perimeter of the north-western "panhandle".

2.5 Clarification of where such planting is proposed was previously lacking, and now allows me to confirm that the scheme would achieve a Medium/High degree of compliance with Condition 11, as concluded in my main evidence.

2.6 "Strategic proposed planting" is assumed to come the closest to my definition of structural landscaping, and is proposed in the following locations:

- 2 specimen trees and 2 small groups to the west of the emergency access off Copper Lane;
- 1 specimen tree to the N of the attenuation basin, together with marginal planting around its W/SW edge;
- 3 specimen trees to the N of the eastern ponds;
- 4 specimen trees along the E/W section of the access road;
- 3 specimen trees, together with smaller trees, along the NW/SE section of the access road;
- 2 specimen trees close to the retained section of the birch tree-belt;
- 1 specimen tree, together with a grid pattern of smaller trees, within the village green; and
- 1 specimen tree/group of trees within the higher-density housing to the NE.

2.7 It should be noted that the above description of the plan may not be wholly accurate, since it is sometimes difficult to distinguish between the green tones. Nevertheless, the overriding concept is clear, relying mainly on the distribution of individual trees within the green spaces and road corridors on the central part of the site. Where these trees are of substantial scale (e.g. "standalone oaks") they have the potential to "soften and break up the impact of built development" – as required under Condition 9.

2.8 Two limitations are evident, however. Firstly, such planting is not proposed "throughout the site" – and due to spatial constraints is unlikely to be so at Reserved Matters, particularly approaching the southern boundary and within the "panhandle" area. Secondly, it is not proposed to introduce larger-scale features such as tree-belts or woodland copses, presumably for similar reasons. My reservations about compliance with Conditions 9 and 10, as set out in my main evidence, therefore remain.

3. Updated OLEMP

3.1 The OLEMP has been updated to add new sections on habitat management for reptiles (3.1) and turtle dove (3.2), and to refer to ecological enhancements throughout the area descriptions. Additional landscape references are as follows:

- Area i, Northern Arrival: New footway along eastern side of Albion Road;
- Area iv, Southern Edge and Lower Levels: Attenuation basin now described as “naturalised” (although the hydrological meaning of this remains unclear);
- New pumping station, to be screened by existing/proposed vegetation;
- Row of immature oaks to be transplanted within the site;
- Two sections of orchard to be retained, although this is inconsistent with the arboricultural report; and
- Reference to new hedgerows added.

3.2 There are no implications for my main evidence.

4. Summary Technical Audit of the Verified Views

4.1 MSenvision’s technical audit of the visual material is attached at **Appendix A**. In relation to the verified views, Mr Spence’s concerns may be summarized as follows:

- The size at which the images have been presented is not consistent with technical guidance, and does not represent how the views are experienced on site;
- The use of a 35mm lens, as opposed to 50mm;
- An absence of detail about how the 3D model has been prepared;

- Failure to capture the full extent of the site in some views;
 - Absence of winter and summer photography to capture the Year 1/Year 15 views respectively; and
 - Failure to match the rendering technique to the cylindrical photography.
- 4.2 The precise implications of these matters, in terms of the appearance and interpretation of the images, is difficult to assess. However, they should be borne in mind by way of a “health warning” when viewing the images.

5. Comments on the Verified Views

- 5.1 Notwithstanding Mr Spence’s concerns, I comment as follows on the demonstrable impact of the development and the effectiveness of the proposed landscaping.
- VP1: Albion Road – View into site along access road, with nearest dwelling prominent. Mitigation has some effect, but this is limited by the close range of the view and the proximity of the junction.
 - VP2: Plain Road – Roofs/facades of the proposed dwellings are prominent above the hedgerow along Albion Road, screening existing glimpses of Russet Grove. Mitigation planting appears to have very limited effect.
 - VP3: Thorn Road – Appeal scheme slightly more visible than Russet Grove, seen through gaps in perimeter vegetation and despite mitigation planting.
 - VP4: Copper Lane – Site character transformed, with settlement edge advancing towards middle-ground. Despite existing views towards Russet Grove, built development would extend along about half of the skyline. Whilst foreground planting provides some screening, the foreground remains largely open as far as the “front row” of dwellings.

- VP5: PRoW KM278 – Wholly rural view, with glimpse of Holders Farm and barn. No obvious impact.
- VP6: Thorn Road – A largely rural view, with glimpses of existing dwellings on Albion Road. Proposed development visible across sloping site and partly along skyline.
- VP7: PRoW 278 - A similarly rural view, but with no obvious impact.
- VP8: PRoW 278 – Viewpoint requested in JFA review. Wholly rural character, but with development appearing distantly in a slightly elevated position. Negligible impact on overall character of view.
- VP9: PRoW 279 – Wholly rural view, with development glimpsed over distance close to skyline. No discernible impact on character of view.
- VP10: PRoW KM283 – Wholly rural view, with development appearing in an elevated position on either side of central tree. No overall impact on character of view.
- VP11: Albion Road – Companion to VP1, with similar comments. Dwelling to left of Howlands is in Russet Grove. Mitigation planting of limited effect.

5.2 I would make the following observations about the visibility of the development and the effectiveness of the proposed landscaping:

- i. The appeal scheme is more widely visible than was reported in the LVIA;
- ii. In views from the south, this visibility reflects the sloping terrain of the site, and in some cases allows the development to form the skyline;
- iii. The existing peripheral and surrounding vegetation is the principal source of mitigation, with visibility confined to locations where the development would be seen above this or through gaps;

- iv. The proposed landscaping adds materially to this mitigation only where trees provide screening in close-range views;
- v. Views from the Copper Lane boundary (VP4) would remain substantially open, highlighting the relative absence of structural landscaping in this location; and
- vi. Whilst the settlement edge would be kept back from this boundary, it would be seen to advance towards the viewer (and the countryside to the south). The need to introduce infrastructural features would not allow this part of the site to be kept free from development, and would limit the opportunities to provide further structural landscaping at the Reserved Matters stage.

5.3 These comments validate the concerns raised in my main evidence.

6. Comments on Mr Tomes' Review of the Policy LPRSA295 Conditions

6.1 Mr Tomes' summary table is a new document, and provides a useful comparison with the review set out in Section 6 of my main evidence. The following paragraphs comment on whether I agree with his assessment of compliance with Conditions 4, 5, 9, 10, 11 and 12.

Condition 4

6.2 The requirement is to keep this area "free of development", not free of residential development, as Mr Tomes has assumed. The location of an emergency access, attenuation basin and pumping station on this part of the site is not compliant with the condition.

6.3 The requirement is for the provision of new landscaping to mitigate views from the south. However, the appeal scheme prioritises the provision of open space. The modelled view for VP4 confirms the degree to which this openness would maintain visibility between Copper Lane and the new settlement edge created by the appeal scheme.

6.4 Part of this openness results from the location and scale of the attenuation basin, which confines tree planting to its margins and to the green space to

the north. As noted in Section 1, the basin has also required additional tree loss, together with the hedgerow removal associated with the emergency access. Whilst some screening is achieved, the proposed planting mainly comprises individual trees, which have a limited ability to “soften and break views”, in comparison with the existing vegetation around the ponds.

- 6.5 As a result, I remain of the opinion that the appeal scheme does not comply with this condition, as set out in my main evidence.

Condition 5

- 6.6 Whilst I agree that there is no obvious evidence of substantial cut slopes or retaining structures, my reservations about the evidence base for compliance with this condition remains.

Condition 9

- 6.7 I address the role of the “strategic proposed planting” shown on the Green Infrastructure Plan, and whether it amounts to the “structural landscaping...required throughout the site”, in Section 2. My reservations about the effectiveness of this planting – as a series of individual trees, most of which would be embedded within built development - appear to be confirmed by the verified views.

- 6.8 These indicate that most mitigation would continue to rely on the existing vegetation around the site perimeter and its surroundings – see, for example, VP2. The proposed planting is influential only where there are close-range views into the site - as at VPs 1 and 4. In addition, I do not understand Mr. Tomes’ reference to the SUDs features, since the OLEMP confirms that these would be open swales sown with a wildflower mix, and would therefore provide limited screening.

Condition 10

- 6.9 Whilst Mr Tomes refers to “opportunities” for structural landscaping along the south edge, the Green Infrastructure Plan indicates either that these are limited, or that they have not been taken up, presumably in order to prioritize open space.

- 6.10 I have already commented on the spatial limitations within this part of the site, and on the substantial degree of openness that is shown to be retained from VP4. This is precisely the sort of “view from the south” that this Condition seeks to “soften and break up”, which the planting does to only a limited degree.
- 6.11 Reference is also made to the areas of retained orchard and to bulking out the hedgerow along Copper Lane. However, the former does not qualify as structural planting, whilst the latter is constrained by its roadside location, including the need to retain sightlines for the emergency access. My reservations about compliance with this Condition remain.

Condition 11

- 6.12 I have addressed the beneficial role of “reinforced planting”, as shown on the Green Infrastructure Plan, in Section 2, and am able to confirm the Medium/High degree of compliance with this Condition reported in my main evidence.

Condition 12

- 6.13 Whilst impact on the setting of the High Weald national landscape has not formed part of the Council’s refusal, Mr Tomes’ confirmation that this would be addressed at Reserved Matters is welcome. The only point I would note is the potential visibility of the development, as shown in the verified views, from locations within the countryside to the south – which broadly corresponds to that setting (even if not actually co-visible with the NL itself).

7. Summary and Conclusion

- 7.1 The supplementary material provides some useful updates and clarifications. The verified photography and visualizations are particularly welcome – notwithstanding the concerns raised by Mr Spence. Overall, however, this material confirms the areas of compliance and non-compliance with the LPRSA295 conditions identified in my main evidence.
- 7.2 The aspects of most concern relate to the spatial limitations on structural landscaping and the failure to keep the sensitive southern part of the site

free from development. Assuming that the illustrative layout remains unchanged, neither of these concerns is capable of being addressed to a material degree at the Reserved Matters stage. My reservations about the appeal scheme therefore remain.

APPENDIX A
Technical Audit of Visual Material
by MSenvision

Land East of Albion Road and North of Copper Lane, Marden

Technical Review Undertaken by Michael Spence BA(Hons), MLD, CMLI, REIA, FRGS

Introduction

Mike Spence is founder of MSEnvision Ltd, an independent company providing confidence in ZTV, photography and visualisation work. Mike was one of the technical authors behind the Landscape Institute's TGN06/19 and worked for SNH (now NatureScot) on their windfarm visualisation guidance in 2015, and most recently in 2023. He worked closely with the LI between 2013 and 2019 providing training and technical guidance. Since 2019, Mike has been a member of IEMA's Technical Steering Committee, the LI Technical Committee and produced a Technical Guidance Note on ZTVs for the LI.

Mike and his team at MSEnvision have produced photography, surveying, GIS support and 3D modelling for many projects since 2000. In recent years the team has worked on many residential projects across the UK.

Mike has also given evidence at many Public Inquiries and Planning Appeals, including residential developments.

His background includes working alongside SNH(NatureScot), National Trust, Historic Royal Palaces, Friends of the Earth, Historic England, English Heritage, the Environment Agency, many local authorities, and many developers. He works internationally and is a highly respected technical authority on technical photography and visualisations.

Documents Reviewed

Tomes Proof of Evidence – Figures

LVIA Supporting Information (ASLA)

Verified Photomontages: Methodology and Supporting Evidence, October 2024, Realm

Building Height Layout 22037/SK26C by OSP

Figure ASLA02

This figure contains what is referred to as a Zone of Theoretical Visibility, or ZTV. The premise of this is that it is built using GIS software to calculate the theoretical visibility of development based on landform, and then using visual buffers (such as buildings and woodland). The calculation is made using 'target points' across a site, set at the height of the proposed development. Using LIDAR DTM data theoretical visibility of an observer stood 1.6m above the LIDAR data can be easily calculated.

Alan Scott Landscape Architects (ASLA) appear to have built the model in an unusual way. Firstly, they refer to this as a 'Digitised ZTVI'. This is possibly a communication error as the ZTV is a GIS viewshed calculation using target points and observer height. Secondly rather than calculating the ZTV using purely LIDAR DTM (Digital Terrain Model) data they have introduced LIDAR DSM (Digital Surface Model) data. Whilst DSM data can be helpful in understanding heights of buildings, it isn't normally used for calculating visibility. This is because the resultant landform doesn't distinguish between the ground and buildings or woodland. It is all one surface. As a result, any calculations using DSM will show visibility on buildings and on woodland.

ASLA helpfully explain that they have used 28 'observer points'. They have used a height of 1.6m within the site. They have then set what they refer to as Target heights of 0m.

I would expect the ZTV to have target points within the site set to the height of the proposed development. For housing areas these 'Target Points' would normally be between 6 to 9.5metres. The ZTV calculation would use an observer eye height of 1.6m.

The ASLA ZTV has been limited to a radius of 2km. Whilst this distance may well be sufficient to identify close viewpoints, it may miss out more distant and potentially more sensitive viewpoints.

However, from the above critique the ZTV does not show the theoretical visibility of a development between 6 to 9.5 metres in height. It appears to show visibility of 1.6metre target for an observer lying down at ground level, with an eye height of 0metres.

The ZTV has therefore been grossly miscalculated and does not represent a basic ZTV to identify and agree viewpoints.

This ZTV should be re-calculated using height information for the development proposals, and the calculations run against a bare-earth surface with an observer height of 1.6metres, and also with visual buffers.

Figures ASLA03 to ASLA07

The viewpoint photographs provided by ASLA fail to identify the location of the development within the supplied panoramas. The panoramas are supplied at a size on an A3 sheet which fails to present any level of detail which would be seen from the viewpoint locations. Some viewpoint panoramas fail to capture the whole site in the view.

Figure ASL08

The verified photography locations plan helpfully illustrates the viewpoint locations, together with camera location coordinates.

Strangely, the single viewpoint on Albion Road has been split into two separate viewpoints, Viewpoints 1 and 11. This is just one viewpoint and should be identified as such.

Figures ASLA09 to ASLA12

The images for Viewpoint 1 supplied have been prepared by Realm. As presented by ASLA, they fail to comply with TGN06/19¹, as the images are presented far too small on an A3 sheet. Viewpoint 1 is presented to include rendered photomontages.

Figures ASLA13 to ASLA14

The images for Viewpoint 2 supplied have been prepared by Realm. As presented by ASLA, they fail to comply with TGN06/19, as the images are presented far too small on an A3 sheet. They also fail to capture the full extent of the development in the view. ASLA fail to present rendered montages, like Viewpoint 1. Housing appears to be missed off the left-hand side of the panorama.

Figures ASLA15 to ASLA16

The images for Viewpoint 3 supplied have been prepared by Realm. As presented by ASLA they fail to comply with TGN06/19, as the images are presented far too small on an A3 sheet. It is

¹ Landscape Institute (LI) Technical Guidance Note (TGN) 06/19: Visual Representation of Development Proposals, September 2019

unclear precisely where the development is situated in the view. A dashed line (AVR1) would be helpful to understand the location of the development in the view.

Figures ASLA17 to ASLA18

The images for Viewpoint 3 supplied have been prepared by Realm. As presented by ASLA they fail to comply with TGN06/19, as the images are presented far too small on an A3 sheet. It is unclear precisely where the development is situated in the view. A dashed line (AVR1) would be helpful to understand the location of the development in the view.

Figures ASLA19 to ASLA20

The images for Viewpoint 4 supplied have been prepared by Realm. As presented by ASLA they fail to comply with TGN06/19, as the images are presented far too small on an A3 sheet. They also fail to capture the full extent of the development in the view. Viewpoint 4 is presented to include rendered photomontages. Housing appears to be missed off the left-hand side of the panorama.

Figures ASLA21 to ASLA22

The images for Viewpoint 5 supplied have been prepared by Realm. As presented by ASLA they fail to comply with TGN06/19, as the images are presented far too small on an A3 sheet. It is unclear precisely where the development is situated in the view. A dashed line (AVR1) would be helpful to understand the location of the development in the view.

Figures ASLA23 to ASLA24

The images for Viewpoint 6 supplied have been prepared by Realm. As presented by ASLA they fail to comply with TGN06/19, as the images are presented far too small on an A3 sheet. It is unclear precisely where the development is situated in the view. A dashed line (AVR1) would be helpful to understand the location of the full development in the view.

Figures ASLA25 to ASLA26

The images for Viewpoint 7 supplied have been prepared by Realm. As presented by ASLA they fail to comply with TGN06/19, as the images are presented far too small on an A3 sheet. It is unclear precisely where the development is situated in the view. A dashed line (AVR1) would be helpful to understand the location of the development in the view.

This viewpoint had no view and should have either been dropped and replaced with another viewpoint, or presented as an AVR1. There was no need for a photomontage when there is no change to the view.

Figures ASLA27 to ASLA28

The images for Viewpoint 8 supplied have been prepared by Realm. As presented by ASLA they fail to comply with TGN06/19, as the images are presented far too small on an A3 sheet. It is unclear precisely where the development is situated in the view. A dashed line (AVR1) would be helpful to understand the location of the development in the view.

Figures ASLA29 to ASLA30

The images for Viewpoint 9 supplied have been prepared by Realm. As presented by ASLA they fail to comply with TGN06/19, as the images are presented far too small on an A3 sheet. It is unclear precisely where the development is situated in the view. A dashed line (AVR1) would be helpful to understand the location of the development in the view.

This viewpoint had no view and should have either been dropped and replaced with another viewpoint, or presented as an AVR1. There was no need for a photomontage when there is no change to the view.

Figures ASLA31 to ASLA34

The images for Viewpoint 10 supplied have been prepared by Realm. As presented by ASLA they fail to comply with TGN06/19, as the images are presented far too small on an A3 sheet. Viewpoint 10 is presented to include rendered photomontages. However, a dashed line (AVR1) would have been helpful to understand the location of the development in the view.

Figures ASLA35 to ASLA38

The images for Viewpoint 11 supplied have been prepared by Realm. As presented by ASLA they fail to comply with TGN06/19, as the images are presented far too small on an A3 sheet. Viewpoint 11 is presented as an extension to Viewpoint 1 to capture the full extent of development. This should be presented as a single viewpoint and not split into Viewpoints 1 and 11.

Figures ASLA39 to ASLA42

These images repeat previous viewpoint images. As presented by ASLA they fail to comply with TGN06/19, as the images are presented far too small on an A3 sheet.

Building Height Layout by OSP

This figure is helpful, as it illustrates the housing development units between 1, 1.5, 2 and 2.5 storey dwellings. However, no height information is provided. This raises the question as to what heights have been used within the 3D model.

The landscaping proposals contained within this layout do not appear to correspond with the landscaping used by Realm in their 3D model. For example, Viewpoint 1(&11), there is no tree planting on the left of the view as it is outwith the redline boundary. Yet new tree planting is shown.

Technical Methodology by Realm

Photography

There are many reasons why all the national guidance specifies using a 50mm lens on a full frame sensor camera. No guidance specifies wider lenses unless there is a necessity to increase the vertical field of view. For example, with tall buildings. Even the Mayor of London's London Views Management Framework specifies a 50mm lens for townscape projects. A 35mm lens should only be necessary when a development is tall in the view and a 50mm lens would not capture the vertical extents.

The camera sensor looks to be a full-frame sensor and is appropriate.

The approach to stitching images looks appropriate. It is strange, therefore, that some of the viewpoint panoramas fail to capture the full development extents.

Camera Matching

The use of 3DStudio means that the original OSGB36 co-ordinate system has been re-projected to the origin. Whilst this is not necessarily a problem, it introduces potential human error into the modelling and camera matching.

Recommended Viewing Distances

The panoramas are presented far too small on an A3 sheet to achieve a viewing distance of 525mm. At A3 size the 140 degree panoramas as presented can only achieve a viewing distance of 164mm. This size is less than one third of what LI TGN06/19 recommends. The presentation size is simply too small and lacks sufficient detail.

This fails all presentation size guidance.

View 1

The methodology mentions a photograph of the tripod location. No photograph is presented.

The points captured in the survey do not include anything on The Howlands. Capturing points on the ridge line and eaves of this building would have been more helpful than some of the vegetation captured in the view at ground level.

The data supplied on the images includes 'Equirectangular Projection'. This projection is effectively the inner face of a sphere. It also mentions 'Spherical Panorama' with Field of View override.

The panorama is constructed by stitching planar images together to create a cylindrical projection image. This is not the same as equirectangular.

The lens used is a 35mm lens. A 50mm lens should have been used. The resultant images have a lot of sky present above the 3D model buildings, which is unnecessary. It makes the development appear 'further away' than necessary.

The image presents a 'screen grab of calculated horizon line'. It is standard practice to use LIDAR DTM data, or site topo data, to create a landform which matches the photograph. The 'calculated horizon line' has no meaning as the photograph includes earth's curvature, the 3D model horizon line does not.

The 3D model views are helpful, but there is no tree planting proposed on the left or right of the render according to ASLA44 Appeal Scheme Illustrative GI Plan - just a hedgerow and existing trees.

Just one tree is present on the southern side of the access track in the 3D model render, whilst 3 trees appear to be proposed according to the ASLA44 Appeal Scheme Illustrative GI Plan.

View 1 appears to also be the same as View 11. It is not clear why Realm has split this into two separate views, when it is clearly one viewpoint.

View 2

The methodology mentions a photograph of the tripod location. No photograph is presented.

This view fails to capture the full development extents in the panorama. The panorama should be swung round to the left to capture where the site meets Albion Road.

The data supplied on the images includes 'Equirectangular Projection'. This projection is effectively the inner face of a sphere. It also mentions 'Spherical Panorama' with Field of View override.

The panorama is constructed by stitching planar images together to create a cylindrical projection image. This is not the same as equirectangular.

The lens used is a 35mm lens. A 50mm lens should have been used. The resultant images have a lot of sky present above the 3D model buildings, which is unnecessary.

The image presents a 'screen grab of calculated horizon line'. It is standard practice to use LIDAR DTM data, or site topo data, to create a landform which matches the photograph. The calculated horizon line has no meaning.

View 3

The methodology mentions a photograph of the tripod location. No photograph is presented.

The data supplied on the images includes 'Equirectangular Projection'. This projection is effectively the inner face of a sphere. It also mentions 'Spherical Panorama' with Field of View override.

The panorama is constructed by stitching planar images together to create a cylindrical projection image. This is not the same as equirectangular.

The lens used is a 35mm lens. A 50mm lens should have been used. The resultant images have a lot of sky present above the close 3D model buildings, which is unnecessary.

The image presents a 'screen grab of calculated horizon line'. It is standard practice to use LIDAR DTM data, or site topo data, to create a landform which matches the photograph. The calculated horizon line has no meaning.

View 4

The methodology mentions a photograph of the tripod location. No photograph is presented.

This view fails to capture the full development extents in the panorama. The full panorama should be presented to illustrate the full development site.

The data supplied on the images includes 'Equirectangular Projection'. This projection is effectively the inner face of a sphere. It also mentions 'Spherical Panorama' with Field of View override.

The panorama is constructed by stitching planar images together to create a cylindrical projection image. This is not the same as equirectangular.

The lens used is a 35mm lens. A 50mm lens should have been used. The resultant images have a lot of sky present above the close 3D model buildings, which is unnecessary.

The image presents a 'screen grab of calculated horizon line'. It is standard practice to use LIDAR DTM data, or site topo data, to create a landform which matches the photograph. The calculated horizon line has no meaning.

View 5

The methodology mentions a photograph of the tripod location. No photograph is presented.

The data supplied on the images includes 'Equirectangular Projection'. This projection is effectively the inner face of a sphere. It also mentions 'Spherical Panorama' with Field of View override.

The panorama is constructed by stitching planar images together to create a cylindrical projection image. This is not the same as equirectangular.

The lens used is a 35mm lens. A 50mm lens should have been used. The resultant images have a lot of sky present above the close 3D model buildings, which is unnecessary.

The image presents a 'screen grab of calculated horizon line'. It is standard practice to use LIDAR DTM data, or site topo data, to create a landform which matches the photograph. The calculated horizon line has no meaning.

View 6

The methodology mentions a photograph of the tripod location. No photograph is presented.

The data supplied on the images includes 'Equirectangular Projection'. This projection is effectively the inner face of a sphere. It also mentions 'Spherical Panorama' with Field of View override.

The panorama is constructed by stitching planar images together to create a cylindrical projection image. This is not the same as equirectangular.

The lens used is a 35mm lens. A 50mm lens should have been used. The resultant images have a lot of sky present above the close 3D model buildings, which is unnecessary.

The image presents a 'screen grab of calculated horizon line'. It is standard practice to use LIDAR DTM data, or site topo data, to create a landform which matches the photograph. The calculated horizon line has no meaning.

View 7

The methodology mentions a photograph of the tripod location. No photograph is presented.

The data supplied on the images includes 'Equirectangular Projection'. This projection is effectively the inner face of a sphere. It also mentions 'Spherical Panorama' with Field of View override.

The panorama is constructed by stitching planar images together to create a cylindrical projection image. This is not the same as equirectangular.

The lens used is a 35mm lens. A 50mm lens should have been used. The resultant images have a lot of sky present above the close 3D model buildings, which is unnecessary.

The image presents a 'screen grab of calculated horizon line'. It is standard practice to use LIDAR DTM data, or site topo data, to create a landform which matches the photograph. The calculated horizon line has no meaning.

View 8

The methodology mentions a photograph of the tripod location. No photograph is presented.

The data supplied on the images includes 'Equirectangular Projection'. This projection is effectively the inner face of a sphere. It also mentions 'Spherical Panorama' with Field of View override.

The panorama is constructed by stitching planar images together to create a cylindrical projection image. This is not the same as equirectangular.

The lens used is a 35mm lens. A 50mm lens should have been used. The resultant images have a lot of sky present above the close 3D model buildings, which is unnecessary.

The image presents a 'screen grab of calculated horizon line'. It is standard practice to use LIDAR DTM data, or site topo data, to create a landform which matches the photograph. The calculated horizon line has no meaning.

View 9

The methodology mentions a photograph of the tripod location. No photograph is presented.

The data supplied on the images includes 'Equirectangular Projection'. This projection is effectively the inner face of a sphere. It also mentions 'Spherical Panorama' with Field of View override.

The panorama is constructed by stitching planar images together to create a cylindrical projection image. This is not the same as equirectangular.

The lens used is a 35mm lens. A 50mm lens should have been used. The resultant images have a lot of sky present above the close 3D model buildings, which is unnecessary.

The image presents a 'screen grab of calculated horizon line'. It is standard practice to use LIDAR DTM data, or site topo data to create a landform which matches the photograph. The calculated horizon line has no meaning.

View 10

The methodology mentions a photograph of the tripod location. No photograph is presented.

The data supplied on the images includes 'Equirectangular Projection'. This projection is effectively the inner face of a sphere. It also mentions 'Spherical Panorama' with Field of View override.

The panorama is constructed by stitching planar images together to create a cylindrical projection image. This is not the same as equirectangular.

No lens information is provided.

The image presents a 'screen grab of calculated horizon line'. It is standard practice to use LIDAR DTM data, or site topo data, to create a landform which matches the photograph. The calculated horizon line has no meaning.

View 11

The methodology mentions a photograph of the tripod location. No photograph is presented.

The points captured in the survey do not include anything on The Howlands or anything to the north. The points used rely purely on the points captured for Viewpoint 1, in a southerly direction.

The data supplied on the images includes 'Equirectangular Projection'. This projection is effectively the inner face of a sphere. It also mentions 'Spherical Panorama' with Field of View override.

The panorama is constructed by stitching planar images together to create a cylindrical projection image. This is not the same as equirectangular.

The lens used is a 35mm lens. A 50mm lens should have been used. The resultant images have a lot of sky present above the close 3D model buildings, which is unnecessary.

The image presents a 'screen grab of calculated horizon line'. It is standard practice to use LIDAR DTM data, or site topo data, to create a landform which matches the photograph. The calculated horizon line has no meaning.

The 3D model views are helpful, but there is no tree planting proposed on the left or right of the render according to ASLA44 Appeal Scheme Illustrative GI Plan - just a hedgerow and existing trees.

Just one tree is present on the southern side of the access track in the 3D model render, whilst 3 trees appear to be proposed according to the ASLA44 Appeal Scheme Illustrative GI Plan.

View 1 appears to also be the same as View 11. It is not clear why Realm has split this into two separate views, when it is clearly one viewpoint.

Summary and Recommendations

The ZTV prepared by ASLA is inaccurate and of little use. This should be correctly constructed and re-calculated.

Whilst the Technical Methodology supplied by Realm is helpful, there are some important issues to be clarified.

All photographs and visualisations should be presented at a consistent size. In TGN06/19 this is a 90-degree panorama on an A1 wide sheet. Realm have presented a 140 degree panorama on an A3 sheet.

The resultant images as presented by Realm are therefore not representative of the actual view on site.

Current guidance in LI TGN06/19 specifies 525mm viewing distance. Realm and ASLA have presented their images at just 164mm viewing distance.

At less than one third of the minimum recommended viewing distance all Realm images as currently presented completely fail the presentation size test.

A second concern is the lens used by Realm. Fundamentally different lenses give different effects. The wider the lens (35mm or 24mm) the further away the development appears in the panorama. However, only when there is an issue with capturing the proposed development in the vertical field of view, there is a case to be made for using the 35mm or 24mm lenses.

This was not an issue at this site. All viewpoint photograph panoramas would work using a 50mm lens. So the 50mm lens would be the natural choice for this project, rather than 35mm.

In Realm's Technical Methodology they mention that they only use the 50mm lens for long distance views. This is not the case. The point about the 50mm lens is that it captures the same level of detail as the human eye captures. It captures detail in the view, such as pylons and church spires in views which the 35mm lens may not.

Thirdly the survey work carried out by Realm appears comprehensive. However, points should have been taken on 'The Howlands' for Viewpoint 1 (11), in order to understand the relationship of this building to the proposed development.

Fourthly the 3D model has been prepared by OHP. This 3D model construction is not explained anywhere in Realm's technical methodology. We have identified a few issues with a tree being included that are not in the ASLA44 GI Plan, or missing where they should be included. But there is no explanation as to how the 3D model has been built, the ground level or the building heights used.

Fifthly, of further concern is Realm's use of the 'calculated horizon line'. It is standard practice to use LIDAR DTM data for the surrounding landform to help align the model and give confidence in how the model sits in the landscape. The 'calculated horizon line' is simply a 'line of projection' along the middle of the panorama. It does not help in any way with the understanding of how the 3D Model aligns with the photograph.

A sixth point is that some viewpoints fail to capture the full development extents. These images should be extended to include the full site.

A seventh point is that it is good practice to include both summer and winter photography for development. Some photography is from April, whilst other photography is from October. Neither of which represents winter (the most open views) or summer (the most contained views).

Year 1 visualisations should be prepared using winter photography.

Year 15 visualisations should be prepared using summer photography.

The seventh point is that 3DS Max renders should use point cylindrical projection to align with the cylindrically stitched photography.

The eighth point is that the visuals should be presented as 90 degree views on (multiple) A1 wide sheets. The site should always be centred in these views and the full site extents should be presented.

In summary, in my opinion, there are too many issues with the photography, 3D modelling and visualisations to be able to consider them reliable in understanding the impacts of the proposed development on Land East of Albion Road and North of Copper Lane, Marden on the views as currently presented. What are presented are simple 'visualisations' which cannot be relied upon for the reasons explained above.

M Spence 31 October 2024