

## **Great North Road Solar and Biodiversity Park**

Environmental Statement

Volume 4 – Technical Appendices

Technical Appendix A3.1 – EIA Scoping Report - Part 4 of 6

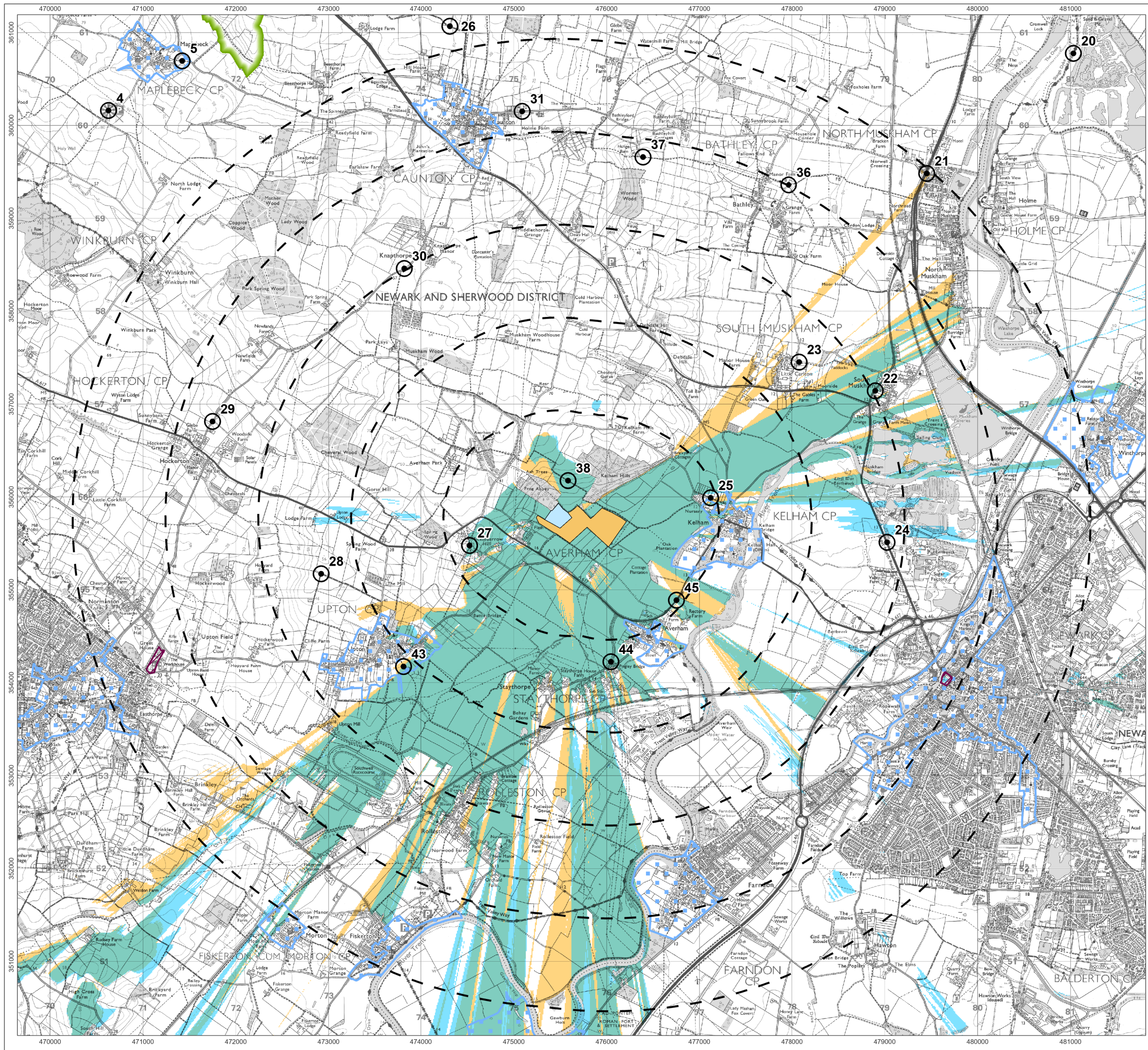
Document reference – EN010162/APP/6.4.3.1

Revision number 1

June 2025

Infrastructure Planning (Applications: Prescribed Forms and  
Procedure) Regulations 2009, APFP Regulation 5(2)(a)





- 400kV substation
- BESS
- Distance from BESS/400kV Compound (1,2,3,4,5km)
- Proposed Viewpoints
- Sherwood Forest Regional Park
- Conservation Areas
- Registered Historic Parks and Gardens
- Zone of Theoretical Visibility
  - 400kV substation may be visible (13m max. height)
  - BESS may be visible (3.5m max. height)
  - 400kV substation & BESS may be visible

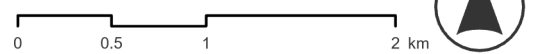
**NOTES:**  
This drawing is based upon computer generated Zone of Theoretical Visibility (ZTV) studies produced using the Viewshed routine in the Visibility Analysis plugin for QGIS. The areas shown are the maximum theoretical visibility, taking into account topography, principal woodlands and buildings.

A digital surface model (DSM) has been derived from 10m LIDAR height data with the locations of woodland and buildings taken from the OS Open Map Local dataset. Buildings have been modelled with an assumed height of 7.5m and woodland an assumed height of 15m, representing a conservative estimate of average heights within the study area.

The model does not take into account some localised features such as small copses, hedgerows or individual trees and therefore still gives an exaggerated impression of the extent of visibility. The actual extent of visibility on the ground will be less than that suggested by this plan.

The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a 10m resolution.

1:40,000 Scale @ A3

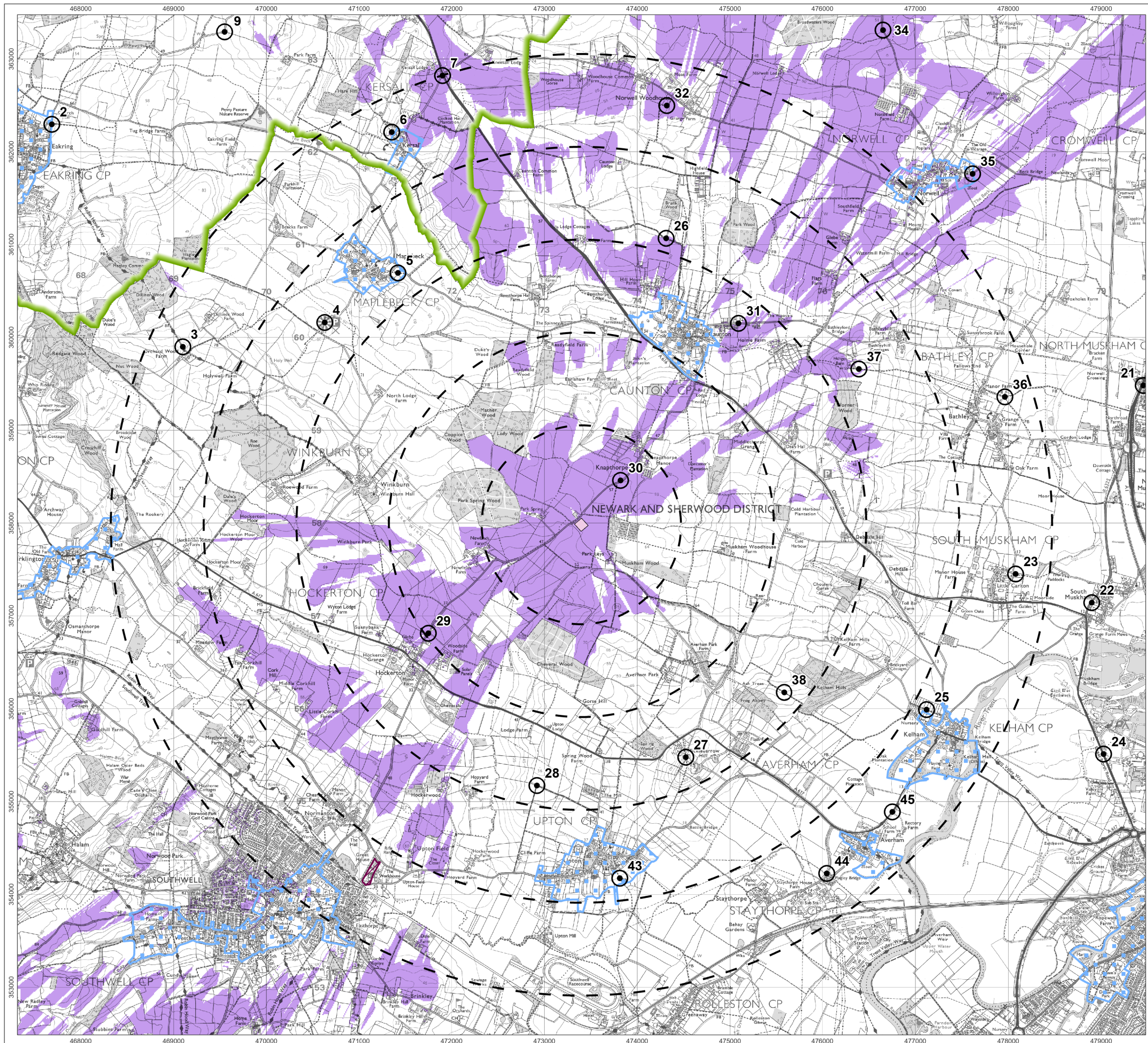


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## BESS/400kV Compound - ZTV Study Figure 5.3

Great North Road  
Scoping Report





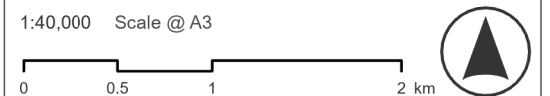
- Substation Area A
- Distance from Substation Area (1,2,3,4,5km)
- Proposed Viewpoints
- Sherwood Forest Regional Park
- Conservation Areas
- Registered Historic Parks and Gardens
- Zone of Theoretical Visibility
- Substation A may be visible (12m max. height)

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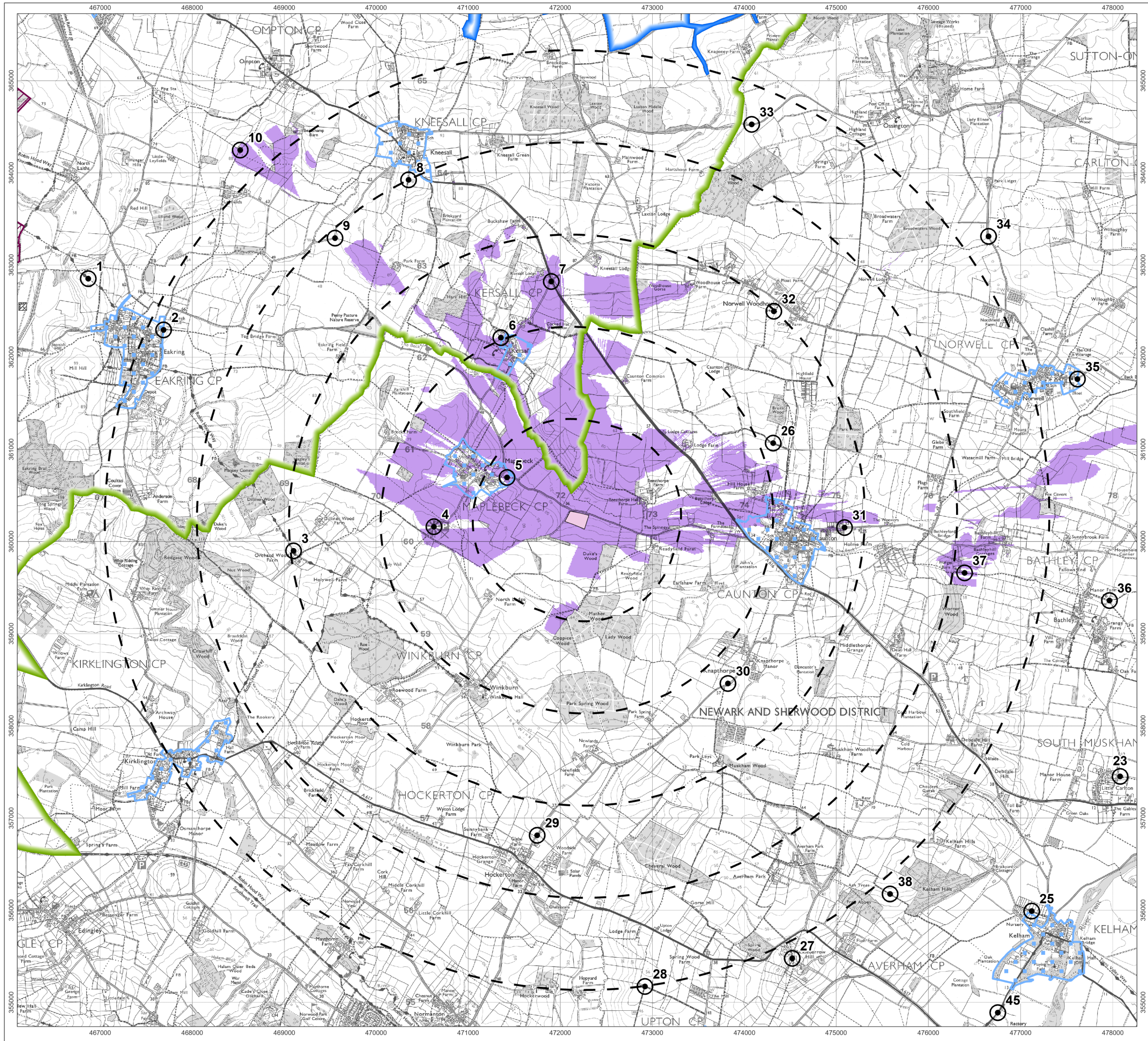
The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a 10m resolution.



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**Substations - ZTV Study  
Figure 5.4a**





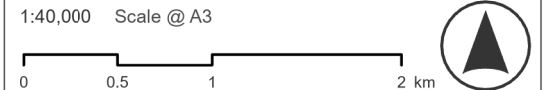
- Substation Area B
- Distance from Substation Area (1,2,3,4,5km)
- Proposed Viewpoints
- Sherwood Forest Regional Park
- Historic Landscape around Laxton
- Conservation Areas
- Zone of Theoretical Visibility
- Substation B may be visible (12m max. height)

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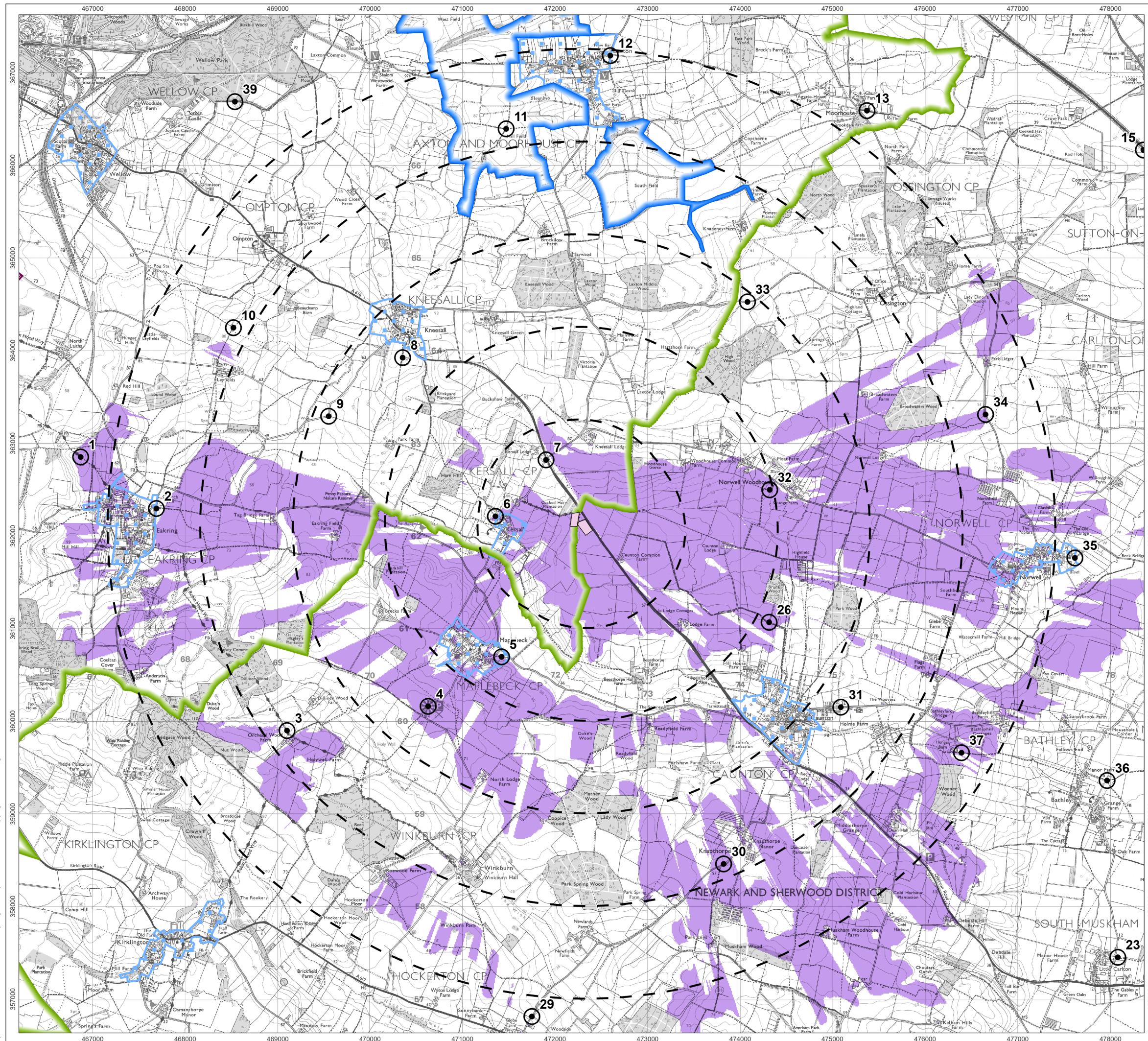
The ZTV includes an adjustment that allows for Earth's curvature and light refraction. It is based on a derived DSM and has a 10m resolution.











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**Substations - ZTV Study  
Figure 5.4b**





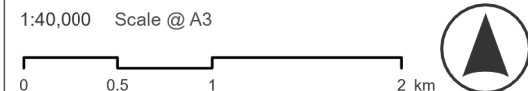
-  Substation Area C
-  Distance from Substation Area (1,2,3,4,5km)
-  Proposed Viewpoints
-  Sherwood Forest Regional Park
-  Historic Landscape around Laxton
-  Conservation Areas
-  Zone of Theoretical Visibility
-  Substation C may be visible (12m max. height)

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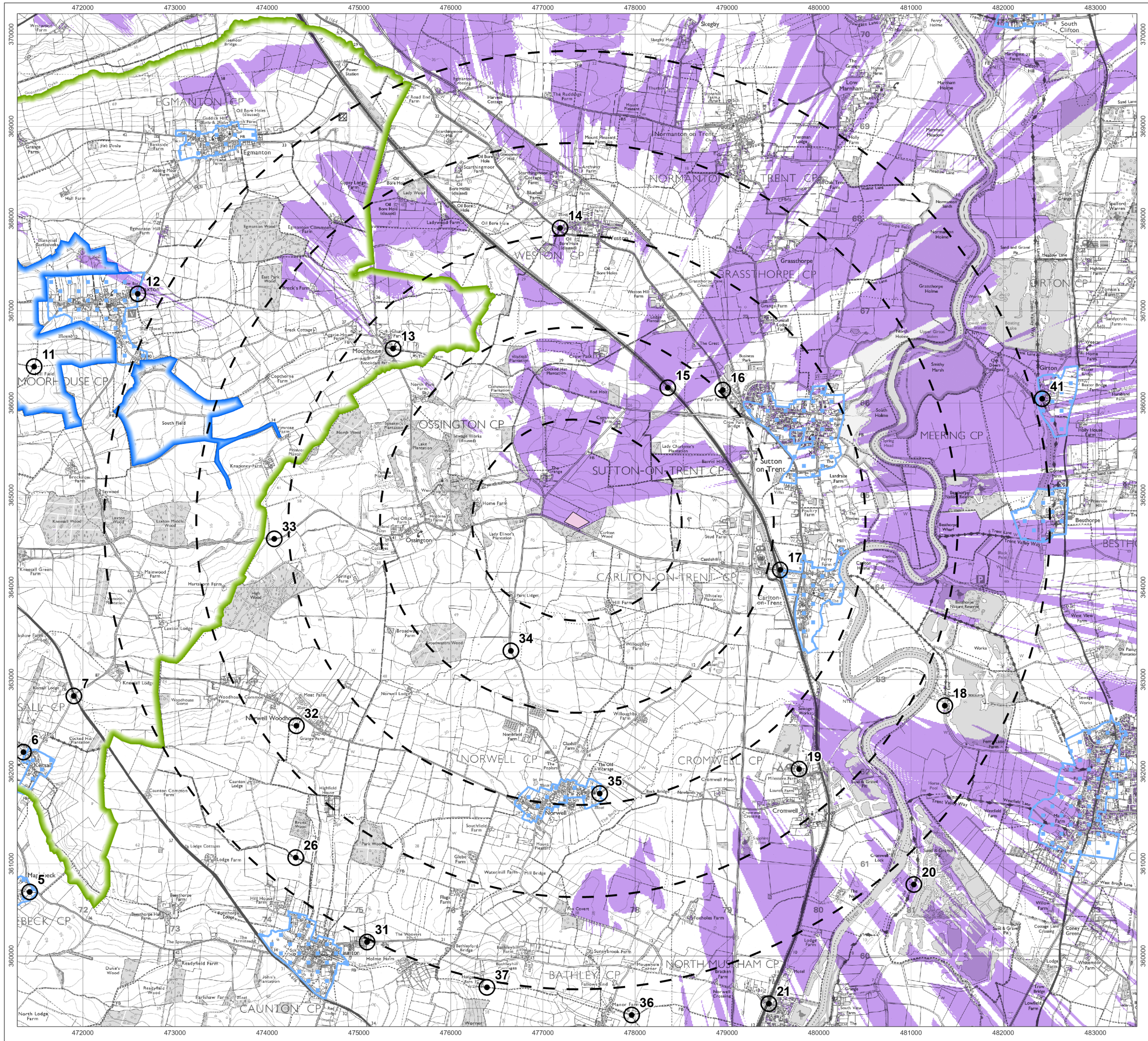
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**Substations - ZTV Study  
Figure 5.4c**





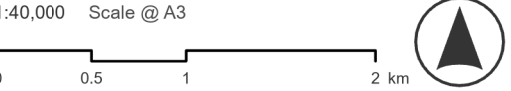
- Substation Area D
- Distance from Substation Area (1,2,3,4,5km)
- Proposed Viewpoints
- Sherwood Forest Regional Park
- Historic Landscape around Laxton
- Conservation Areas
- Zone of Theoretical Visibility
- Substation D may be visible (12m max. height)

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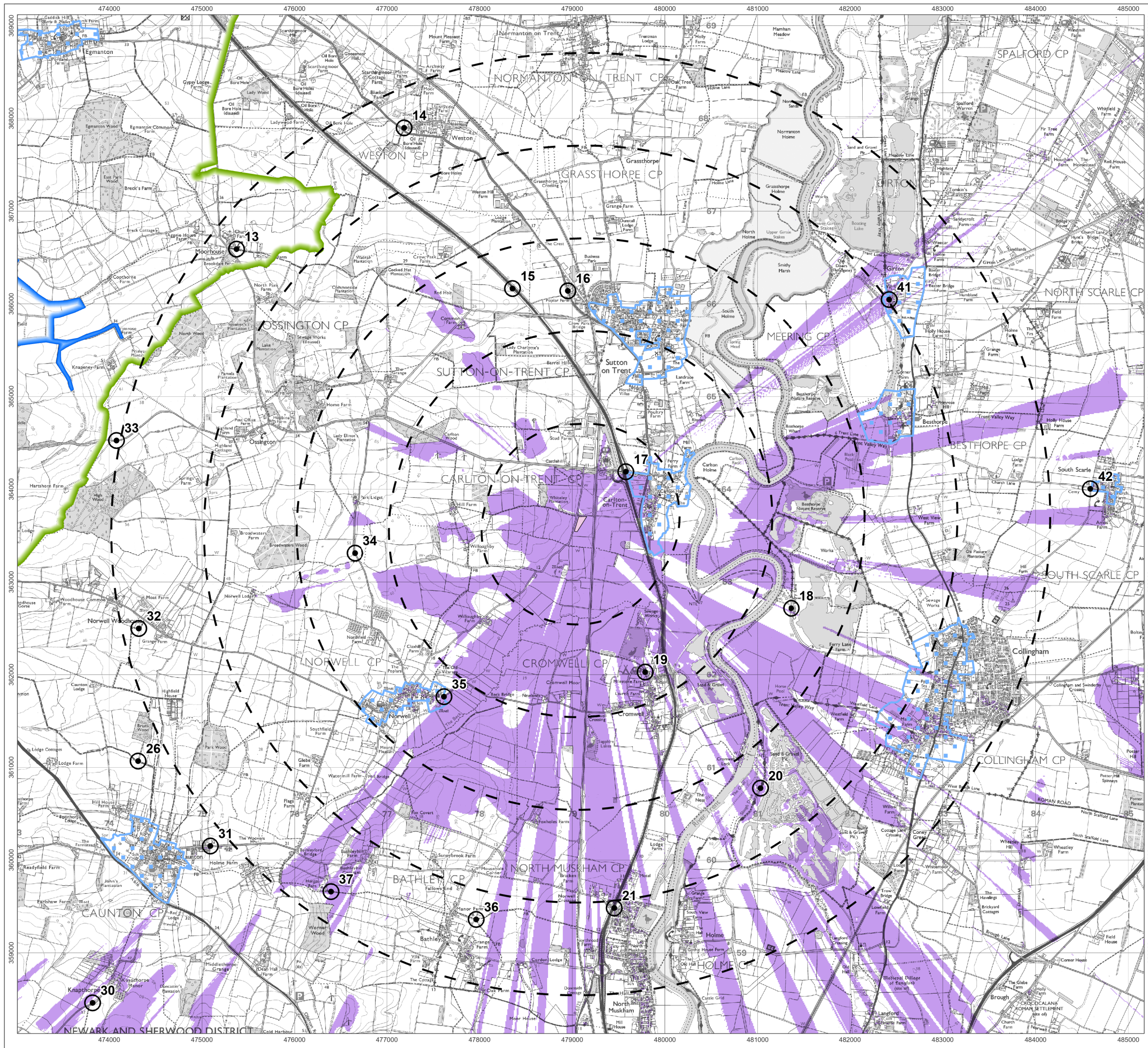
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Substations - ZTV Study  
Figure 5.4d





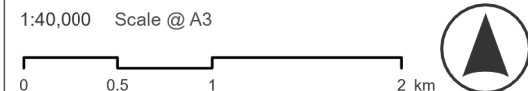
- Substation Area E
- Distance from Substation Area (1,2,3,4,5km)
- Proposed Viewpoints
- Sherwood Forest Regional Park
- Historic Landscape around Laxton
- Conservation Areas
- Zone of Theoretical Visibility
- Substation E may be visible (12m max. height)

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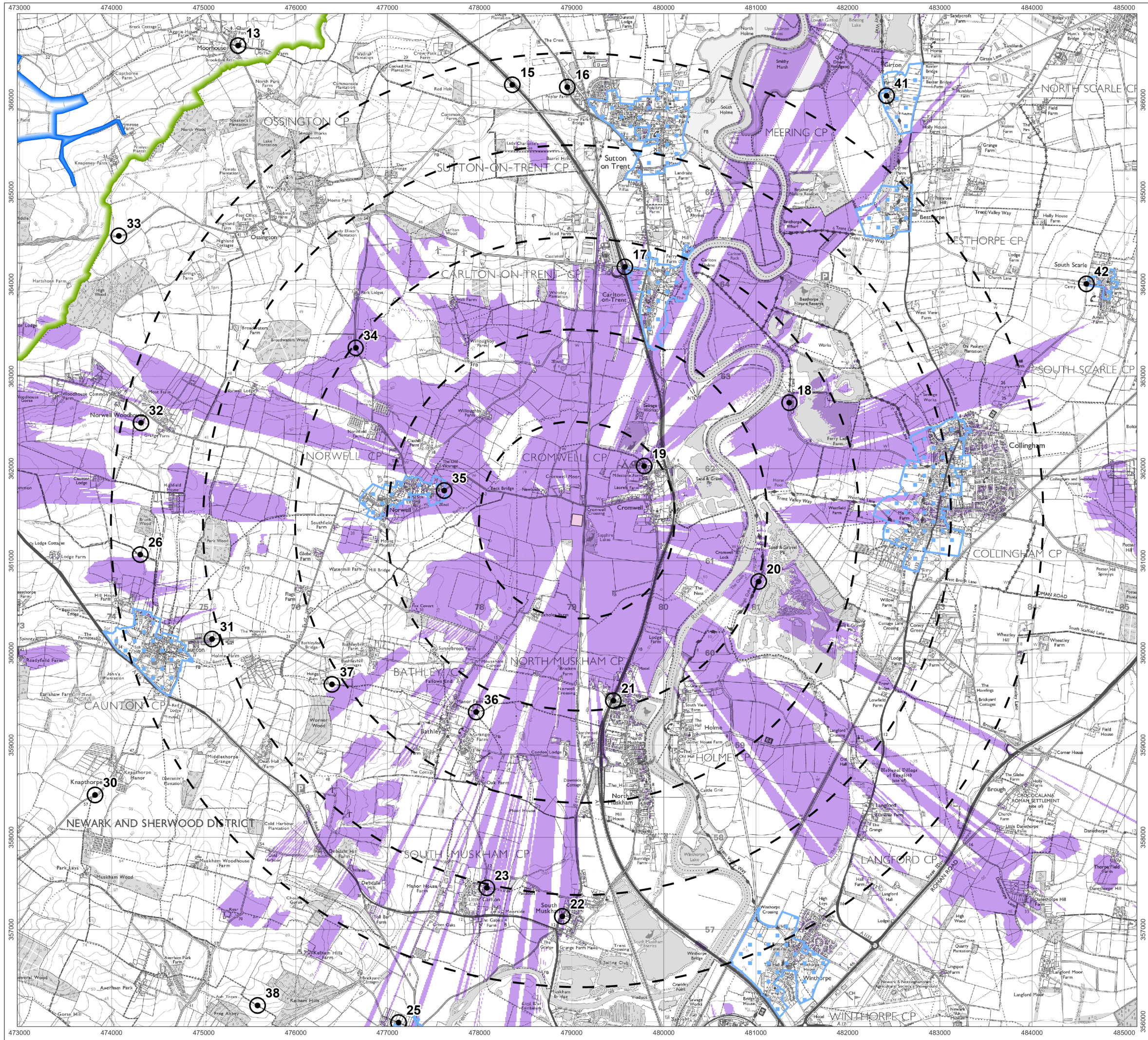
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**Substations - ZTV Study  
Figure 5.4e**





- Substation Area F
- Distance from Substation Area (1,2,3,4,5km)
- Proposed Viewpoints
- Sherwood Forest Regional Park
- Historic Landscape around Laxton
- Conservation Areas
- Zone of Theoretical Visibility
- Substation F may be visible (12m max. height)

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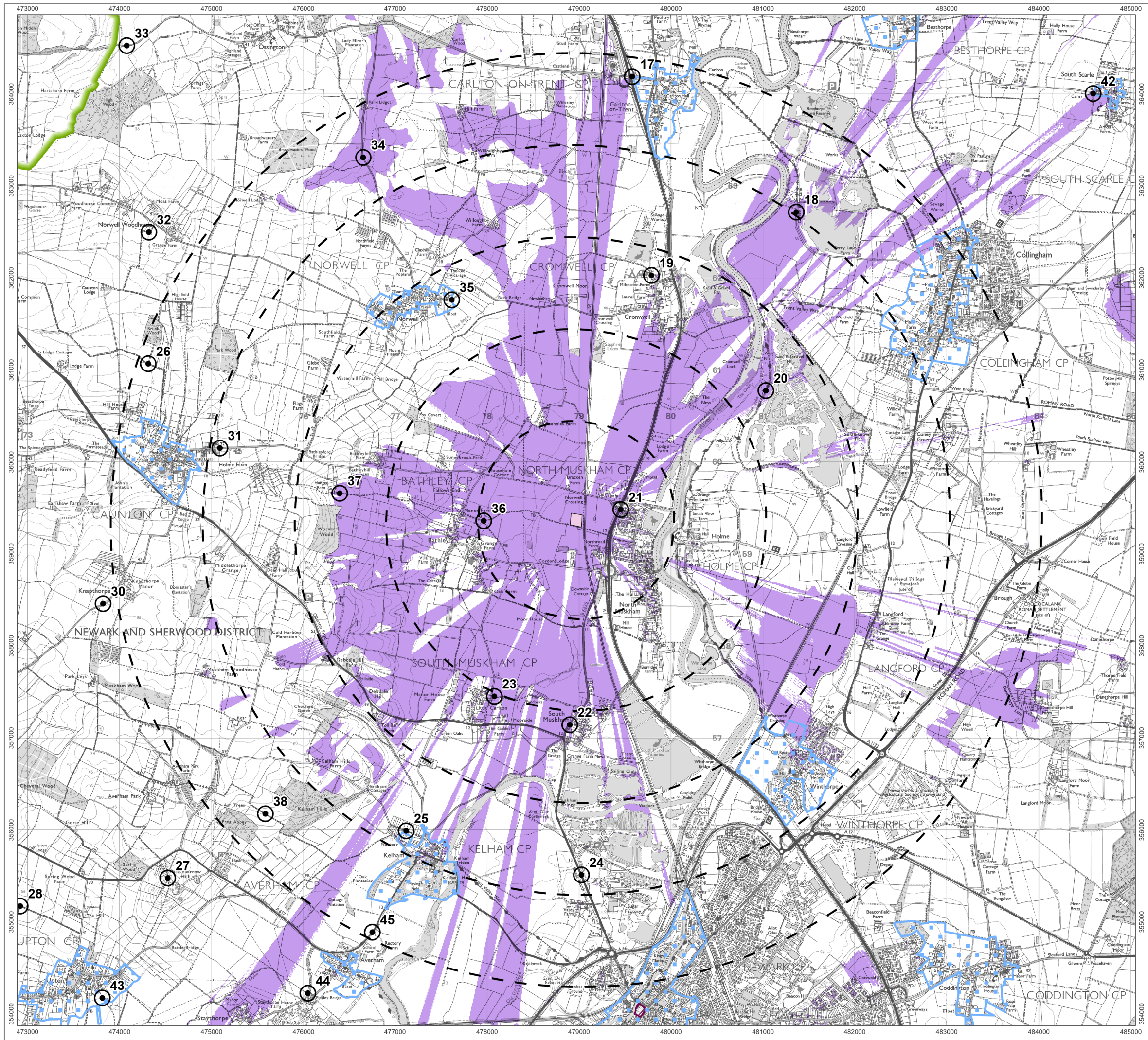
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**Substations - ZTV Study**  
**Figure 5.4f**





- Substation Area G
- Distance from Substation Area (1,2,3,4,5km)
- Proposed Viewpoints
- Sherwood Forest Regional Park
- Conservation Areas
- Zone of Theoretical Visibility
- Substation G may be visible (12m max. height)

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**Substations - ZTV Study**  
**Figure 5.4g**  
**Great North Road**  
**Scoping Report**