



PROPOSED BATTERY ENERGY STORAGE SYSTEM, ADJACENT TO THE CULHAM SCIENCE CENTRE

LANDSCAPE AND VISUAL ASSESSMENT

APPENDIX A: FIGURES APRIL 2024

PART 1

Introduction

This figure package (Appendix A) should be read in conjunction with the landscape and visual impact assessment text document for the proposed Battery Electricity Storage System (BESS) on farmland immediately to the west side of the Culham Science Centre, South Oxfordshire. The landscape and visual impact assessment forms part of the Environmental Impact Assessment for the proposed development. The application site boundary is shown on **Figures 1 and 2**.

The methodology is set out in Appendix B and this includes the criteria for determining significance.

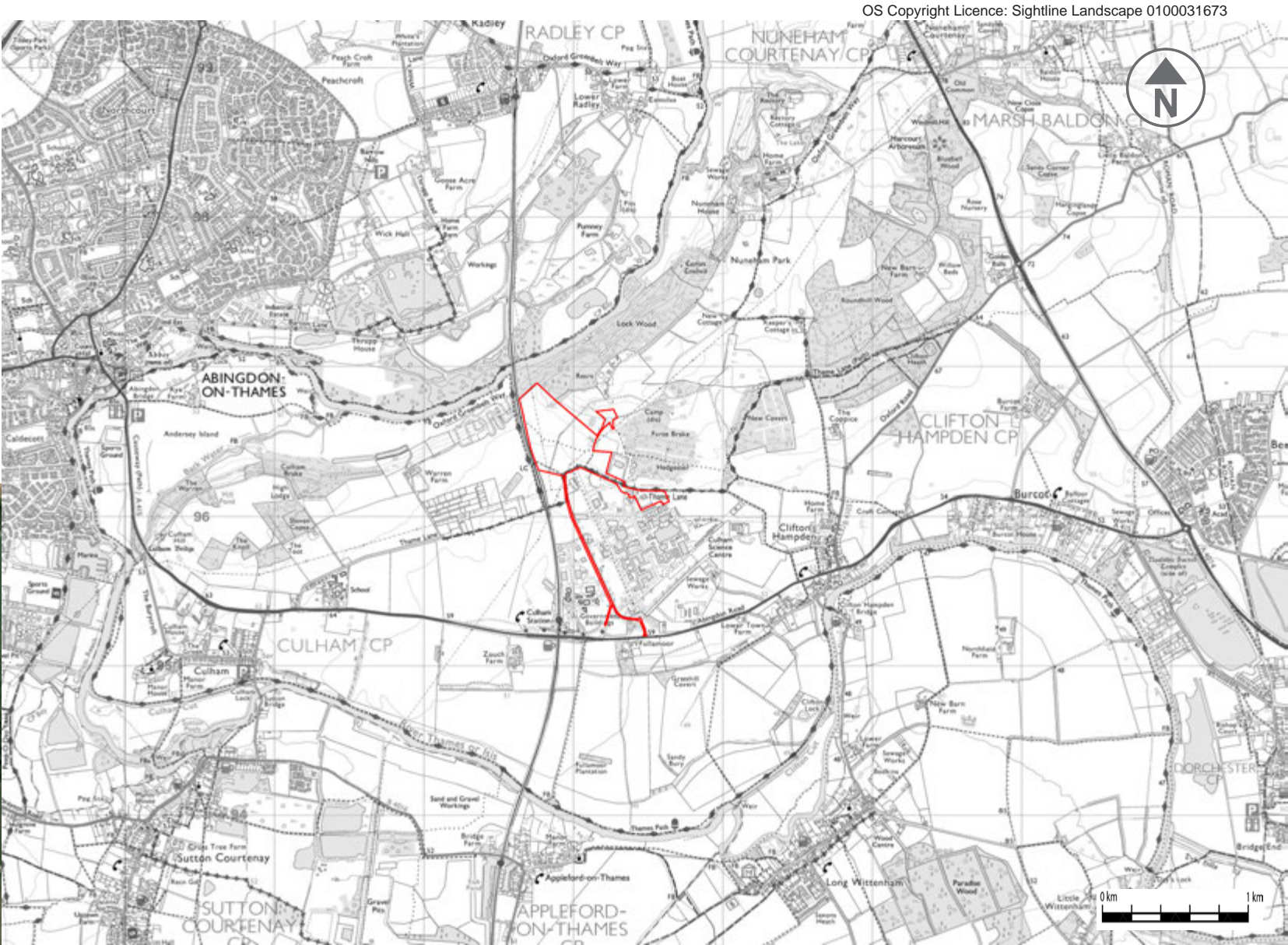
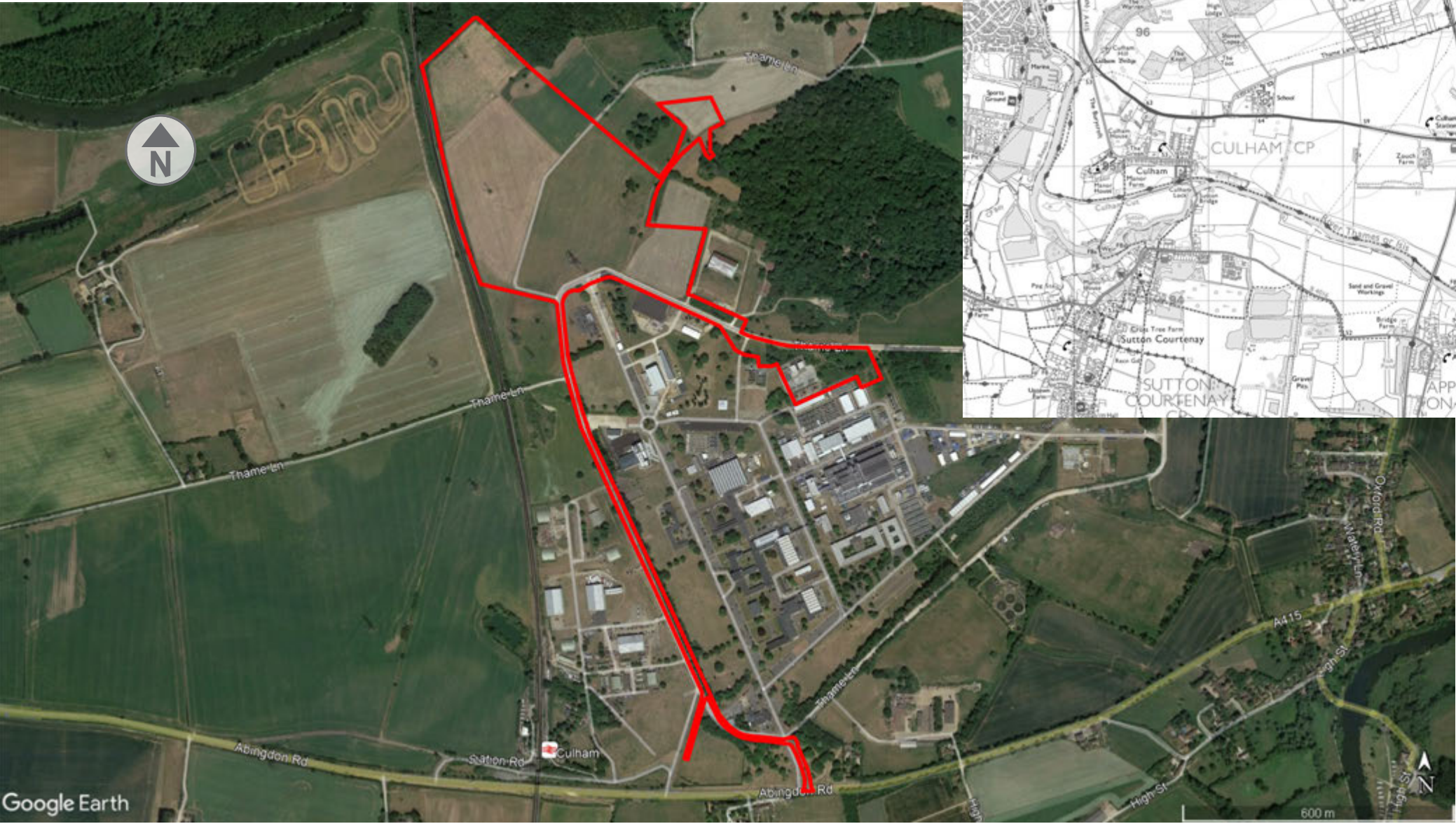


Figure 1: Location Plan

Figure 2: Aerial Plan

Figure 3: Designations

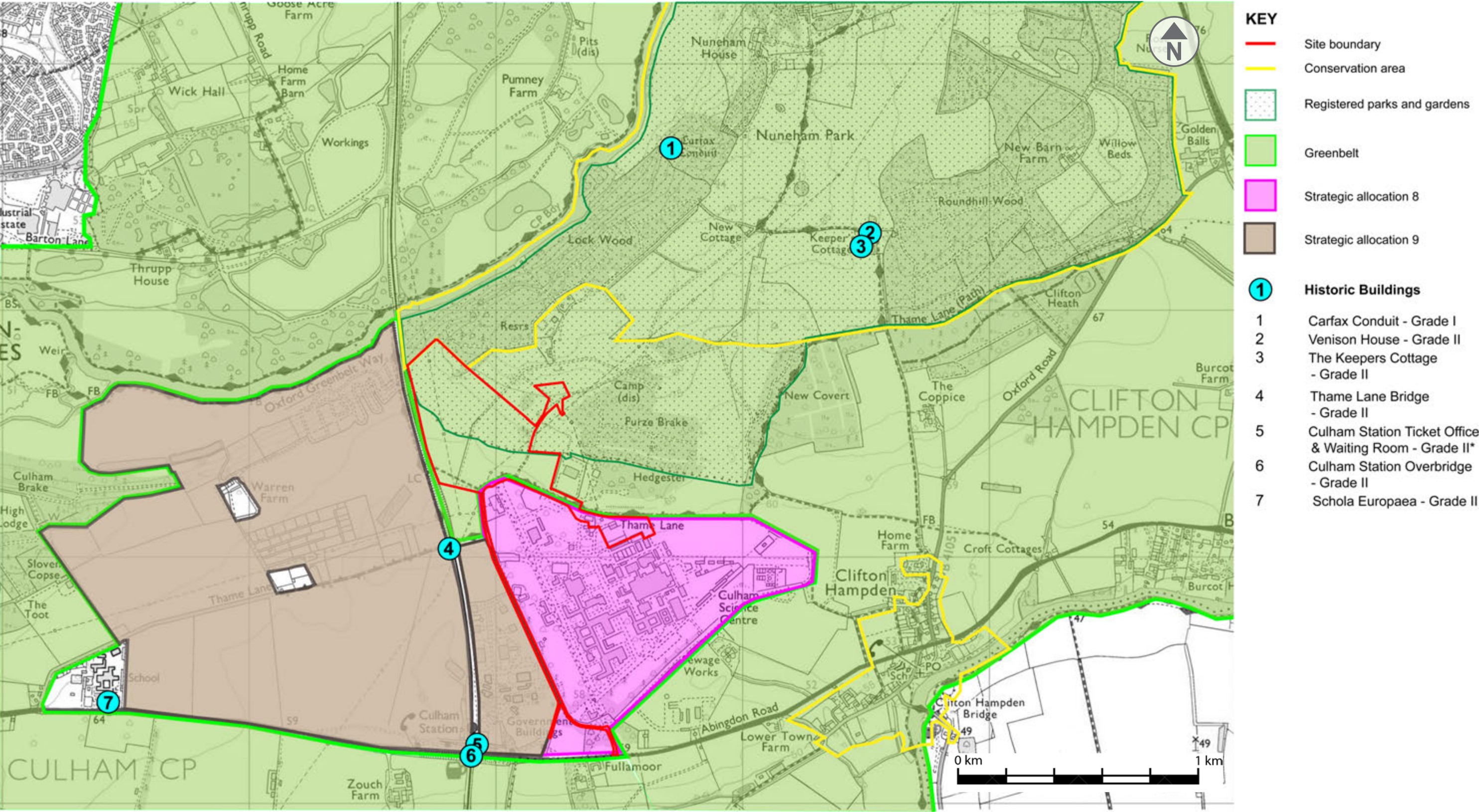
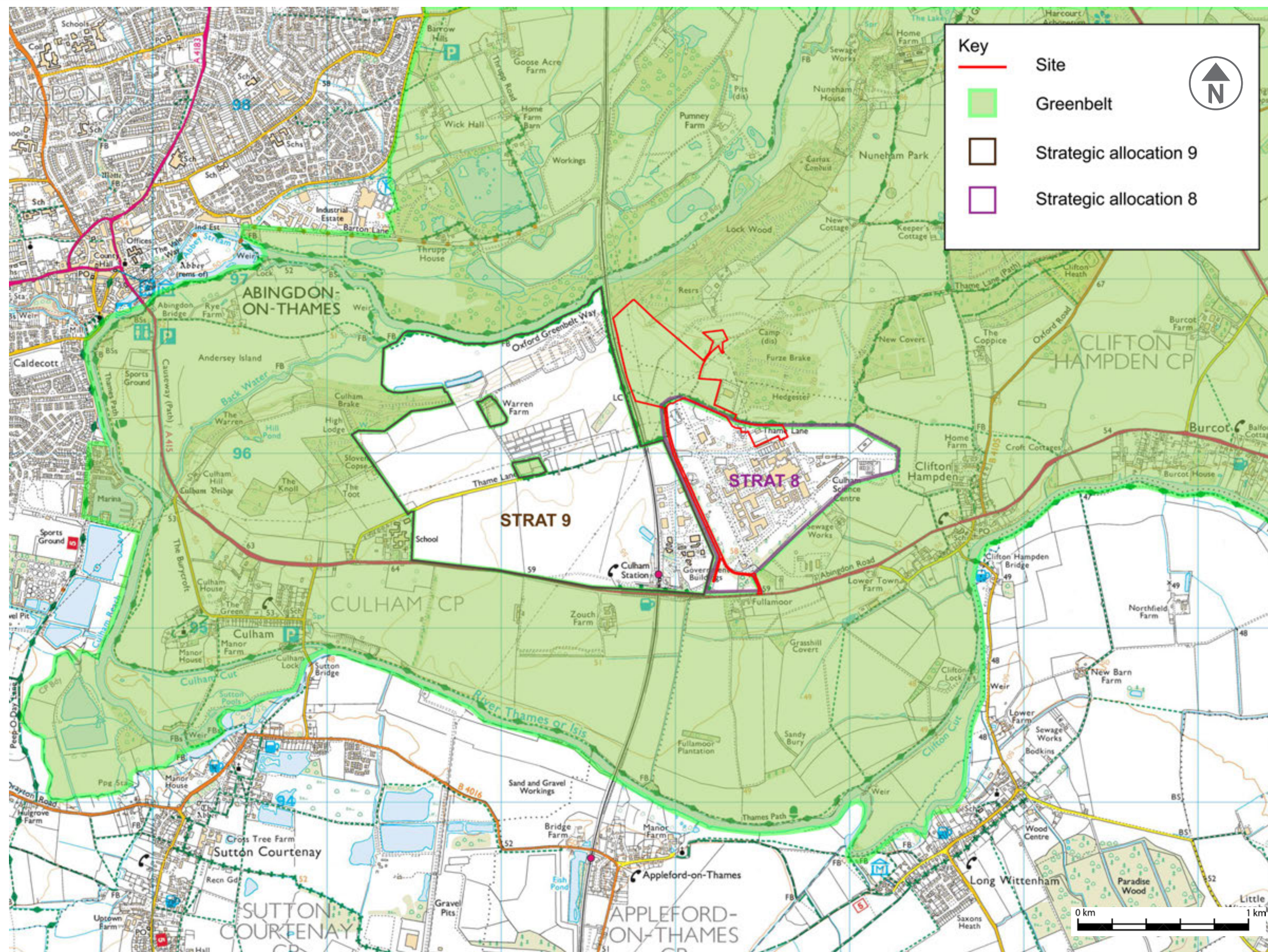


Figure 4: Greenbelt - Expanded View



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Figure 5: Topographical plan of the wider area around the Site

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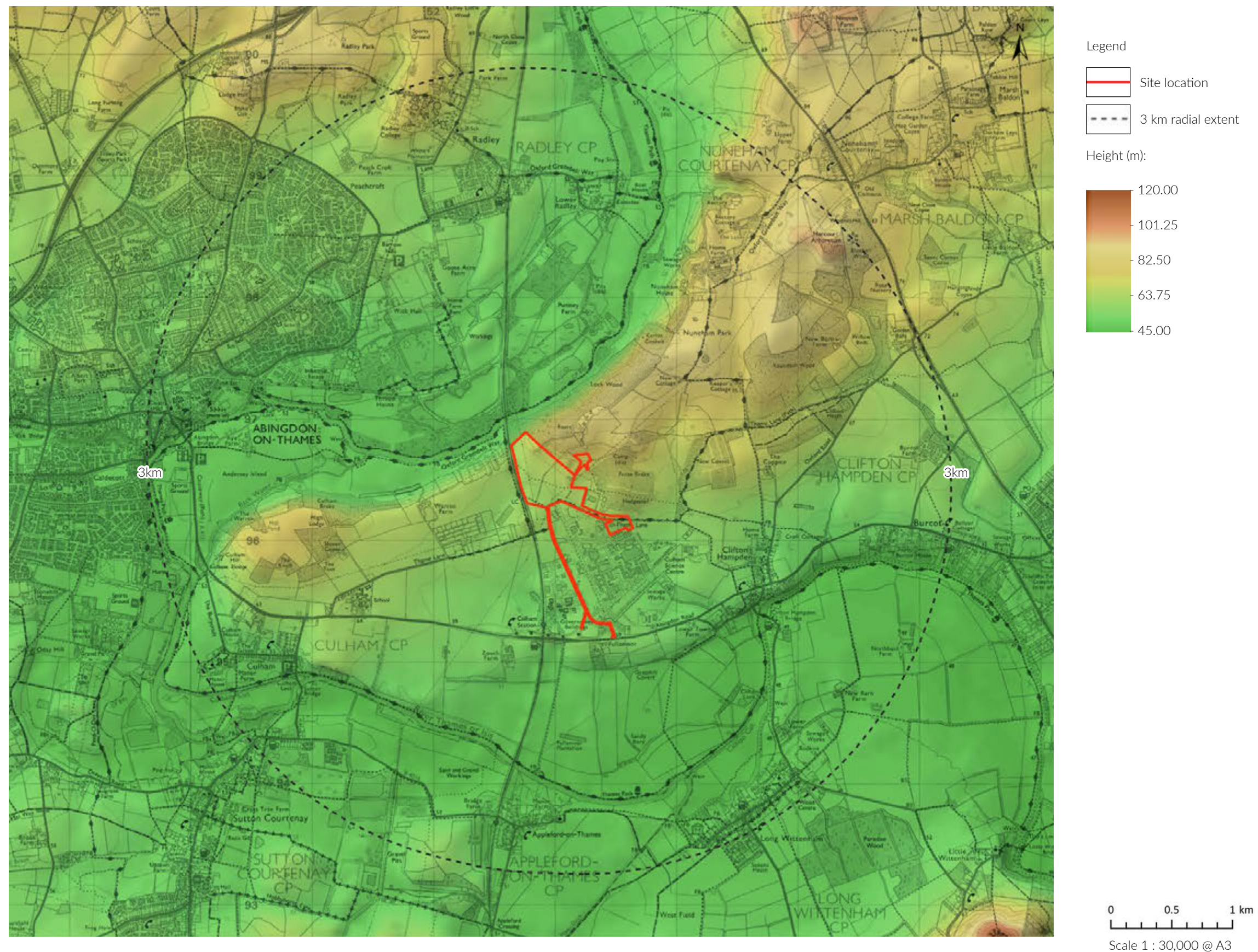


Figure 6: Topographical plan of the Site

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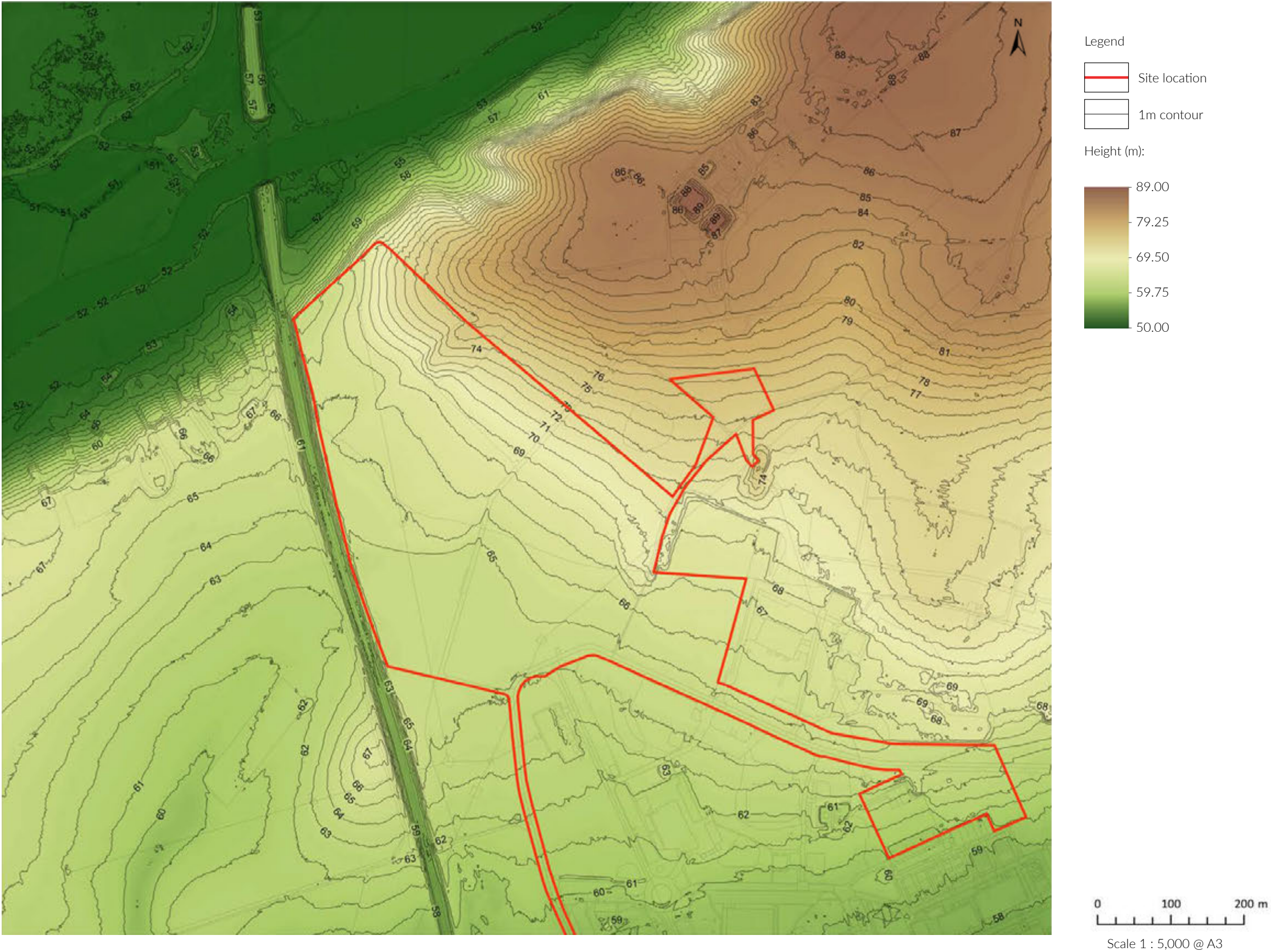
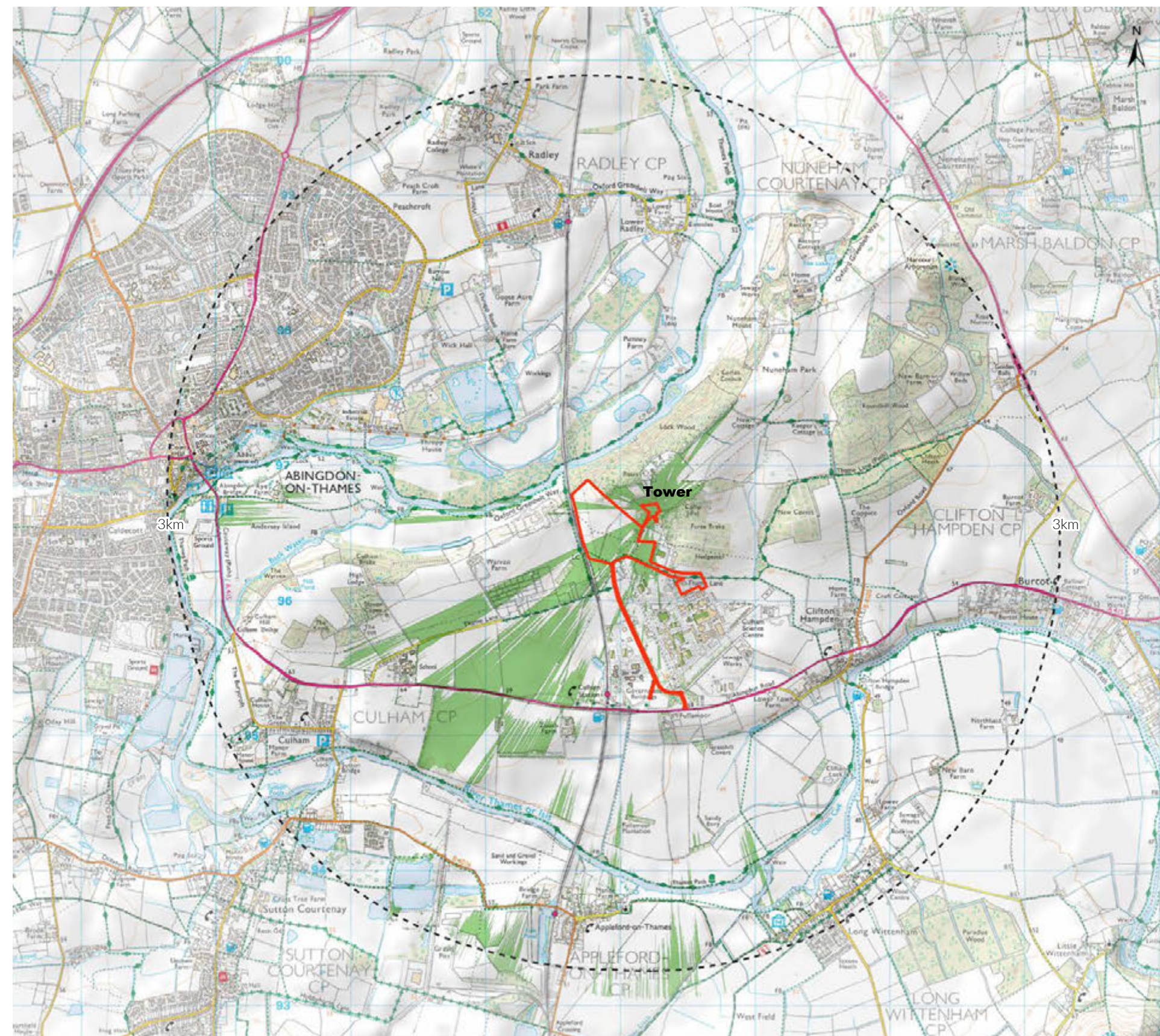





Figure 7: Zone of Theoretical Visibility (ZTV) of the proposed connection tower

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Legend

-  Site location
-  3 km radial extent
-  Zone of Theoretical Visibility

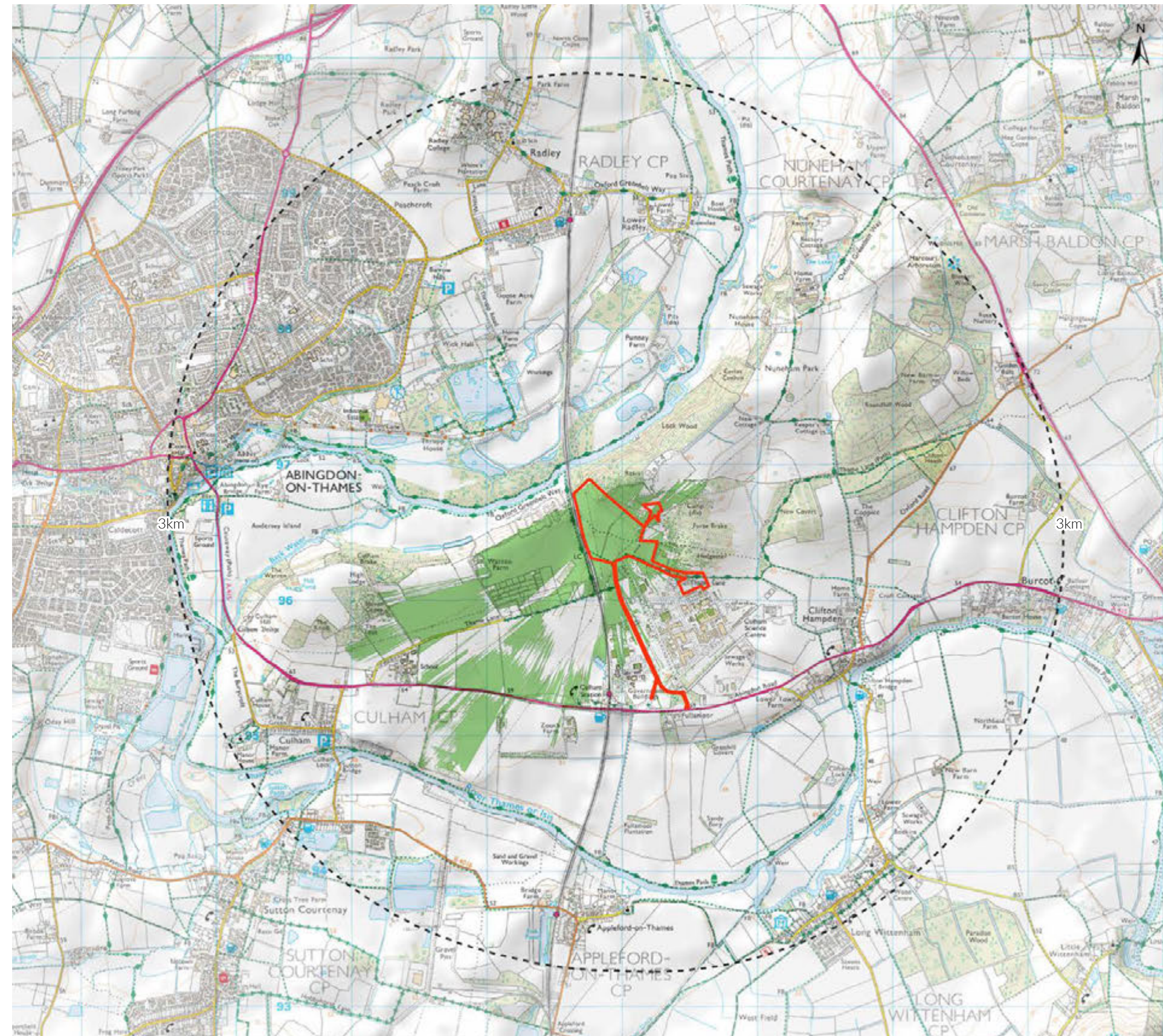
The ZTV is generated from a receptor height of 1.6m (average eye level) and a receiver height of 15m AOD (maximum tower height).

The ZTV is based on OS Pano 50m DTM (Digital Terrain Model). This is a 'bare earth' terrain which is calculated on topography alone. Some changes within the landscape may have occurred since the DTM and ZTV was created. This ZTV also includes Earth's curvature.




0 0.5 1 km
Scale 1 : 30,000 @ A3

Figure 8: Zone of Theoretical Visibility of the Batteries

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Legend

-  Site location
-  3 km radial extent
-  Zone of Theoretical Visibility

The ZTV is generated from a receptor height of 1.6m (average eye level) and a receiver height of 3m AOD (maximum battery height). Multiple targets were placed within the site to best represent points that may be visible.

This ZTV is based on 1m LiDAR 'First Return' DSM (Digital Surface Model) terrain data which includes intervening features such as existing trees/vegetation and buildings in the landscape. Some changes within the landscape may have occurred since the DSM data and ZTV was created. Data source; data.gov.uk. This ZTV also includes Earth's curvature.

0 0.5 1 km
Scale 1 : 30,000 @ A3

Figure 9: Internal Viewpoint Locations

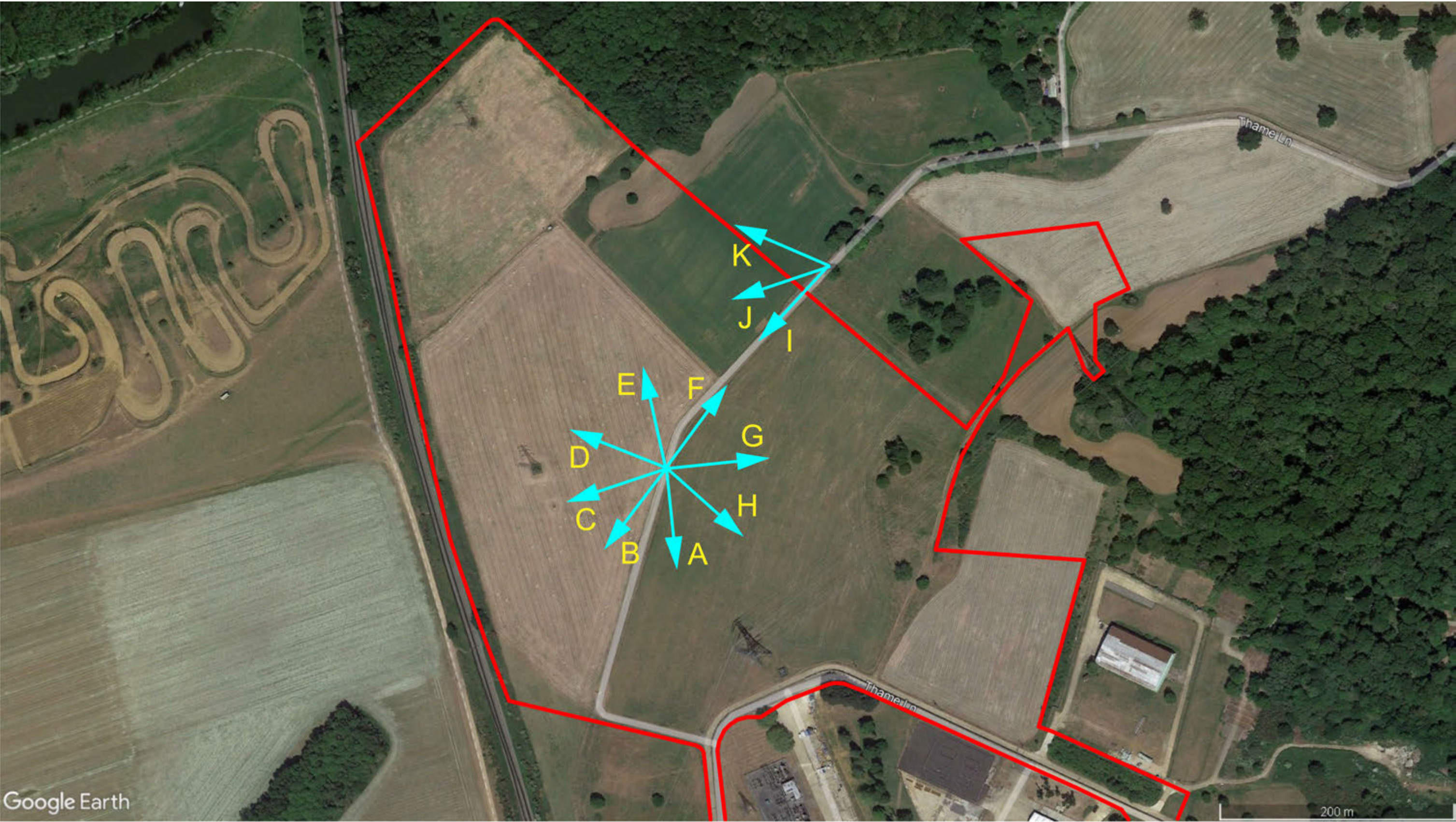
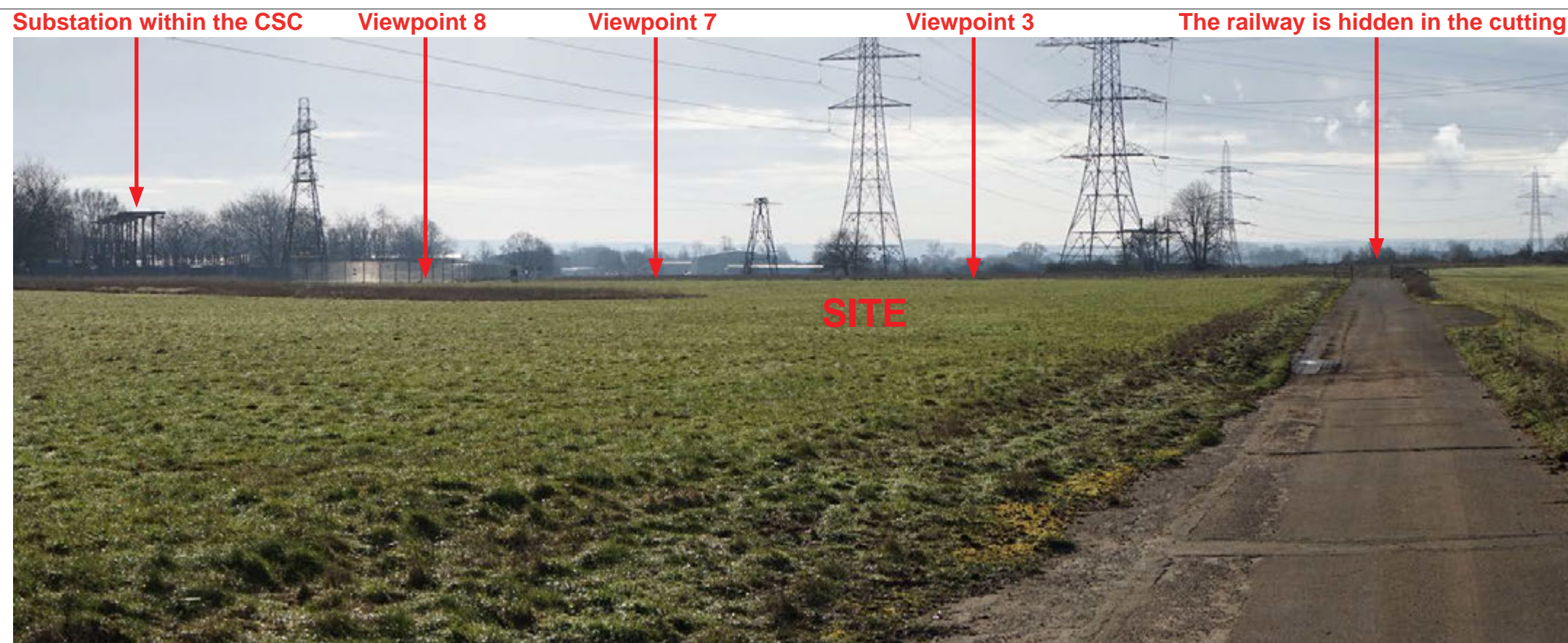


Figure 10.1: Internal viewpoints A & B



Photograph A

This is the first panoramic photograph of a series taken from within the centre of the Site on the boundary between the Registered Park and Garden and the proposed location for the electrical infrastructure. This view is looking south, illustrating the visual influence of the CSC and the overhead transmission lines and towers. Beyond the Site the land falls away and so views back to the Site from this area are very limited. Views will be further constrained as STRAT9 on the south side of the CSC is built out. The railway is not a prominent feature of the landscape since it passes in cutting, which also prevents passengers seeing the Site as they pass.

Photograph B

Looking southwest towards Warren Farm (the STRAT9 allocation). Views of the Site from further south of the farmland are blocked by Culham Brake and Sloven Copse. Views from the south will be further contained as STRAT9 is built out. The railway is not a prominent feature of the landscape since it passes in cutting, which also prevents passengers seeing the Site as they pass.



Figure 10.2: Internal viewpoints C & D

Warren Farm STRAT 9 allocation



Photograph C

Looking west over Warren Farm, again illustrating how the woodland on the skyline limits the visibility of the Site to Warren Farm. The farm has been removed from the Green Belt. The overhead transmission line is an intrusive element within the view.

Photograph D

Looking northwest illustrating the lack of sensitive receptors because the land drops away down to the Thames valley and Abingdon. The overhead transmission line is an intrusive element within the view.

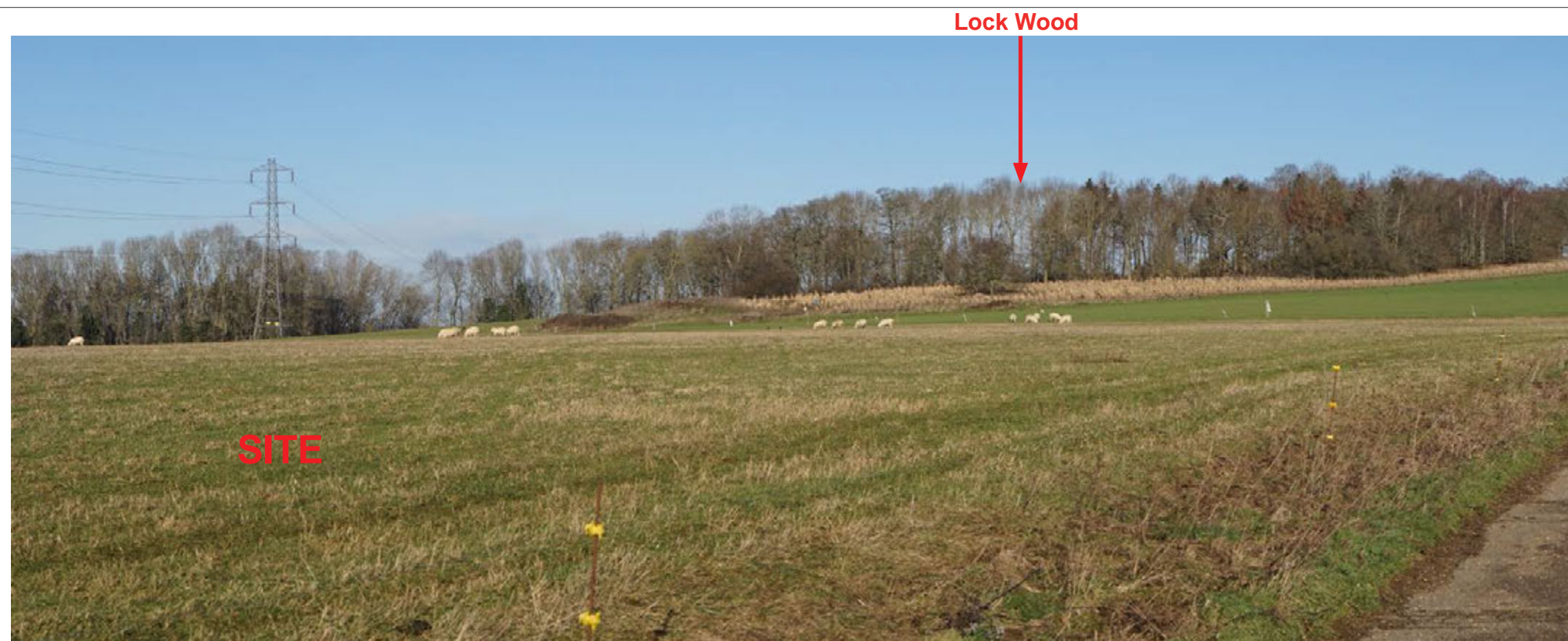
Viewpoint 6

Railway hidden in cutting

Viewpoint 19 down in the Thames Valley



Figure 10.2: Internal viewpoints E



Photograph E

Looking north over the Registered Park and Garden, illustrating the visual enclosure afforded by Lock Wood.

Photograph F

Looking northeast over the Registered Park and Garden, illustrating the visual enclosure afforded by the trees on the skyline, limiting the potential visual influence of the Proposed Development over the remainder of the parkland. The dwelling by the underground reservoir is not visible. It is screened by evergreen and deciduous tree cover.



Figure 10.1: Internal viewpoints G & H

Viewpoint 17 behind the trees



Photograph G

Looking east, illustrating the visual enclosure provided by Furze Brake and the visually detracting overhead transmission lines and towers.

Photograph H

Looking southeast towards the CSC, which visually encloses the Site from land further east.

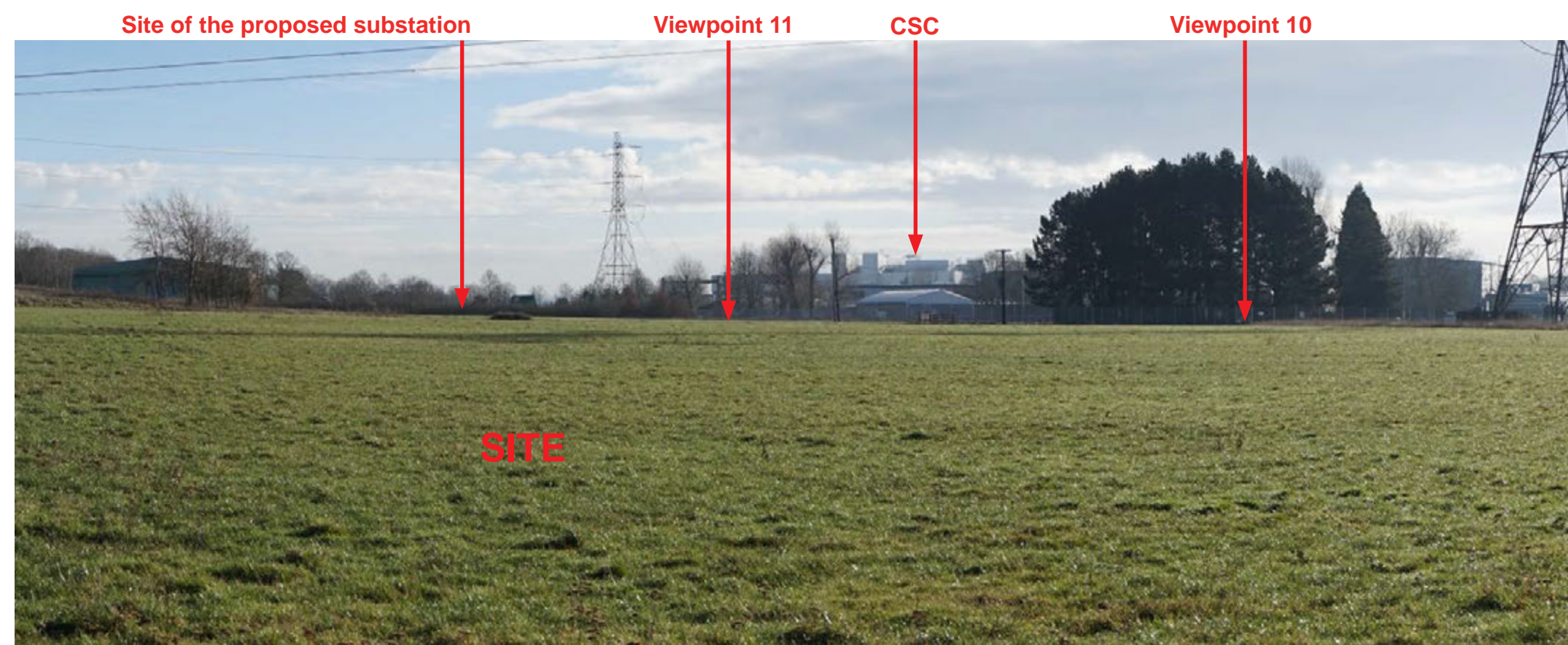
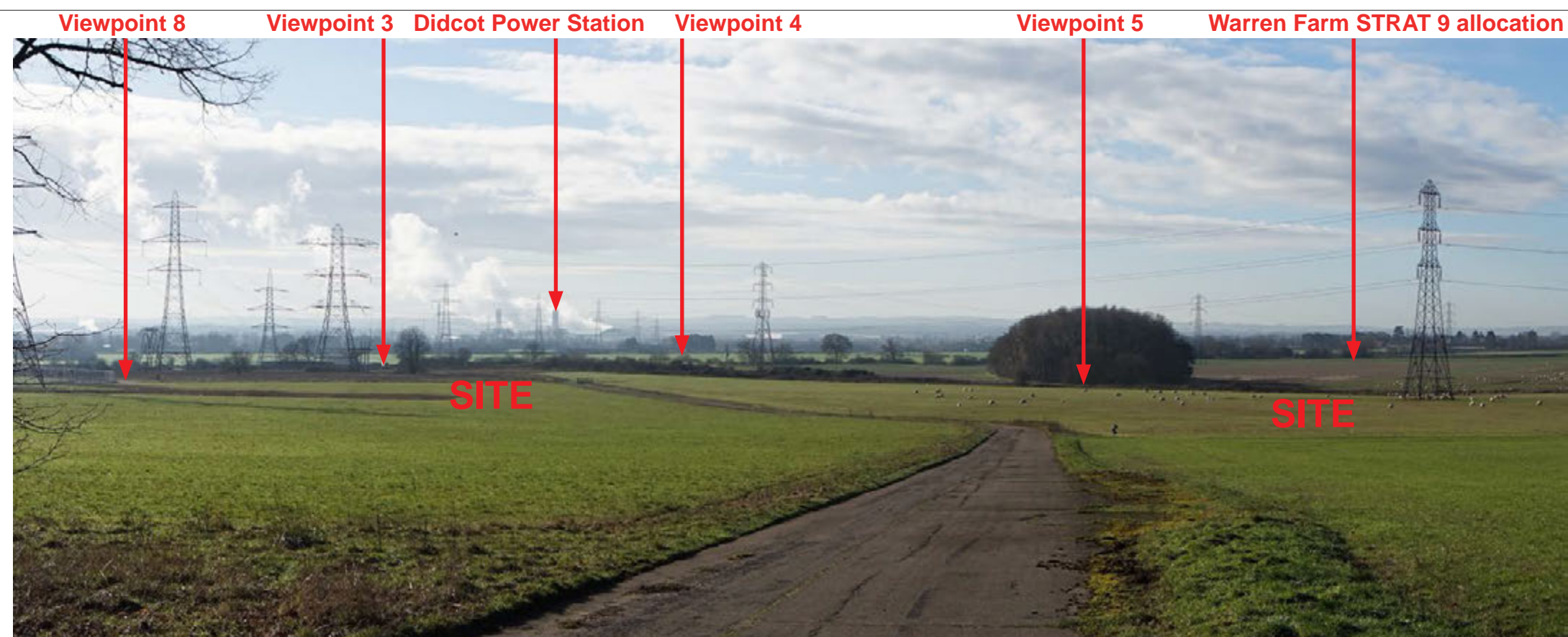


Figure 10.1: Internal viewpoints I & J



Photograph I

This is a view from the northeast edge of the Site looking southeast illustrating how the setting of this part of the parkland is adversely affected by the overhead transmission line and Didcot Power Station. It will be further adversely affected as STRAT9 is built out and while the Proposed Development at the base of the slope will also have a cumulative adverse effect on its setting, it also presents an opportunity to restore the setting of the parkland, screening it from the existing, allocated and proposed developments.

Photograph J

A continuation of Panorama I, looking east over Warren Farm (STRAT9) and the Thames Valley. Without mitigation any development within STRAT9 will be clearly visible.

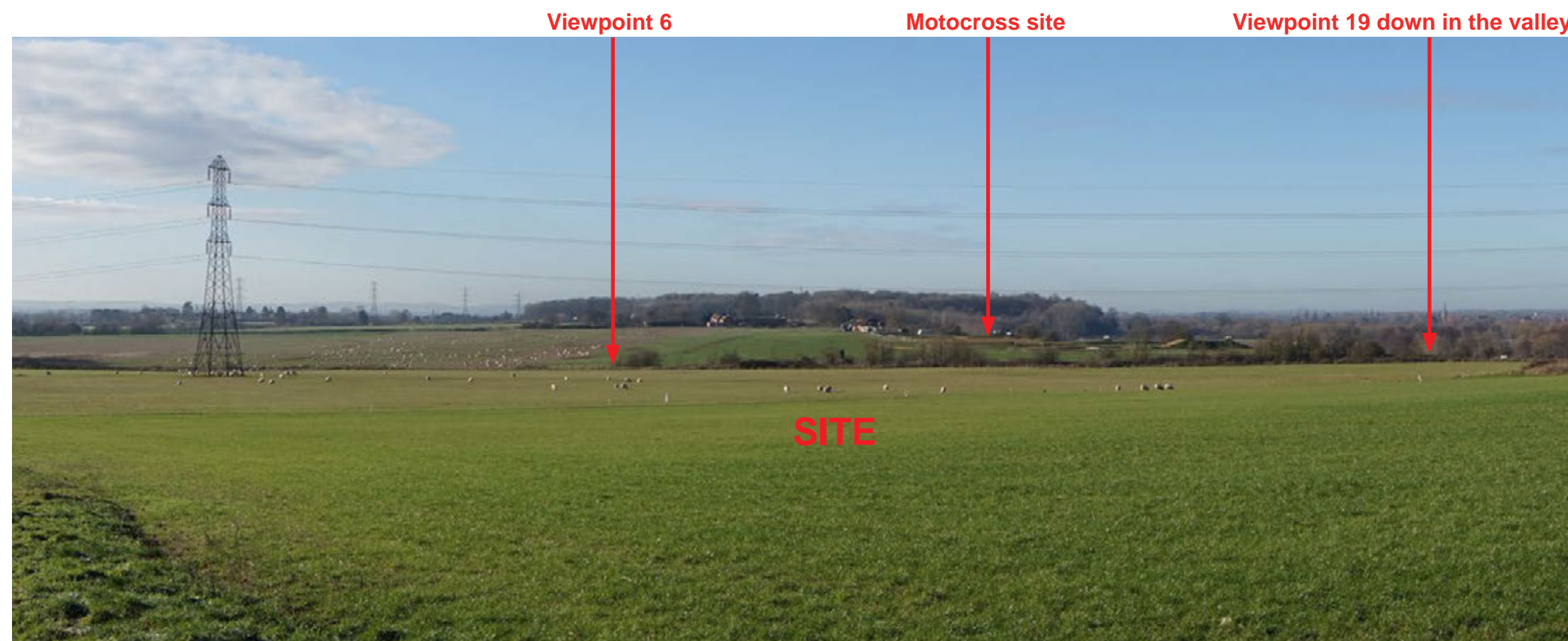


Figure 10.1: Internal viewpoint K & L

Viewpoint 19 down in the valley

Lock Wood



Photograph K

A continuation of Panorama J, looking northeast, illustrating the enclosure provided by Lock Wood.

Photograph L

Looking northeast towards the site of the proposed connection tower.

Site of the proposed connection tower

The tower will connect into this tower



Figure 11: Landscape Character

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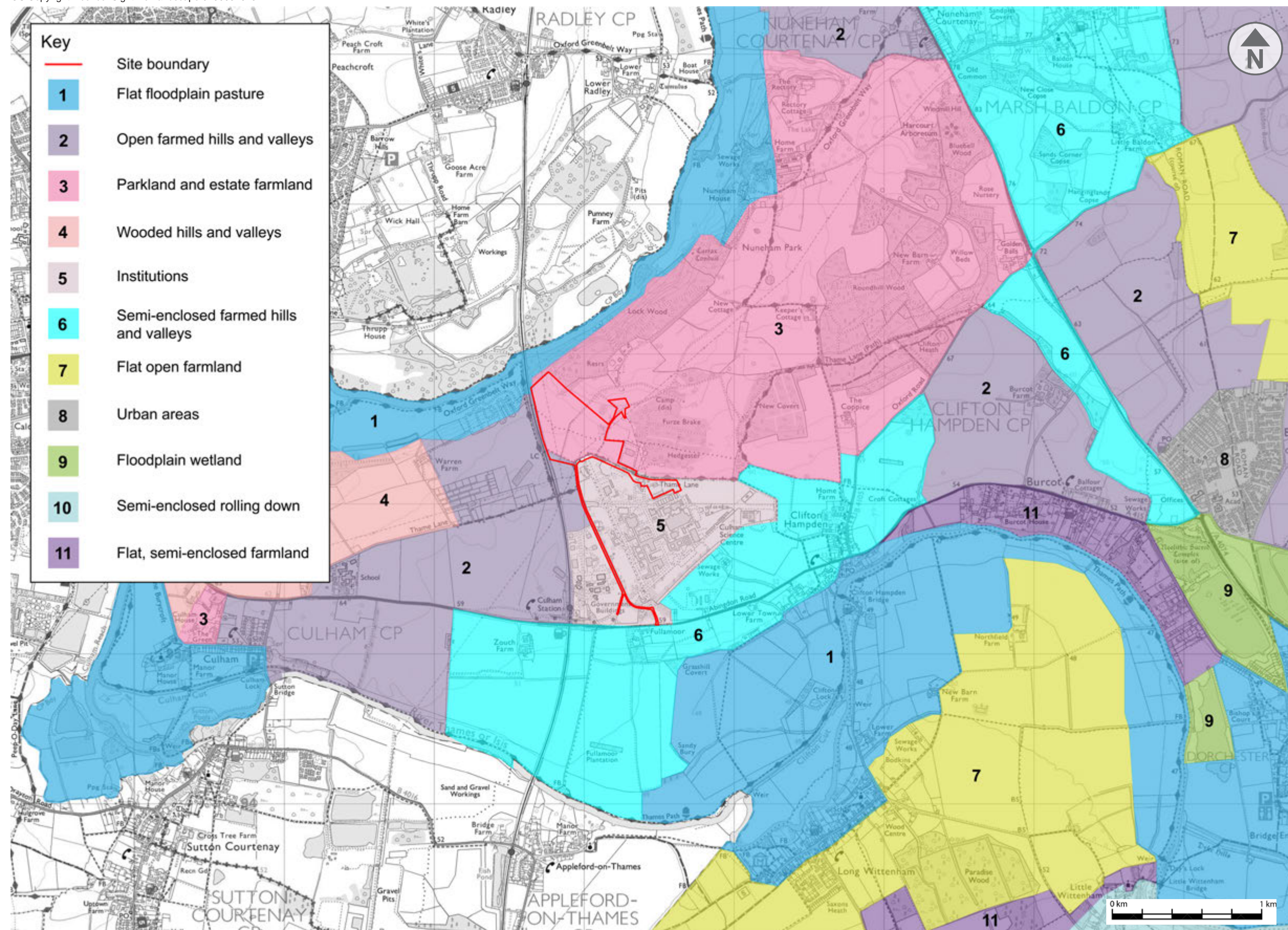


Figure 12: Historical Map Overlay 1883

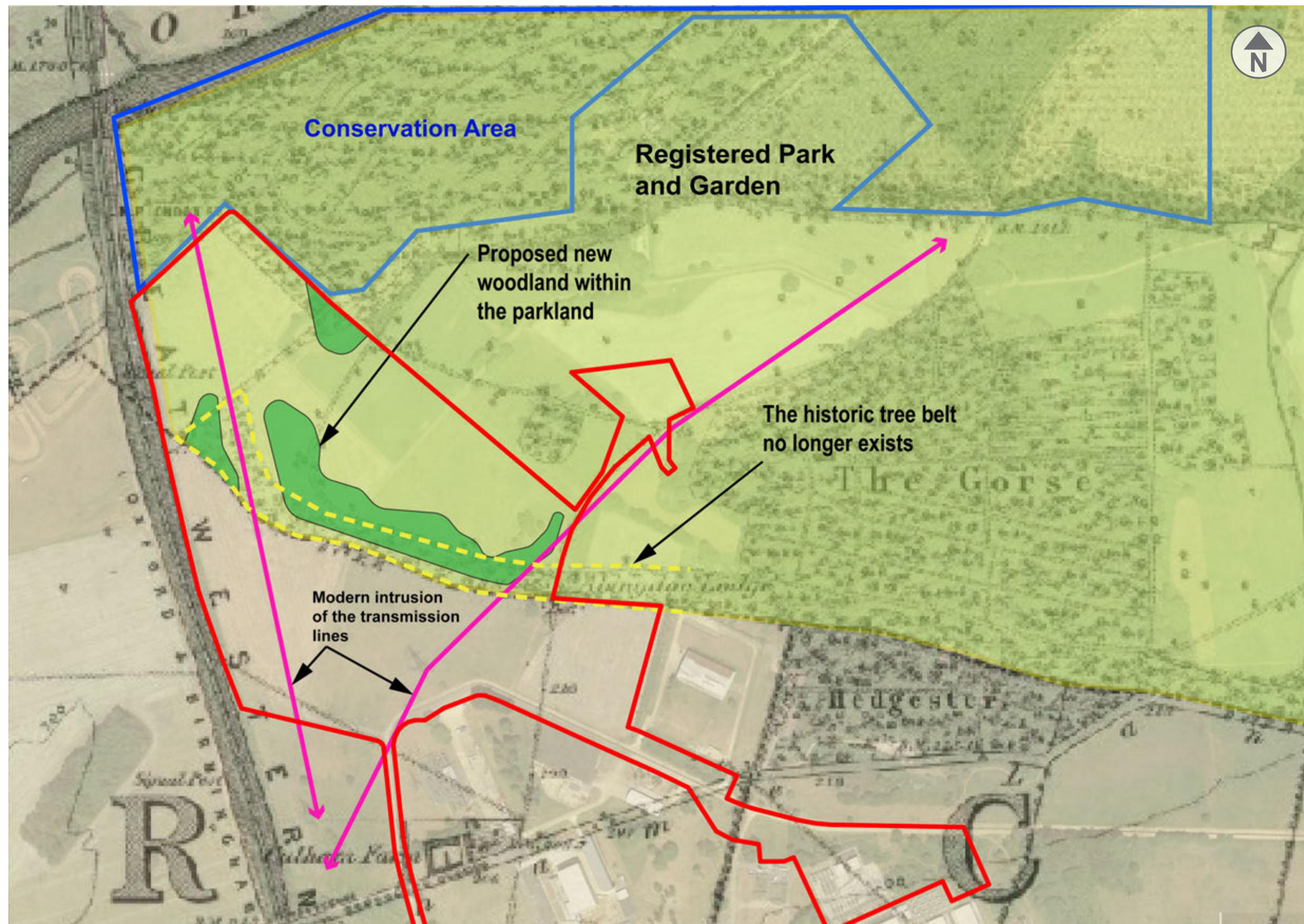


Figure 13: Masterplan

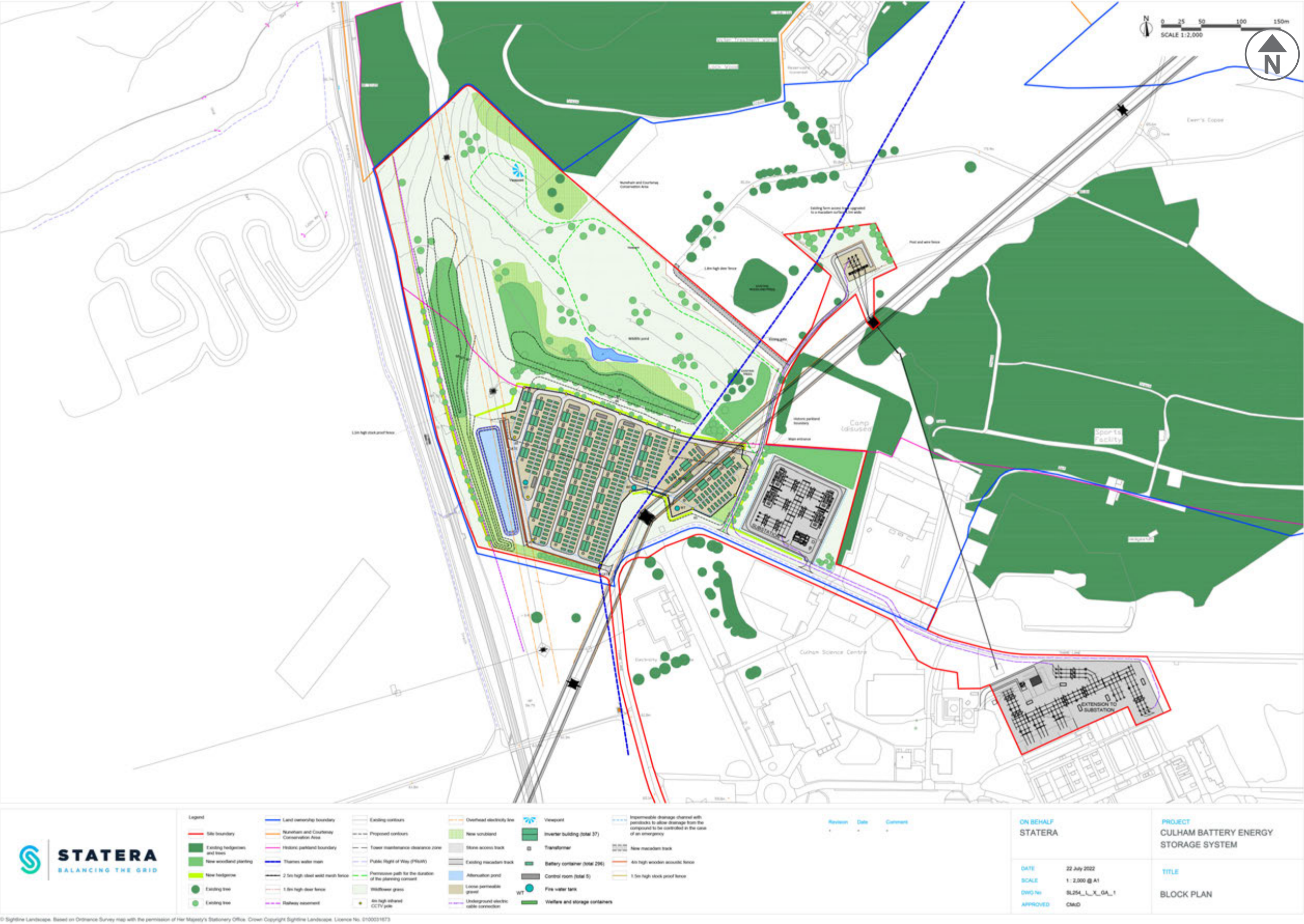
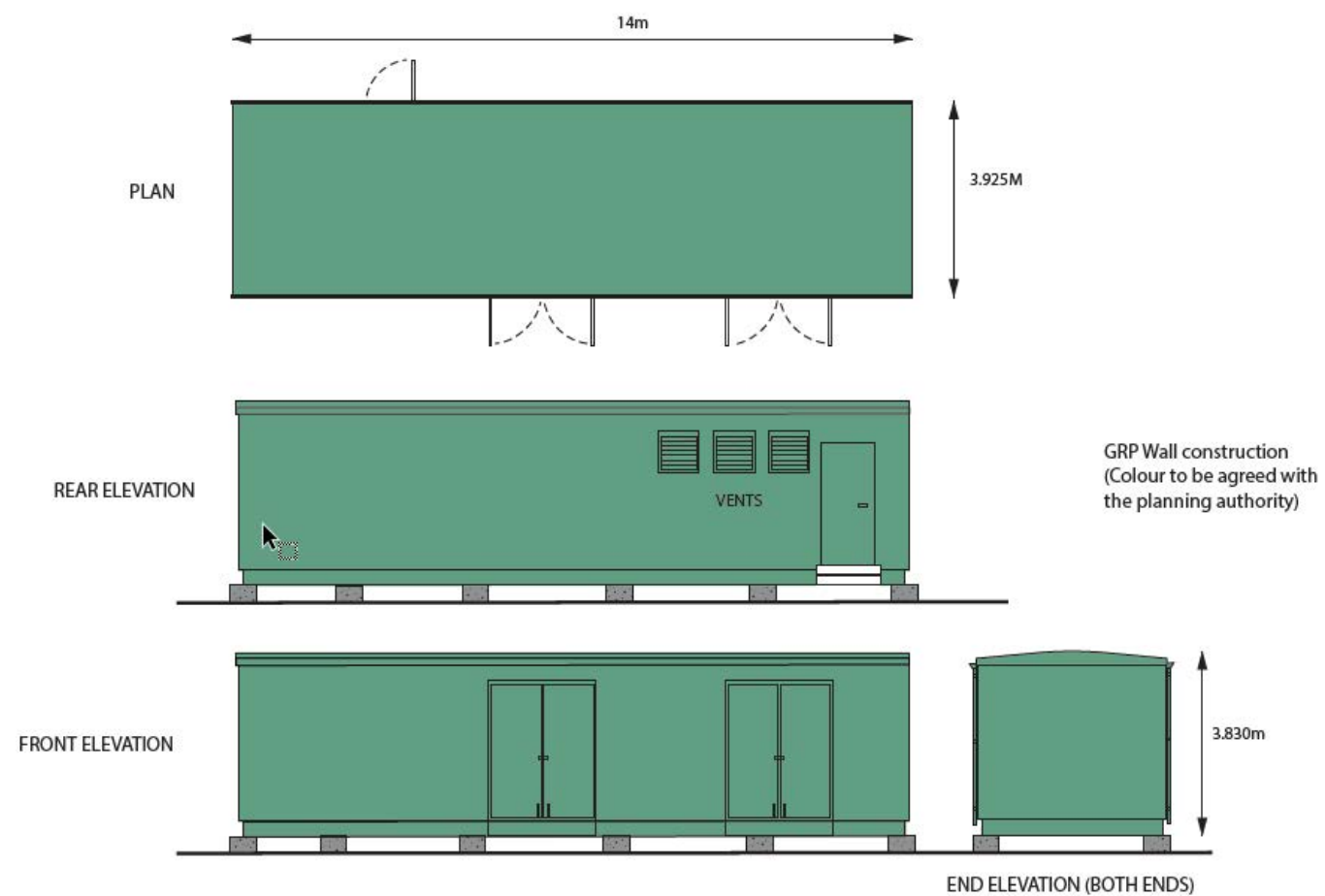


Figure 14.1: Indicative Elevations



Control Room

Corrugated steel clad building
finished in a recessive green
with a folded metal roof,
matt zinc finish. Exact colour
finishes to be agreed with
the planning authority.

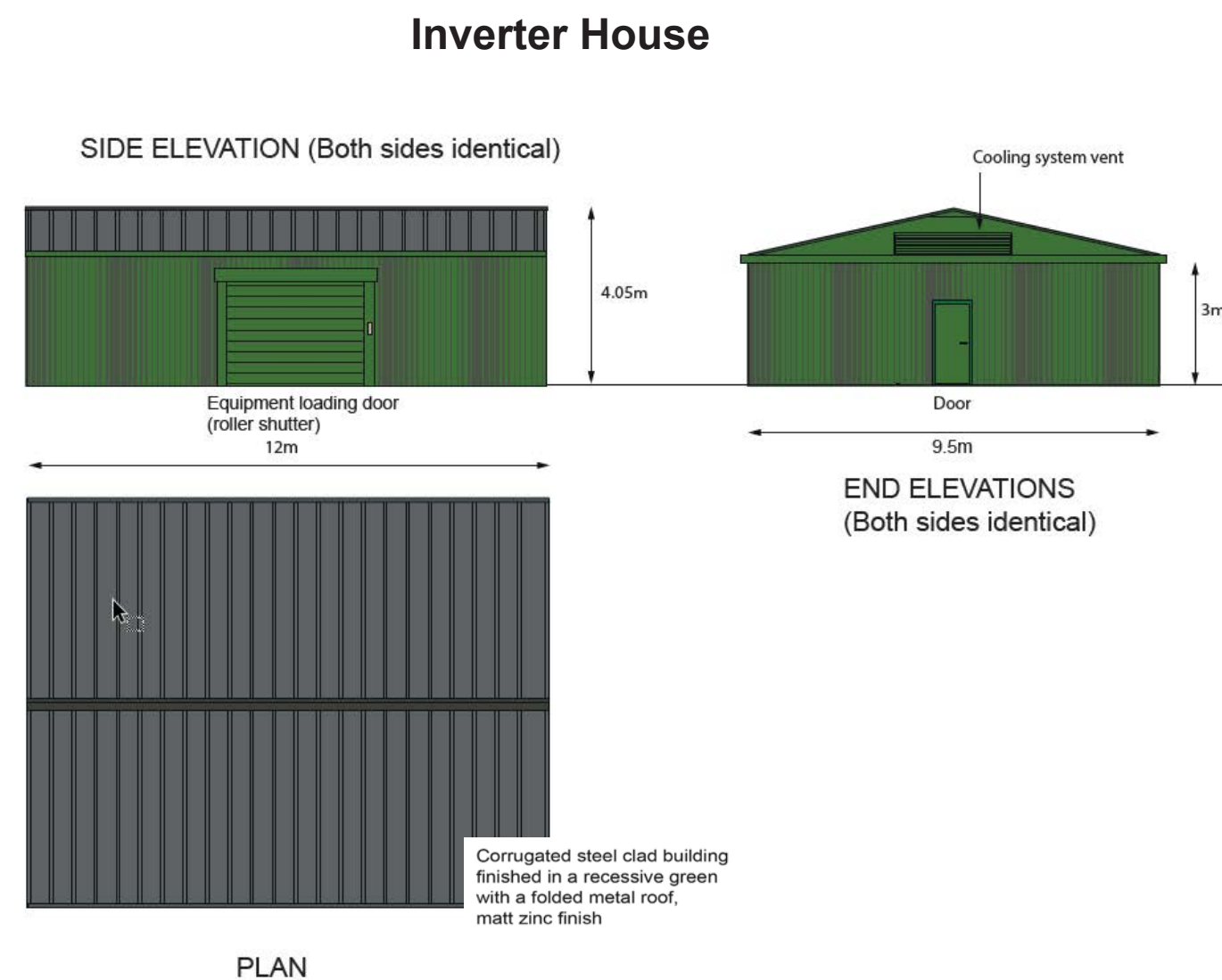
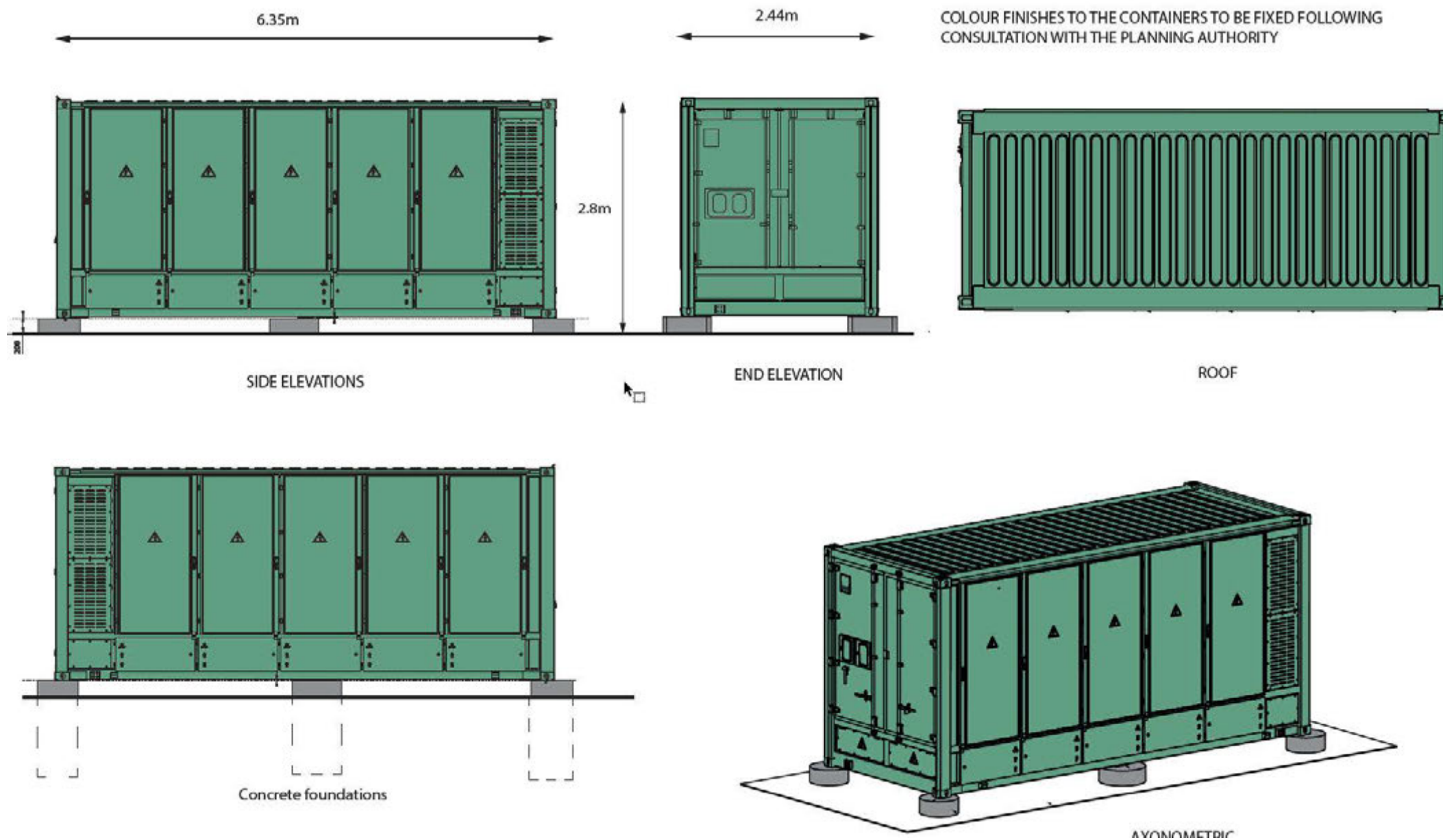


Figure 14.2: Indicative Elevations



Battery Container

Transformer

