

1.10. ESTABLISHING THE VISUAL BASELINE OF THE SITE: BASELINE ZONE OF THEORETICAL VISIBILITY, VISUAL BARRIERS, BASELINE VISUAL ENVELOPE MAPPING

This is a computer generated 3D model of the landform of the site and setting. The maps within this LVA Appendix give a pictorial representation of how the shape and form of the ground may affect views across the landscape. It is an analytical process that is an aid to understanding the possible visual effects of a development proposal. It also has been used in this study to inform the early visual baseline study - as a guide to where work on the ground should be focused.

The Zone of Theoretical Visibility (ZTV) is a specialist programme and is defined within the Guidelines for Landscape and Visual Impact Assessment as an: "Area within which a proposed development may have an influence or effect on visual amenity". ZTVs can be used to define the Visual Envelope Map. These are predictive analytical 'tools' and are only as accurate as the input data. (The industry standard is the Key TERRA-FIRMA ZTV software and this has been used in this study). The principle of the application works by a series of 'rays' plotted to radiate from a target point, or multiple points from CAD polylines, in a manner that represents hundred of section lines drawn and calculated through the mapped topography of the setting. The ZTV illustrations in this LVA give a computer representation of zones or areas that may be visible from the defined locations within the site.

The ZTVs have been mapped on the 3D OS base and then for the Local maps have been placed on the aerial photograph. For the Wider ZTV maps the OS map is used. The hedgerows along the site boundaries have been modelled as Visual Barriers. The programme enables the placement of known obstructions: trees, buildings etc in the model. These have to be carefully modelled and are placed using topographic data from the site survey or other verifiable and declared sources. The baseline ZTVs show these Visual Barriers as annotated additions to the map (Fig. 17).

The illustrations of ZTVs for the Site take no account, other for the Visual Barriers annotated on the drawings, of any other obstacle: the houses, structures, trees and hedgerows, within the extent of the Map. The computer model is based on the 3D Ordinance Survey Digital Ground Model data. The illustrations are a landform based study. The extent to which landform may affect the visual amenity is represented within the limitations of the computer software is depicted. The rays record the interruption that results from intervening high ground. Where there are no rays the site cannot be seen from an eye level vantage point of 1.60m above ground. The landform will obscure the view (Figs. 18,19,20,21).

The predicted visual situation after development is shown on separate maps: the 'After Development' drawings. On these ZTVs the height of the buildings has been assumed as 10m above ground level at a known elevation., to give a general indication of visibility, at this early stage of analysis.

In this LVA deskwork involving a detailed ZTV modelling has been used to inform the study and guide the fieldwork. The 3D ground model has been produced and then known dimensions of the boundary tree lines and hedgelines have been introduced as Visual Barriers. Informed judgements about the likely Visual Receptors Groups that may experience a change in the visual baseline after the development is implemented have also been defined. Generally, this is straightforward and logical: leisure walkers along PRoVWs, motorists along the roads and residents at home. The intention is to record a representative and appropriate record of the visual baseline and the visual receptors and their various activities. An estimation of the likely visual receptor groups that may experience a change in their visual baseline after any future development has been set out in Section 2 of this LVA. This selection process is appropriately robust and provides sufficient information to enable informed judgements to be made and to enable an informed evaluation of the development proposal.



FIGURE 17. ZONE OF THEORETICAL VISABILITY: VISUAL BARRIERS PLAN



FIGURE 18. WIDER SETTING ZTV (6KM RADIUS FROM SITE):
DEVELOPMENT PROPOSAL (WITH VISUAL BARRIERS)



FIGURE 19. WIDER SETTING ZTV (6KM RADIUS FROM SITE):
BASELINE (WITH VISUAL BARRIERS)

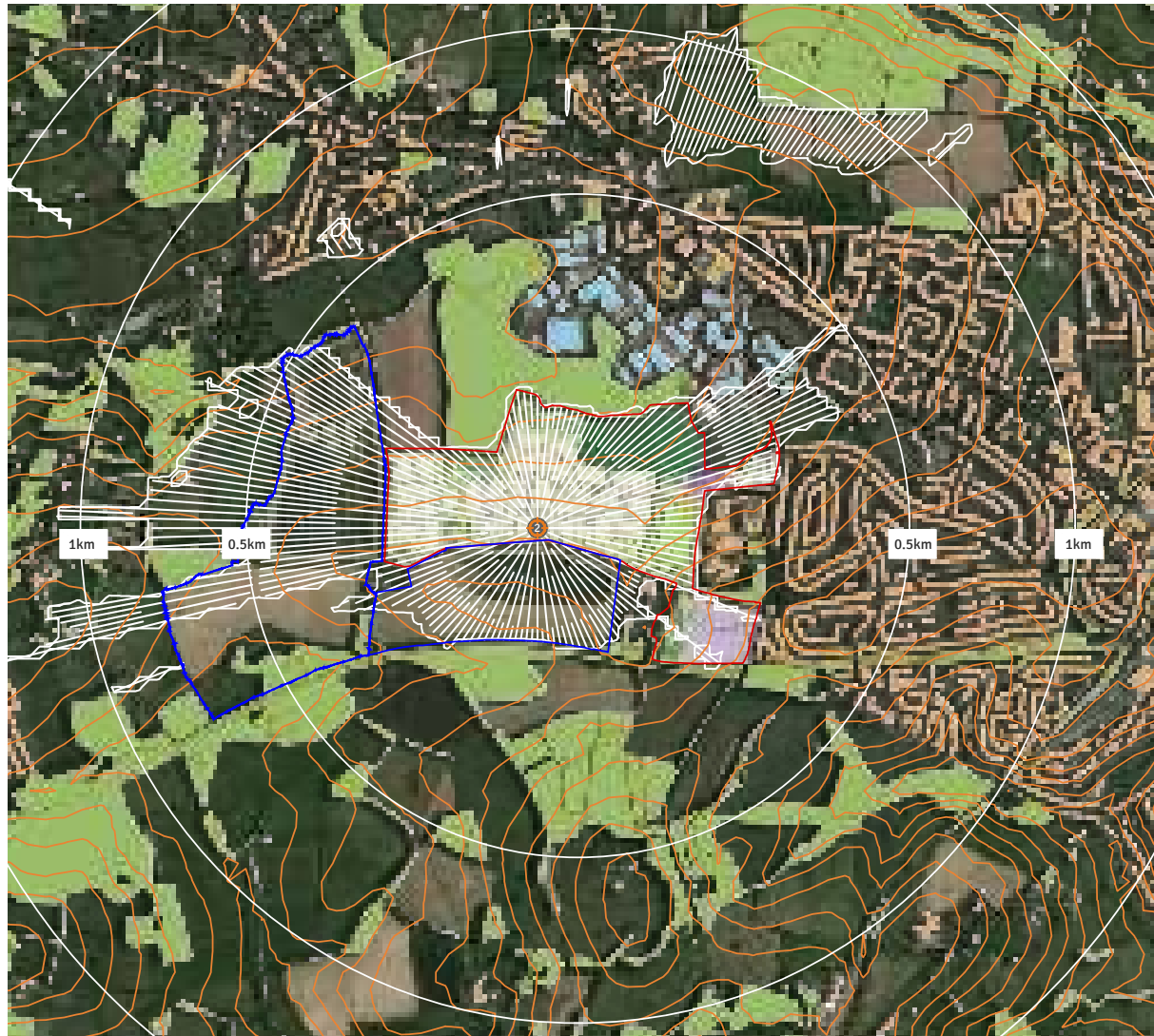


FIGURE 20. SITE SETTING ZTV (1.5KM RADIUS FROM SITE): DEVELOPMENT PROPOSAL

Boundaries



Site boundary



Land under control

ZTV Construct



Target Point 2
107.490 + 10m = 117.490
Easting 537011.432
Northing 138584.725

Visual Barriers



Woodland/Copse
modeled at 10m



Industrial units and
school modeled at 12m



Housing
modeled at 10m

ZTV Prediction



Areas of potential visibility of the
target point



Visual Envelope

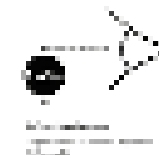


FIGURE 21. SITE SETTING ZTV (1.5KM RADIUS FROM SITE): BASELINE

1.11. LVA PHOTOGRAPHIC APPRAISAL: VIEWPOINTS AND VIEWS ON SITE AND NEAR SITE

LVA Photographic Record

Photographs 01 to 12, the locations of which are shown on Figs. 22 and 23, were taken with a Cannon EOS 6D with a standard fixed 50mm lens.

The photographs are eye level views with the camera held at approximately 1.60m above the ground.

Photomontages have been made with panoramic images taken at approximately 50% over-lap of the image. Photographs have been joined manually in Photoshop and cross checked against each process for accuracy.

Grid referenced are given for all of the photograph locations. These are not high resolution professional Visually Verified imagery ready photographs. They have been taken by Landscape Architects working on the LVA. They are selected to give a representational record of the Site and its setting.

The fieldwork was undertaken to update the winter baseline photography of the selected representative viewpoints as identified within the 2016 LVA.

Further viewpoints were selected based on the fieldwork from the winter 2020 site visit apart.

Viewpoints	Symbol Used in Figures
Updated LVA Winter 2020 Viewpoint Locations	
Additional 2020 Winter Viewpoint Locations	



FIGURE 22. PHOTO LOCATION PLAN

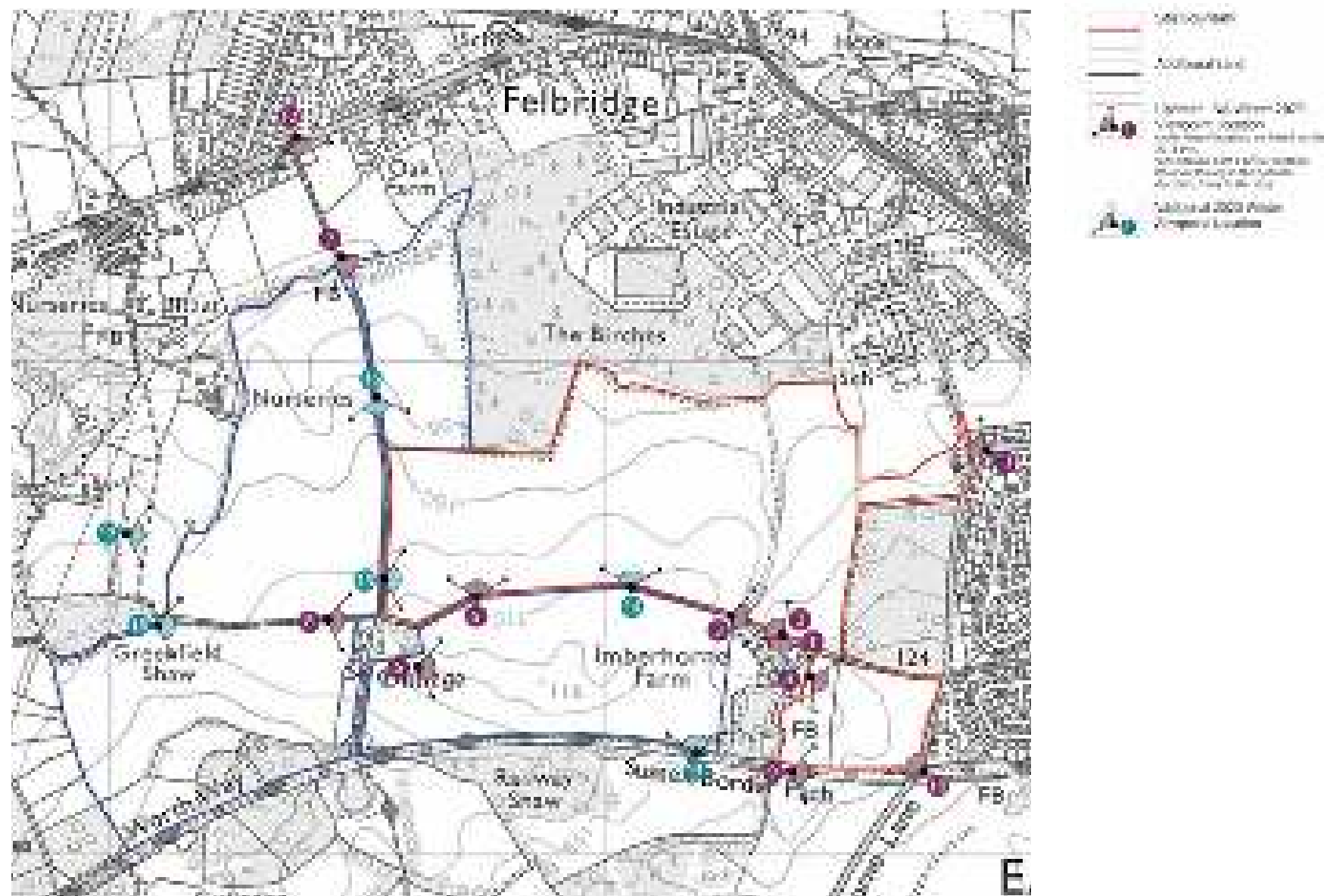


FIGURE 23. PHOTO LOCATION PLAN (OS BASE)



Viewpoint 1: On PRoW (East Grinstead 44bEG-1) looking north-east

Site Visible: Yes

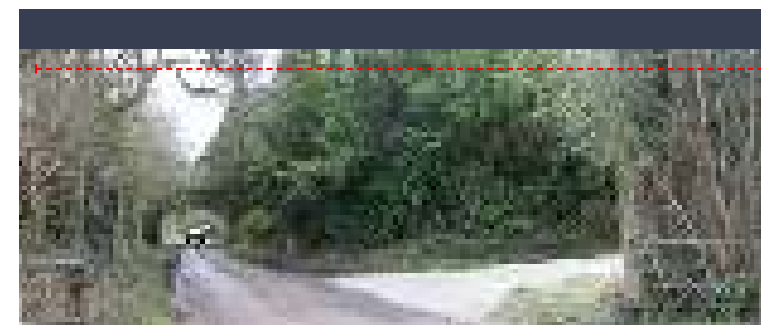
View Direction: North-east

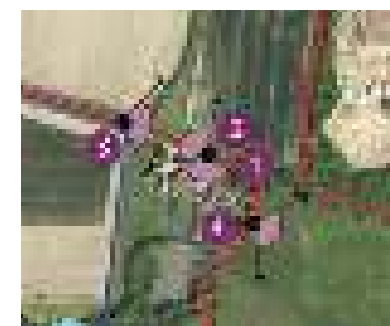
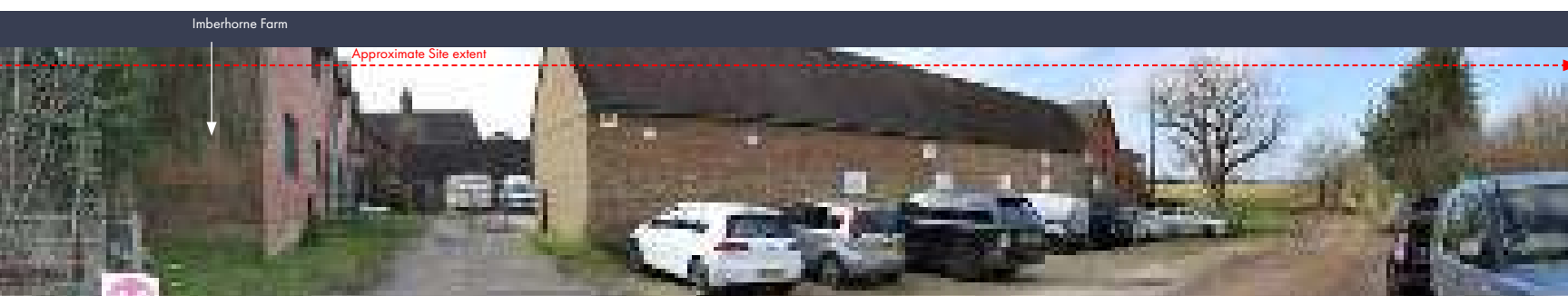
Date: 03/03/2020

Grid Reference: TQ 537368 138445

Elevation: 109m AOD

Distance to Site at nearest point: 1 m







Viewpoint 2: On PRoW (East Grinstead 44bEG-1) looking north-west

Site Visible: No

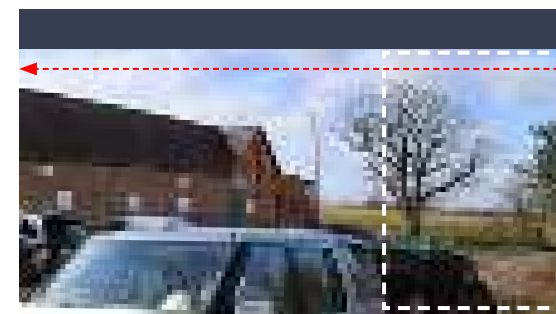
View Direction: North-west

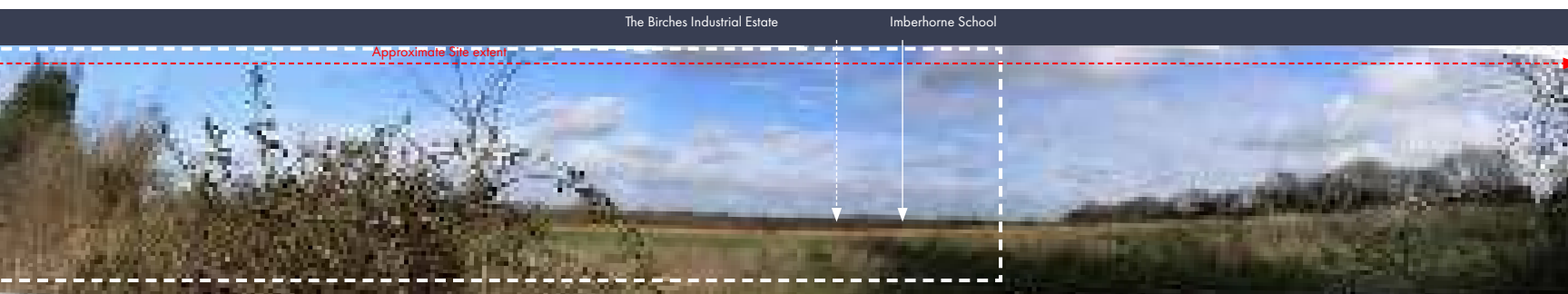
Date: 03/03/2020

Grid Reference: TQ 537368 138445

Elevation: 109m AOD

Distance to Site at nearest point: 1 m







Viewpoint 3: Near PRow (East Grinstead 44bEG-1) looking north-east towards Imberhorne School

Site Visible: Yes

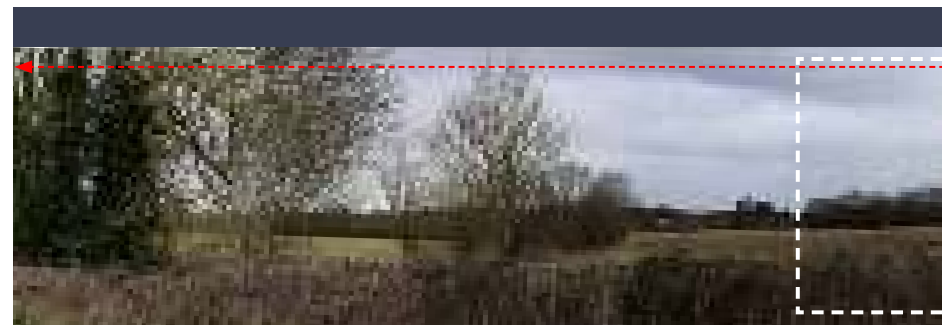
View Direction: North-east

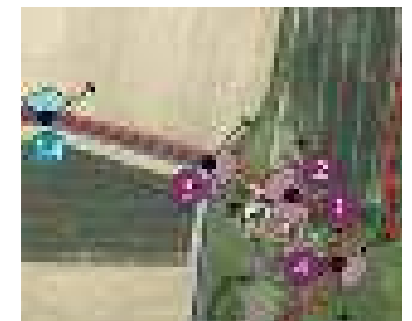
Date: 03/03/2020

Grid Reference: TQ 537285 138470

Elevation: 108m AOD

Distance to Site at nearest point: Adjoining







Viewpoint 4: Near Imberhorne Farm looking east towards Imberhorne Lane

Site Visible: No

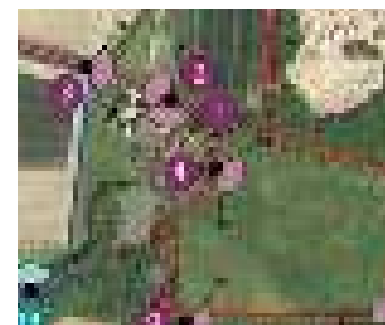
View Direction: East

Date: 03/03/2020

Grid Reference: TQ 32746 10637

Elevation: 115m AOD

Distance to Site at nearest point: On Site





Viewpoint 5: On PRow (East Grinstead 44bEG-1) looking north towards The Birches and Oak Farm

Site Visible: Yes

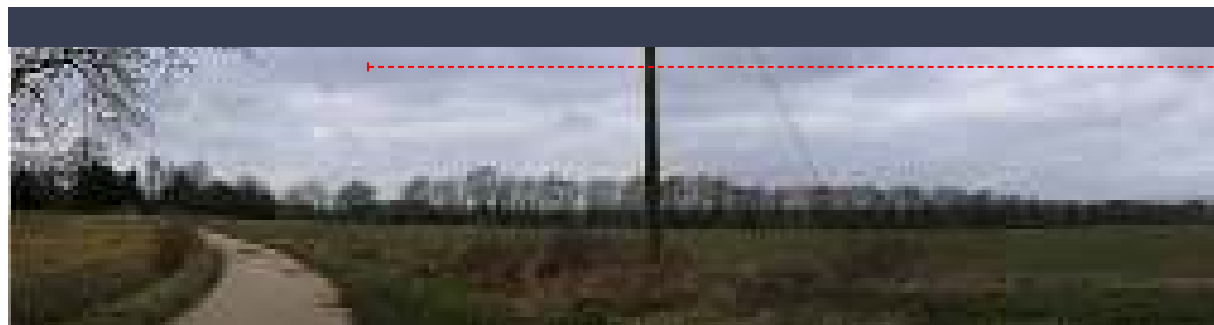
View Direction: North

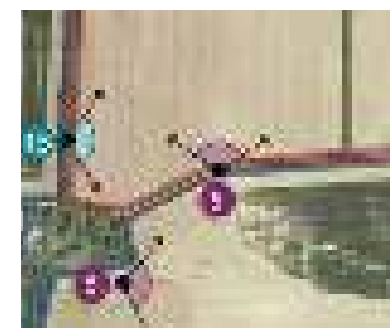
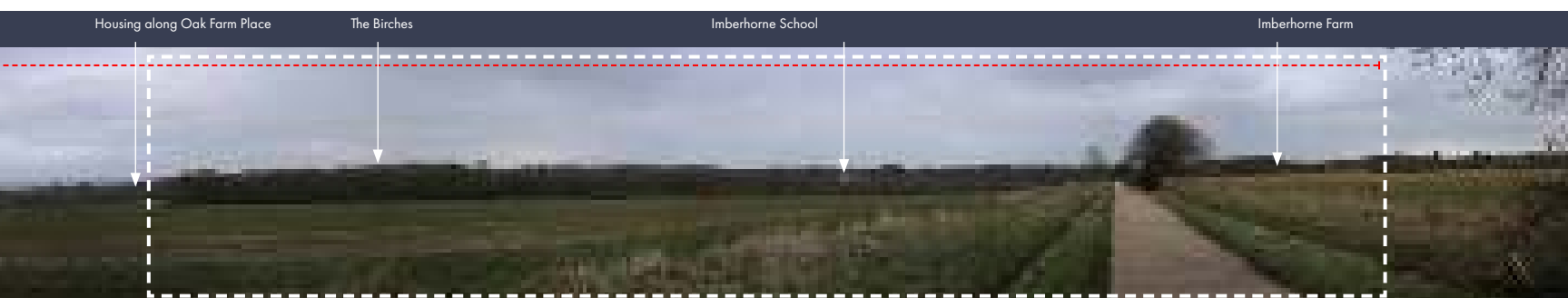
Date: 03/03/2020

Grid Reference: TQ 536753 138525

Elevation: 109m AOD

Distance to Site at nearest point: Adjoining







Viewpoint 6: Off site - Looking east towards the site

Site Visible: yes

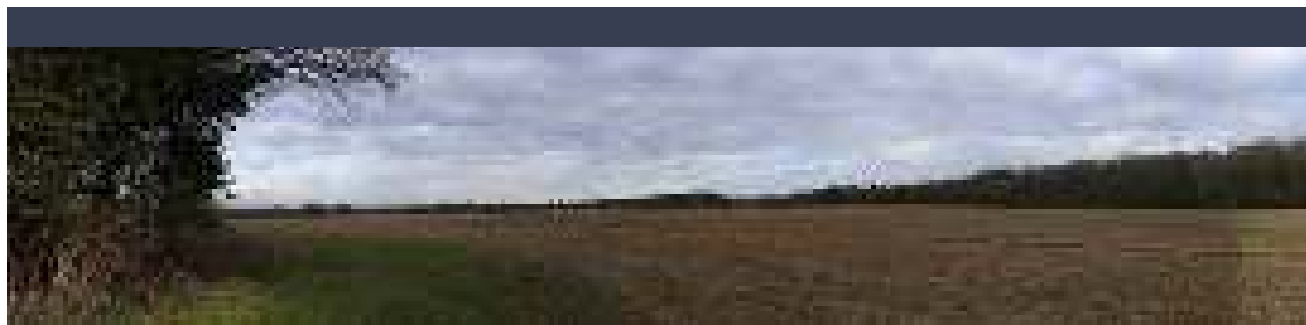
View Direction: East

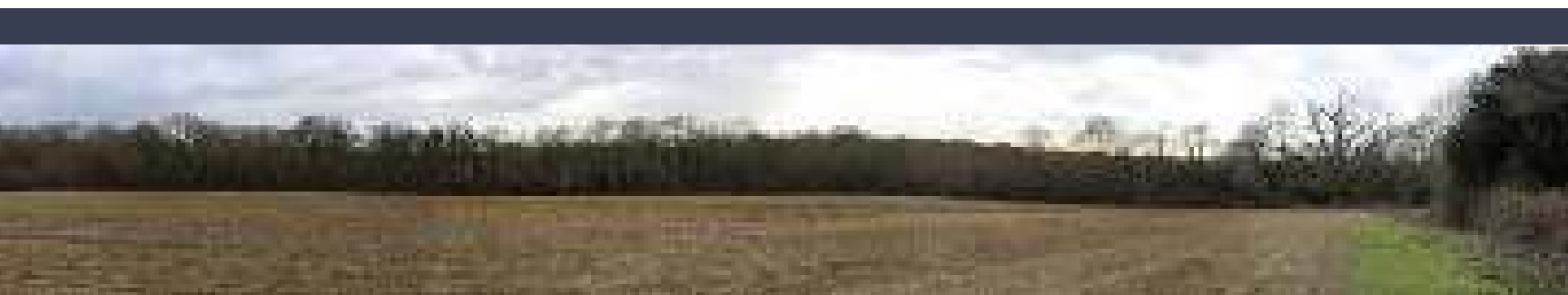
Date: 03/03/2020

Grid Reference: TQ 536627 138398

Elevation: 113m AOD

Distance to Site at nearest point: 75m







Viewpoint 7: Off site - On Bridleway (East Grinstead 40aEG-1) looking south-east towards the site

Site Visible: No

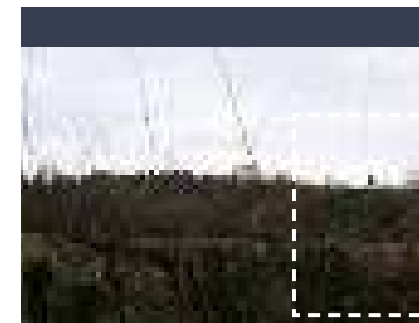
View Direction: South-east

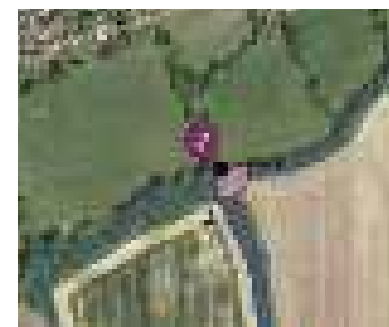
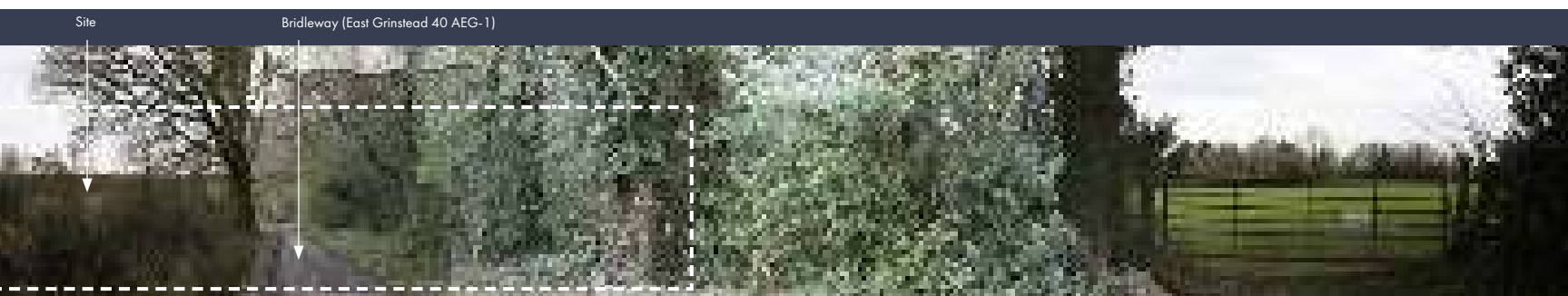
Date: 03/03/2020

Grid Reference: TQ 536430 139290

Elevation: 88m AOD

Distance to Site at nearest point: 400m







Viewpoint 8: On PRoW (East Grinstead 44bEG-1) looking east towards to Gulledge

Site Visible: Yes

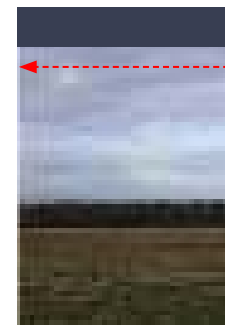
View Direction: East

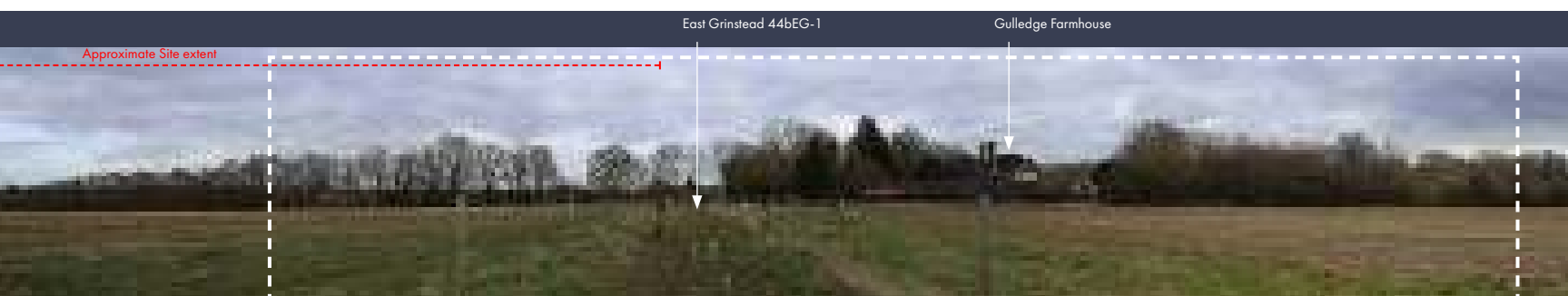
Date: 03/03/2020

Grid Reference: TQ 536409 138479

Elevation: 109m AOD

Distance to Site at nearest point: 165m







Viewpoint 9: Worth Way/Sussex border path (Cycle Way)

Site Visible: Yes

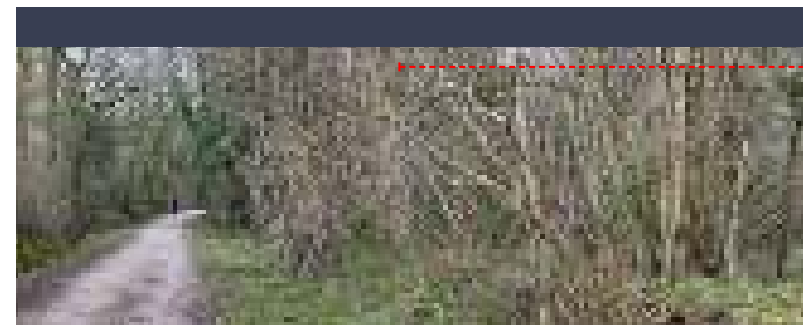
View Direction: North-east

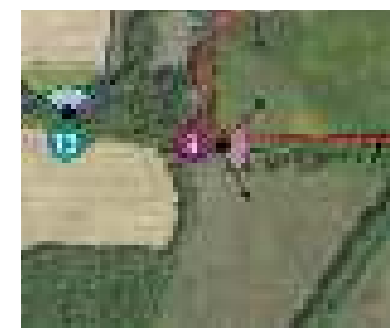
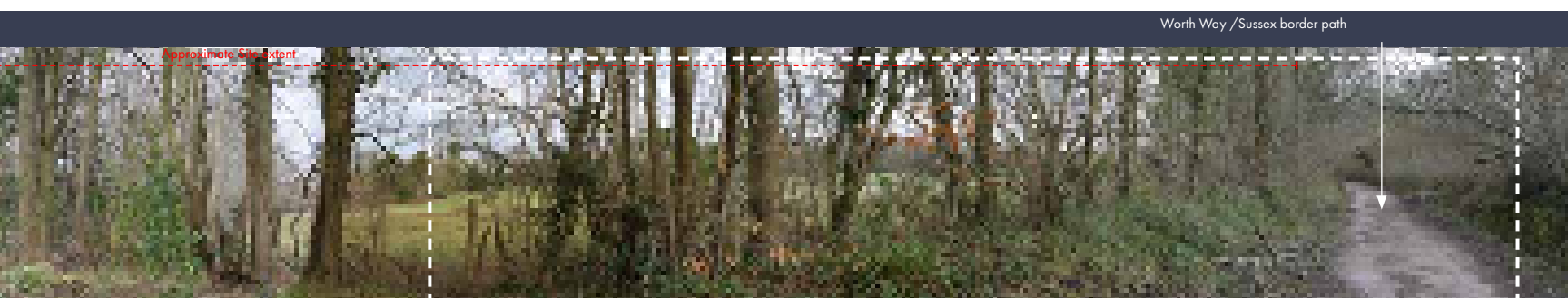
Date: 03/03/2020

Grid Reference: TQ 537385 138179

Elevation: 117m AOD

Distance to Site at nearest point: Adjoining







Viewpoint 10: Imberhorne Lane, looking north near Otterbourne Place

Site Visible: Yes

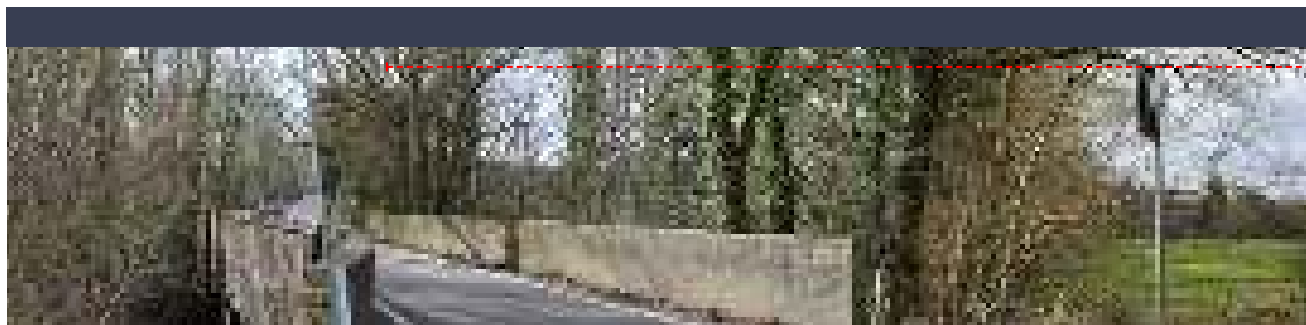
View Direction: North

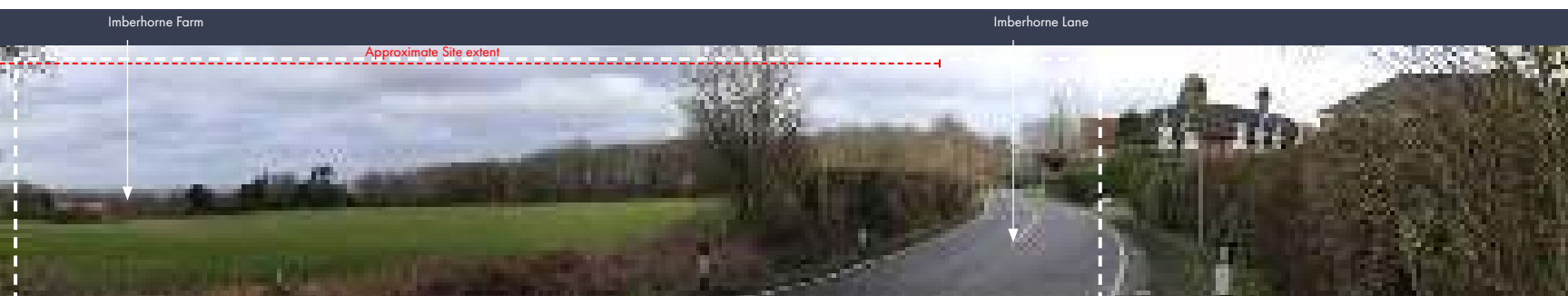
Date: 03/03/2020

Grid Reference: TQ 537637 138183

Elevation: 126m AOD

Distance to Site at nearest point: 10m







Viewpoint 11: Heathcote/Imberhorne Lane junction, looking west

Site Visible: Yes

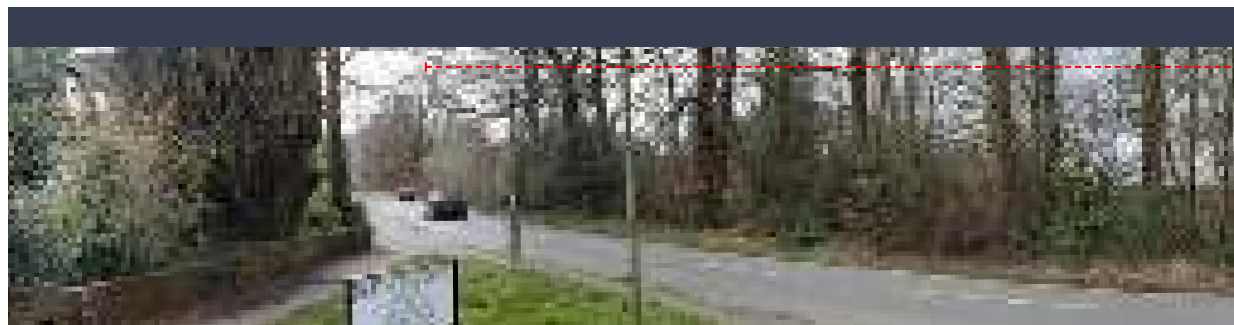
View Direction: West

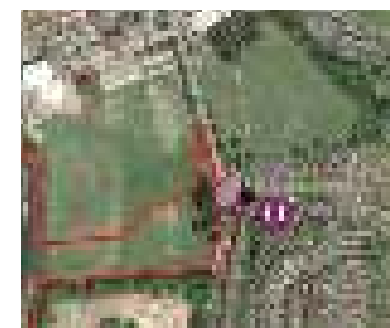
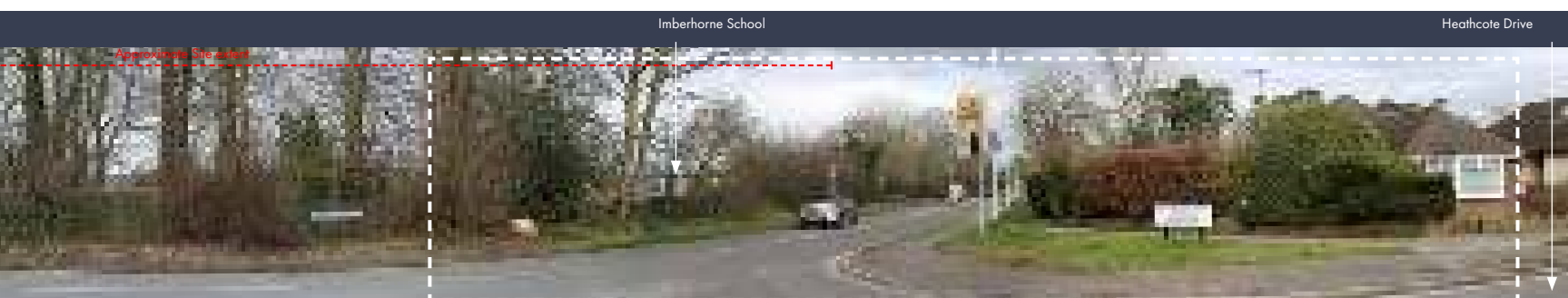
Date: 03/03/2020

Grid Reference: TQ 537697 138355

Elevation: 105m AOD

Distance to Site at nearest point: 241m







Viewpoint 12: On Crawley Down Road, looking south

Site Visible: No

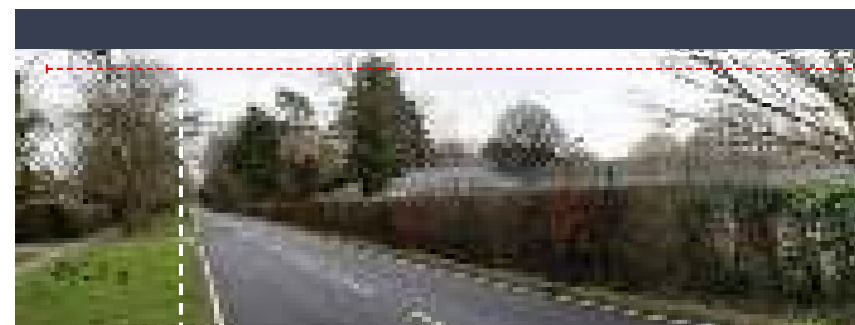
View Direction: South

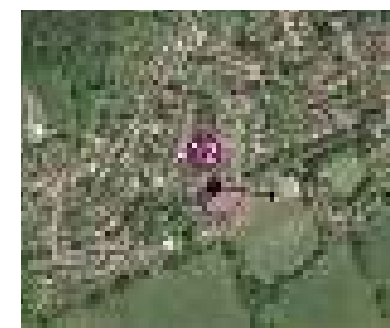
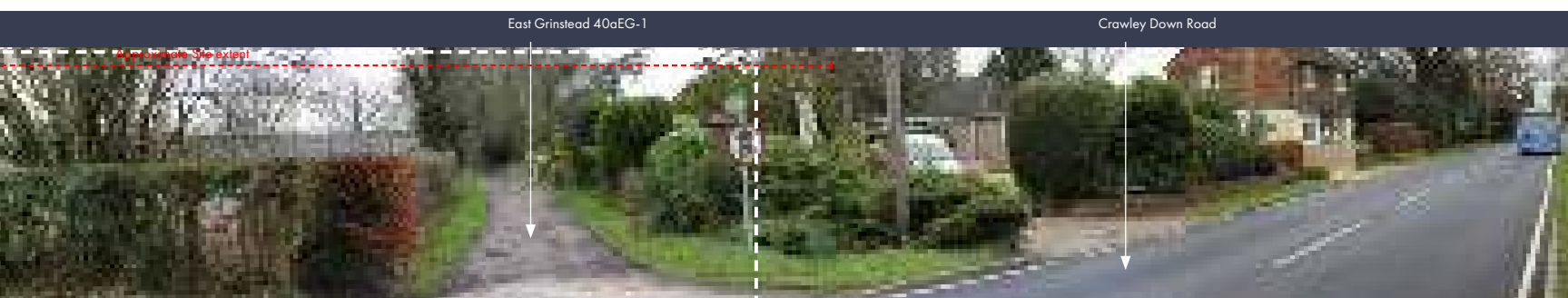
Date: 03/03/2020

Grid Reference: TQ 536372 139438

Elevation: 88m AOD

Distance to Site at nearest point: 680m







Viewpoint 13: Off site – view from long distance trail Sussex Border Path/Worth Way looking northwards towards the Site

Site Visible: No

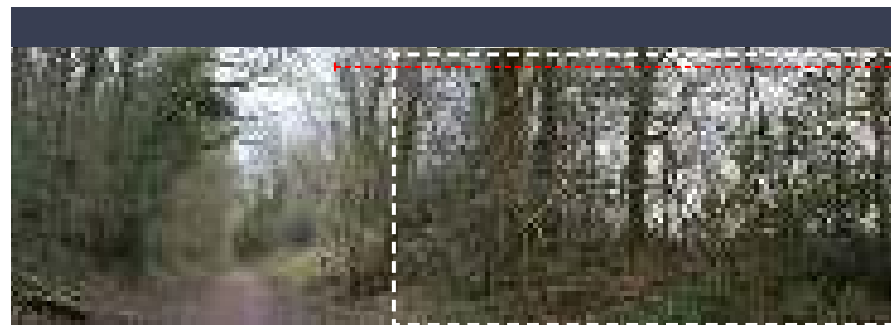
View Direction: North

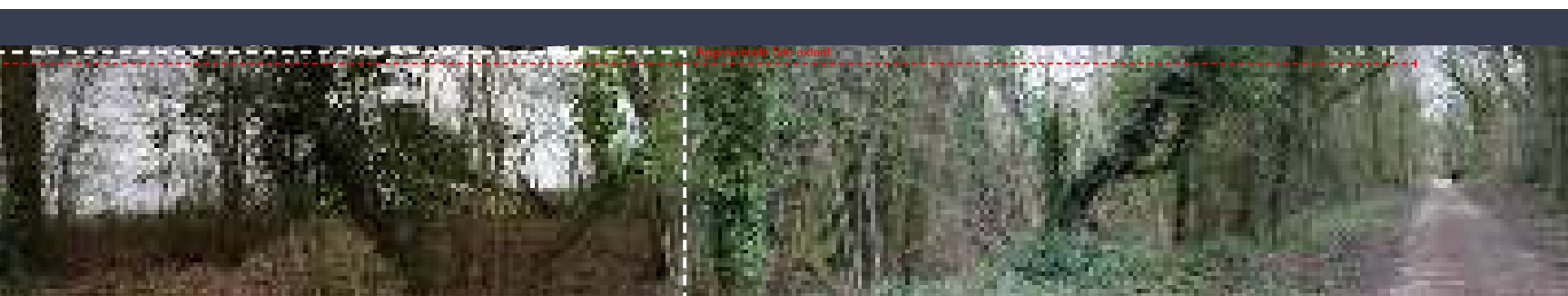
Date: 03/03/2020

Grid Reference: TQ 537190 138211

Elevation: 116m AOD

Distance to Site at nearest point: 165m







Viewpoint 14: Off site – view from PRoW 44bEG looking northwards across the Site

Site Visible: Yes

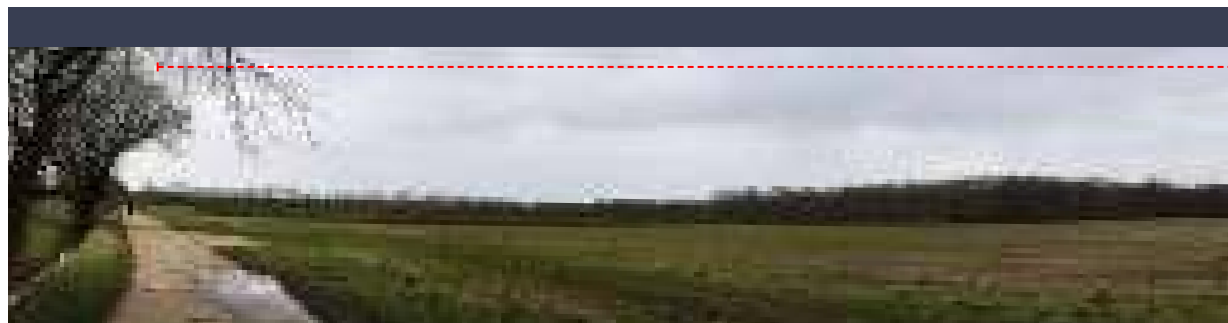
View Direction: North

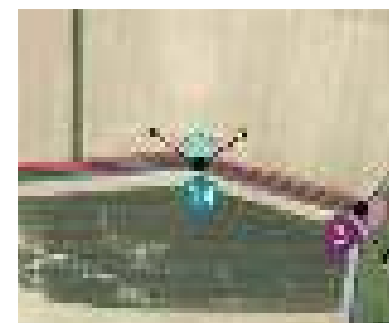
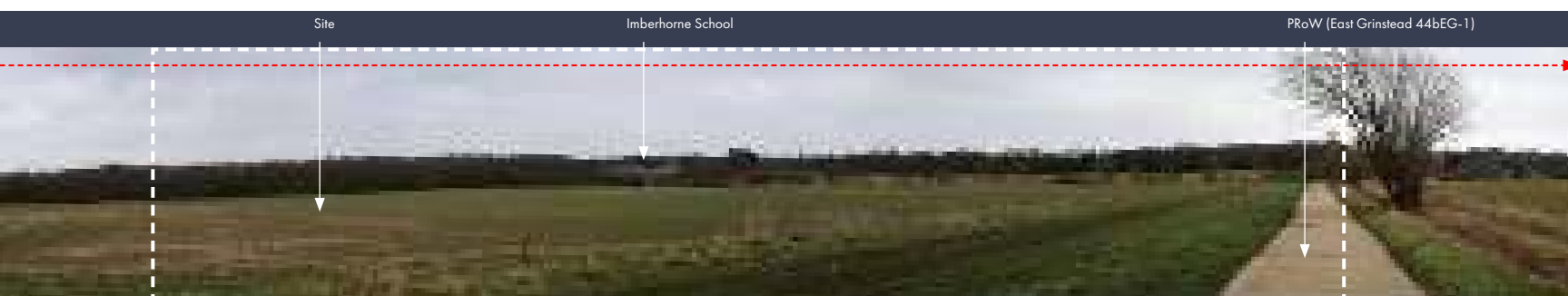
Date: 03/03/2020

Grid Reference: TQ 32746 10637

Elevation: 109m AOD

Distance to Site at nearest point: Adjoining







Viewpoint 15: Off site – view from PRoW 40aEG looking eastwards across the Site

Site Visible: Yes

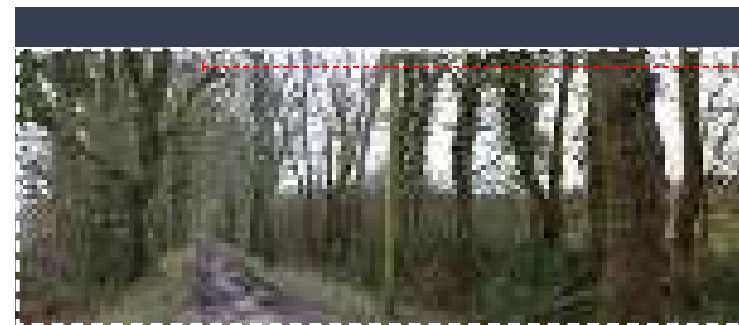
View Direction: East

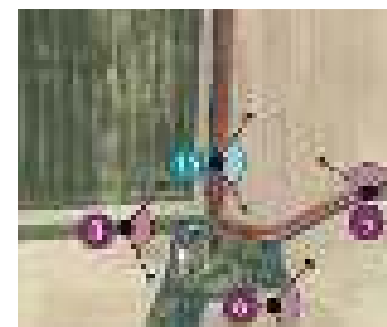
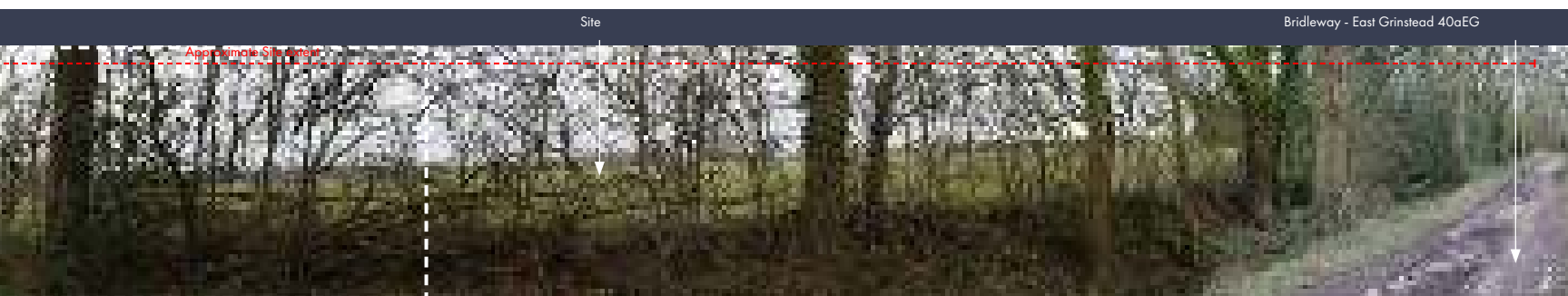
Date: 03/03/2020

Grid Reference: TQ 536556 138585

Elevation: 107m AOD

Distance to Site at nearest point: 5m







Viewpoint 16: Off site – view from PRoW 40aEG looking south-east towards the Site

Site Visible: Yes

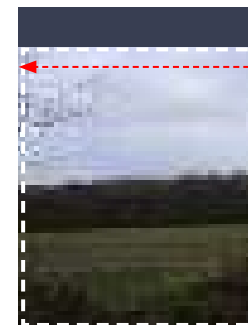
View Direction: South-east

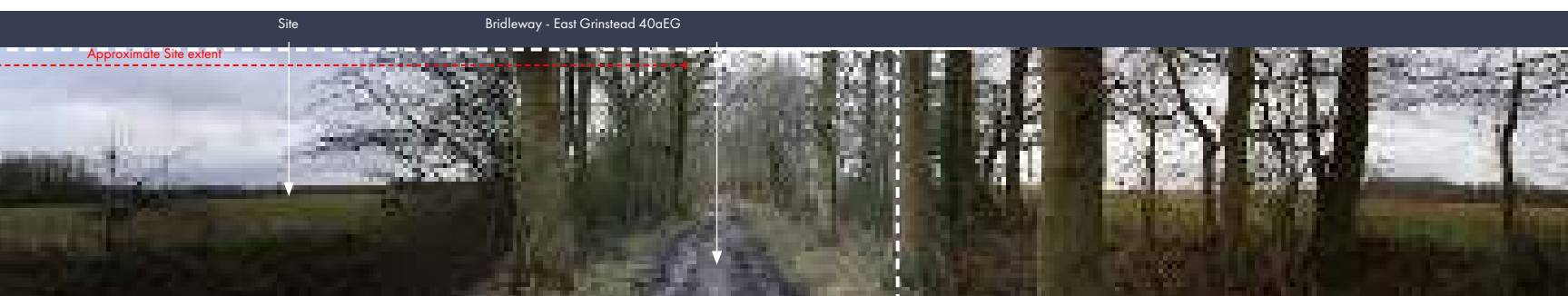
Date: 03/03/2020

Grid Reference: TQ 536541 138899

Elevation: 96m AOD

Distance to Site at nearest point: 110m







Viewpoint 17: Off site – view from PRoW 45EG looking eastwards towards the Site

Site Visible: No

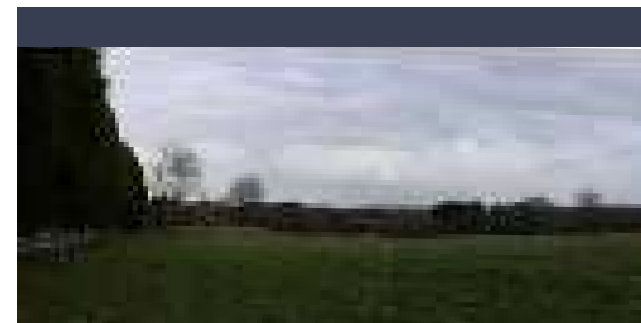
View Direction: East

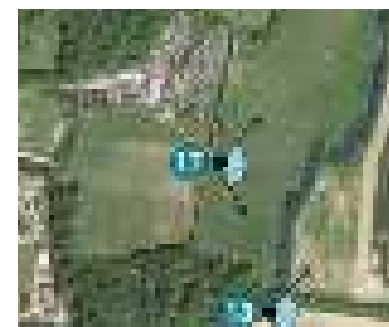
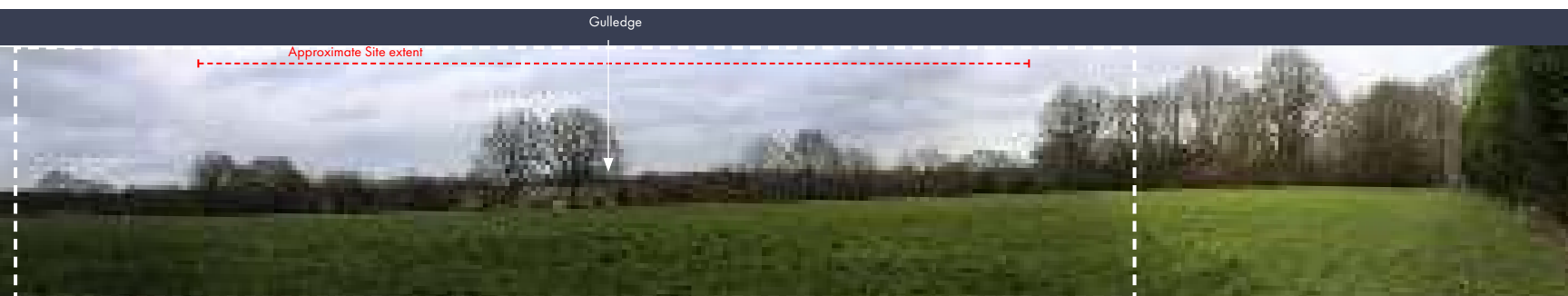
Date: 03/03/2020

Grid Reference: TQ 536019 138622

Elevation: 102m AOD

Distance to Site at nearest point: 550m







Viewpoint 18: Off site – view from the junction of PRoW 45EG and 44dEG and looking eastwards towards the Site

Site Visible: No

View Direction: East

Date: 03/03/2020

Grid Reference: TQ 536106 138466

Elevation: 102m AOD

Distance to Site at nearest point: 455m





1.12 LVA BASELINE SUMMARY: LANDSCAPE RECEPTORS

The Site's key landscape resources and attributes have include the following assets. They are also the Setting and Site Landscape Receptors that have been identified at this updated stage of LVA work:

Landscape Attributes: Setting Landscape Receptors:

- The rolling and wooded countryside at the northern edge of the
- High Weald National Character Area;
- The wooded and secluded valley along Felbridge Water;
- The rolling and wooded countryside at the northern edge of the High Weald National Character Area;
- The extensive tree cover within 2km of the Site;
- The tree lined Worth Way;
- The tree lined PRoW that link the Site to the immediate setting;
- The settlement edge location; and the
- The heritage assets at Imberhorne Farm and Gullede.

Landscape Site: Site Landscape Receptors:

- The landform of the Site land;
- The plants and animals and their habitats that the Site land supports;
- The Site boundary elements: the extensive tree cover and hedgerows;
- The tree lined PRoW's that cross the Site;
- The tree lined Drive to Imberhorne Farm; and the
- The historic and cultural actions, marks and memories associated with the human activates on the Site.

1.13 LVA BASELINE SUMMARY: VISUAL RECEPTORS

The Site's principle visual resources and attributes have been identified and described within this updated LVA. At this stage in the promotion of the Site and the development proposal the visual baseline has been defined to include the following assets and also the Visual Receptors Groups that may experience views to the Site at specific viewpoints:

Visual Receptors in the public domain will include:

- Visual Receptor Group: Walkers and riders on the PRoW across the Site

Activity: leisure based
Likely visual expectations: general countryside components
- Visual Receptor Group: Walkers and riders on the Worth Way, Sussex Border Path cycleway near the Site

Activity: leisure and possibly commuter based
Likely visual expectations: occasionally open, generally filtered or obscured views from cuttings of general countryside components and Gullede house;
- Visual Receptor Group: Walkers, riders and motorists and users of public transport along Imberhorne Lane near the Site:

Activity: journey based
Likely visual expectations: passing open views of general countryside components
- Visual Receptor Group: Walkers, riders and motorists and users of public transport along Crawley Down Road near the Site:

Activity: journey based
Likely visual expectations: glimpsed and filtered passing views of general countryside components

Visual Receptors in the private domain will include:

- Visual Receptor Group: Walkers, Pupils, staff and visitors to Imberhorne School near the Site:

Activity: in-door and outdoor school based activates
Likely visual expectations: a range of open, glimpsed and filtered views of general countryside components
- Visual Receptor Group: residents in private properties along Imberhorne Lane near the Site:

Activity: in-door and garden-based viewpoints

Likely visual expectations: a range of open, glimpsed and filtered views of general countryside components
- Visual Receptor Group: residents in private properties at the western end of Heathcote Drive near the Site:

Activity: in-door and garden-based viewpoints

Likely visual expectations: a range of open, glimpsed and filtered views of general countryside components
- Visual Receptor Group: residents in private properties within the Kingscote Way development near the Site:

Activity: in-door and garden-based viewpoints

Likely visual expectations: a range of glimpsed and filtered views of general countryside components.



ON SITE LOOKING TOWARDS IMBERHORNE FARM AND IMBERHORNE FARM COTTAGES