
Environmental Statement

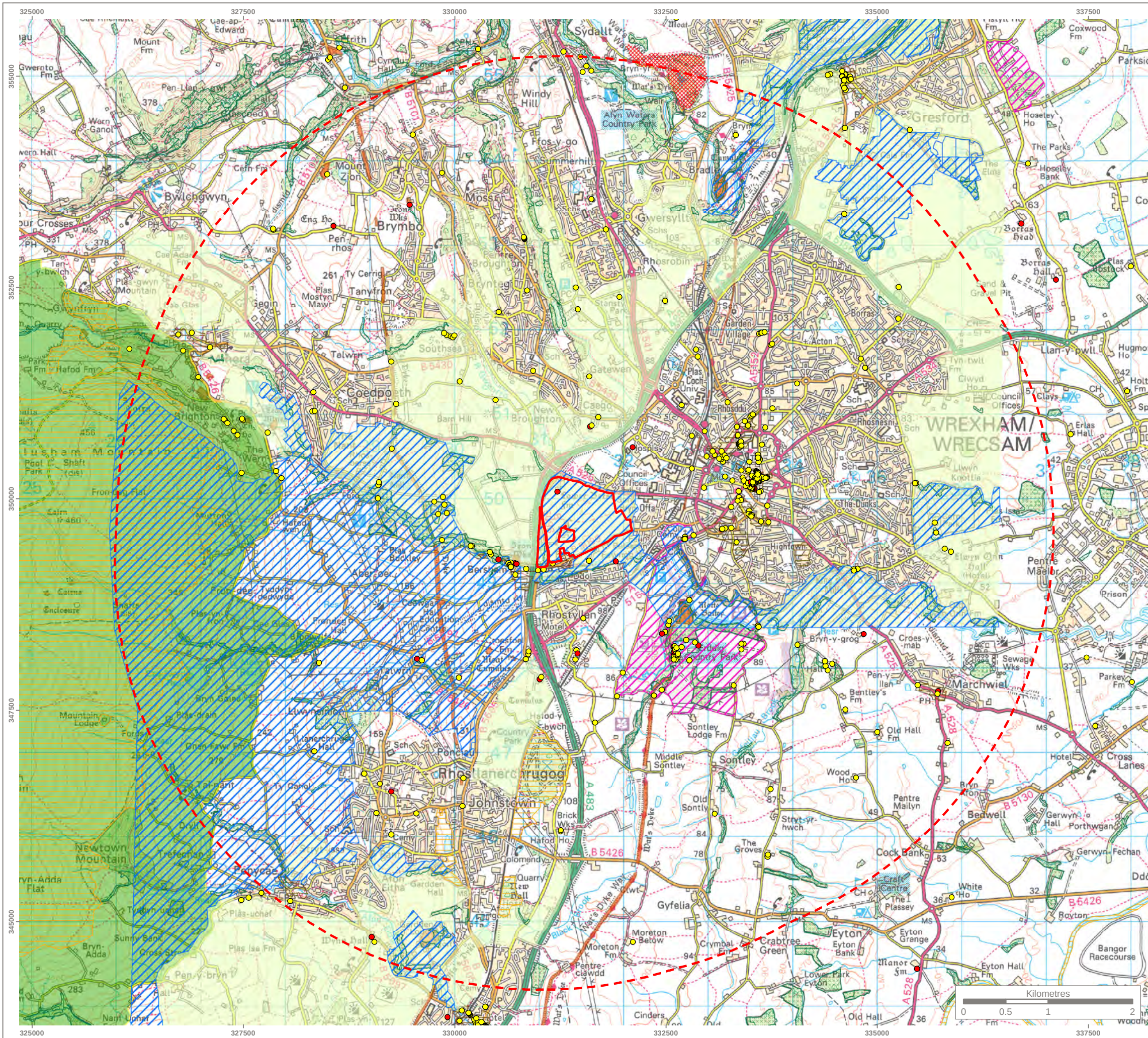
Appendix 7.2: LVIA Figures

Land at Ruthin Road, Wrexham

On behalf of Redrow Homes Ltd

August 2023





KEY

- Site boundary
- Site boundary 5km buffer

Landscape Designations

- Areas of Outstanding Natural Beauty
- Special Landscape Area

Environmental Designations

- Ancient Woodland
- Local Nature Reserve (LNR)
- Special Areas of Conservation (SAC)
- Green Barrier

Historical Designations

- Grade I listed building
- Grade II* listed building
- Grade II listed building
- Conservation Areas
- Scheduled monument
- Registered Historic Parks and Gardens

Note

This map contains data from the following sources:
- Natural England © Natural England copyright [2022]
- Historic England © Historic England copyright [2022]
- Ordnance Survey data © Crown copyright and database right [2022]

Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office.

Contains OS data © Crown Copyright and database right 2022. All rights reserved. Reproduced from Ordnance Survey digital map data © Crown copyright 2022. All rights reserved. Licence number 0100057890

Site Map



Rev	Description	Drawn	Approved	Date



THE ENVIRONMENT PARTNERSHIP

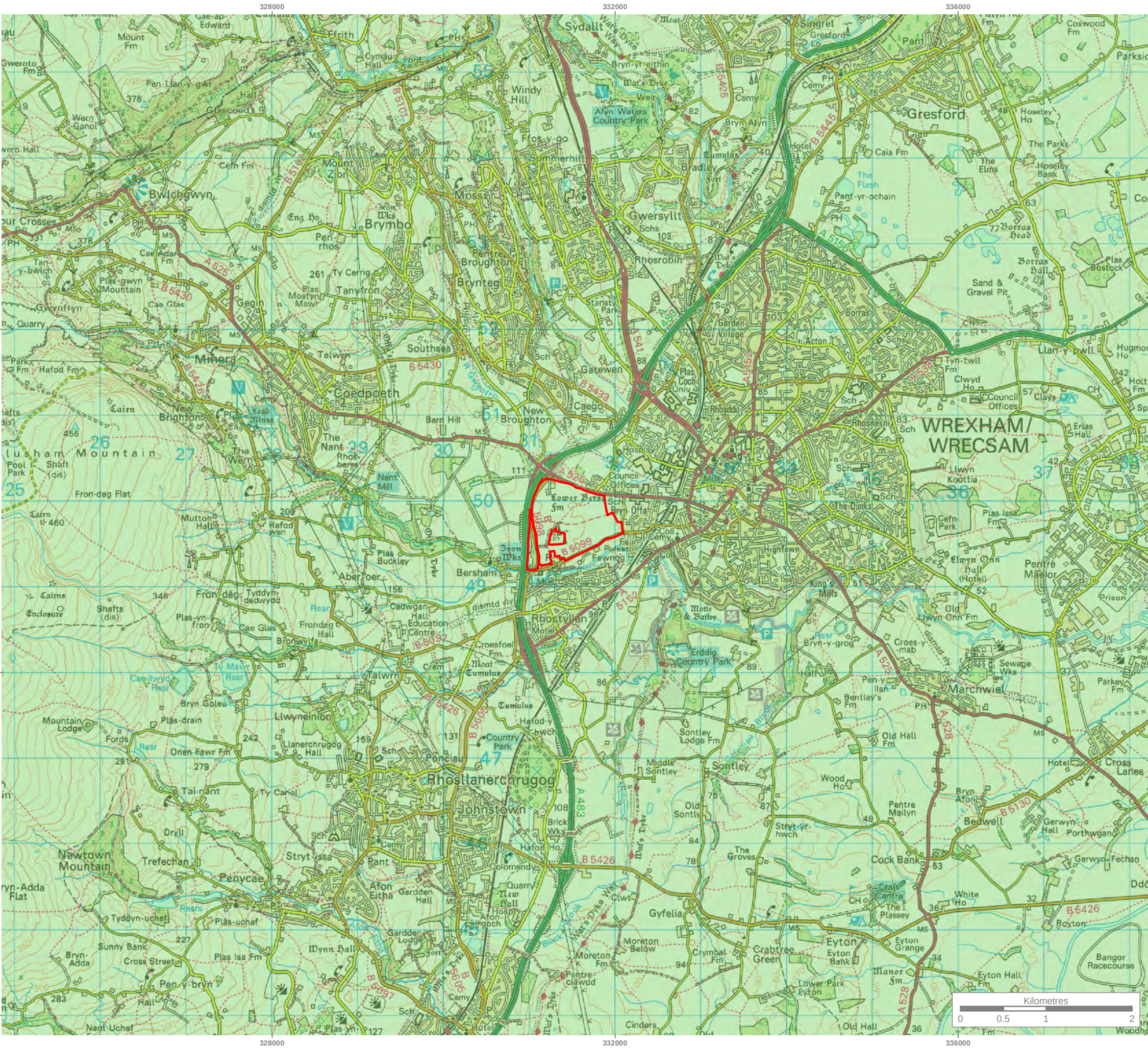
Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
Ruthin Road, Wrexham LVIA

Title
Figure 7.1 - Landscape and Environmental Designations

Drawing Number
G8744.004

Drawn	Checked	Approved	Scale	Date
SA	CW	LF	1:45,000 @ A3	25/11/2022



KEY

 Site boundary

LANDMAP - Landscape Habitats

 Dry (Relatively) Terrestrial Habitats

Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office.
Contains OS data © Crown Copyright and database right 2022. All rights reserved.
Reproduced from Ordnance Survey digital map data © Crown copyright 2022. All rights reserved. Licence number 0100057890



Rev	Description	Drawn	Approved	Date

**THE ENVIRONMENT PARTNERSHIP**

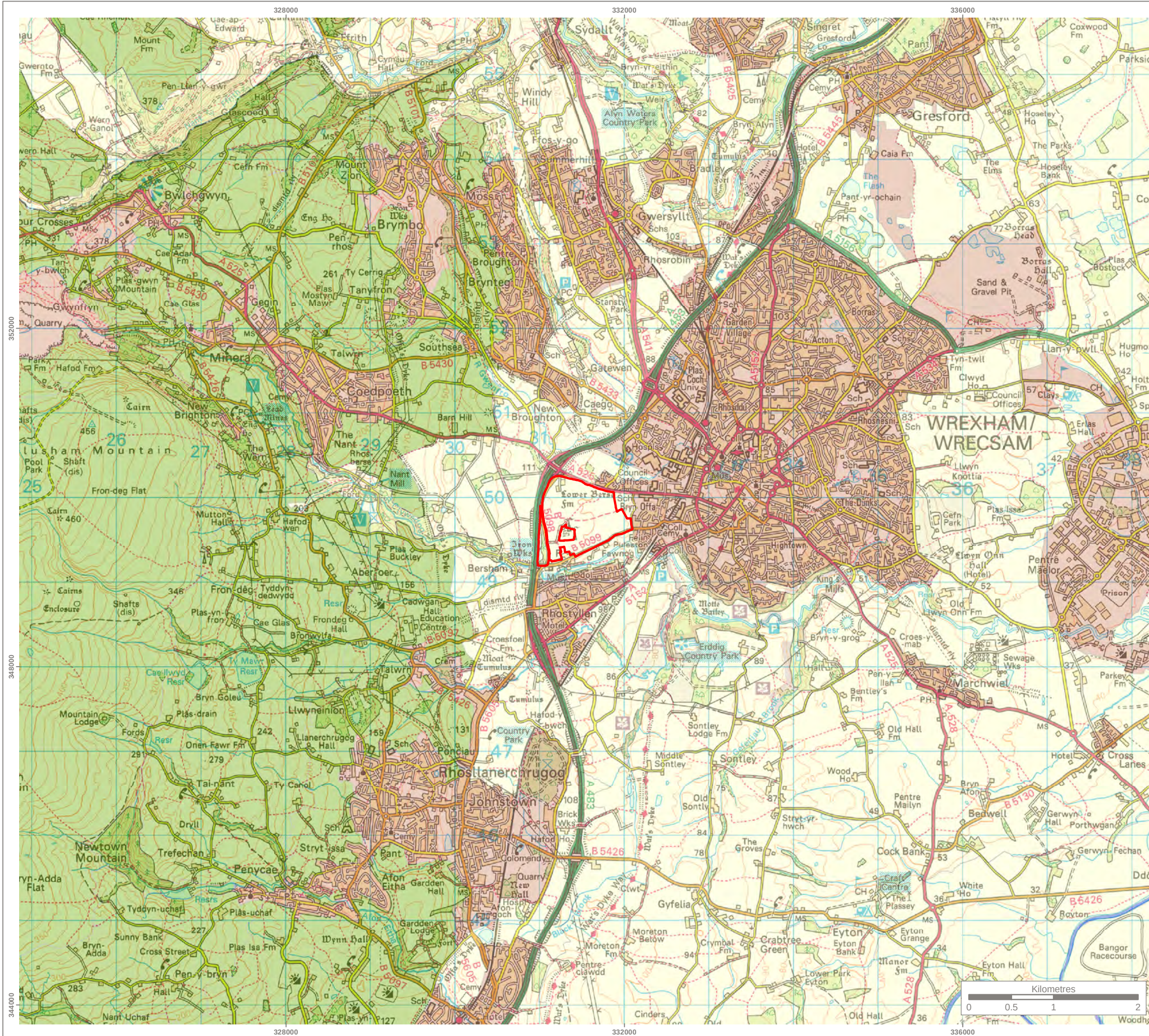
Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
Ruthin Road, Wrexham

Title
Figure 7.3 - LANDMAP - Landscape Habitats

Drawing Number
G8744.006

Drawn	Checked	Approved	Scale	Date
SA	##	LF	1:45,000 @ A3	20/10/2022



KEY

Site boundary

LANDMAP - Visual and Sensory

Development

Lowland

Upland

Water

Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office.

Contains OS data © Crown Copyright and database right 2021. All rights reserved.

Reproduced from Ordnance Survey digital map data © Crown copyright 2021. All rights reserved. Licence number 0100031673



Rev	Description	Drawn	Approved	Date

THE ENVIRONMENT PARTNERSHIP

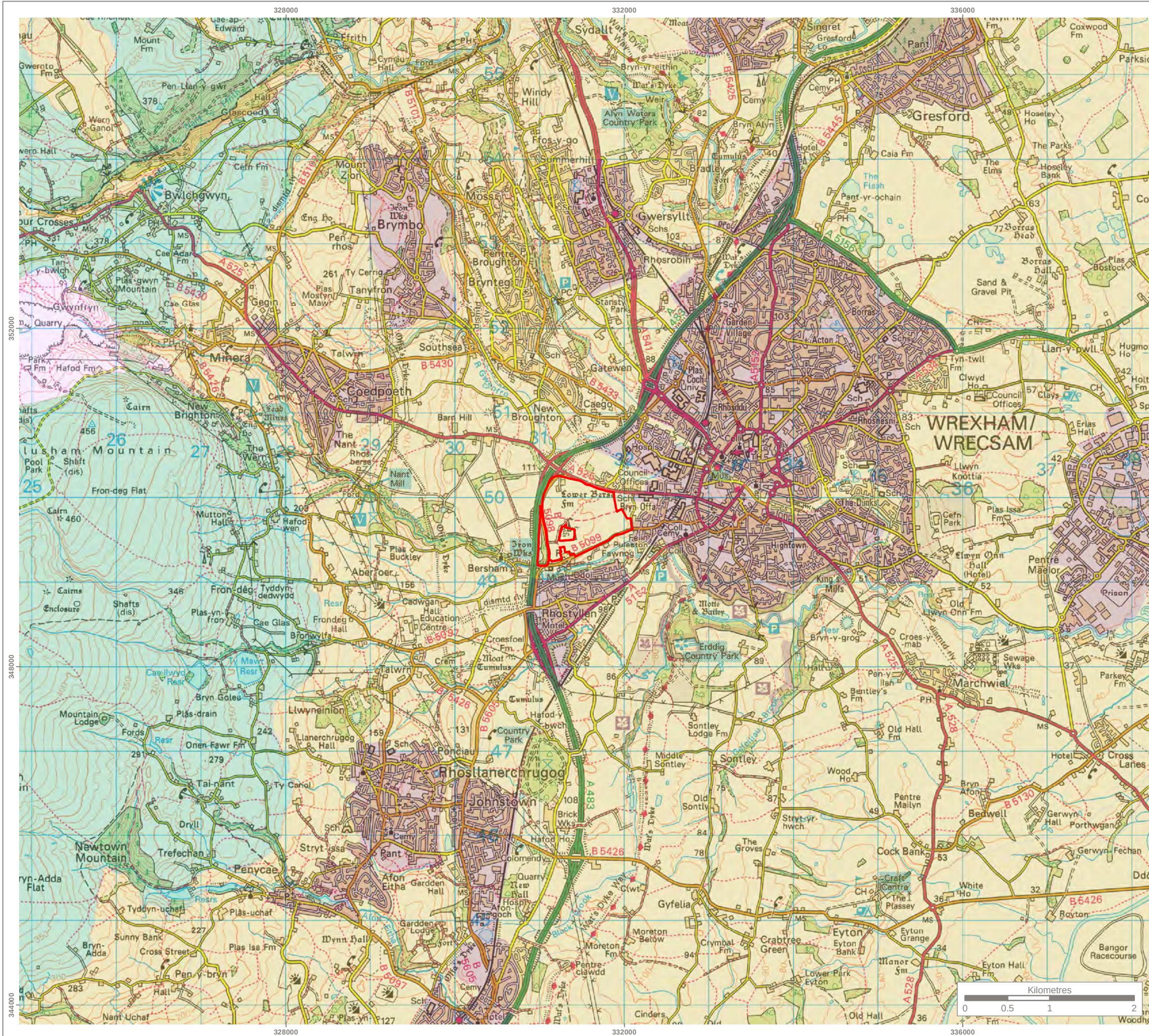
Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
Ruthin Road, Wrexham

Title
Figure 7.4 - LANDMAP - Visual and Sensory

Drawing Number
G8744.007

Drawn	Checked	Approved	Scale	Date
SA	##	LF	1:45,000 @ A3	20/10/2022



KEY

-  Site boundary
- LANDMAP - Geological Landscapes**
 -  Karst
 -  Lowland hills and valleys
 -  Man-made
 -  Mountain and upland valley

Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office.
Contains OS data © Crown Copyright and database right 2022. All rights reserved.
Reproduced from Ordnance Survey digital map data © Crown copyright 2022. All rights reserved. Licence number 0100057890



Site Map



Rev	Description	Drawn	Approved	Date



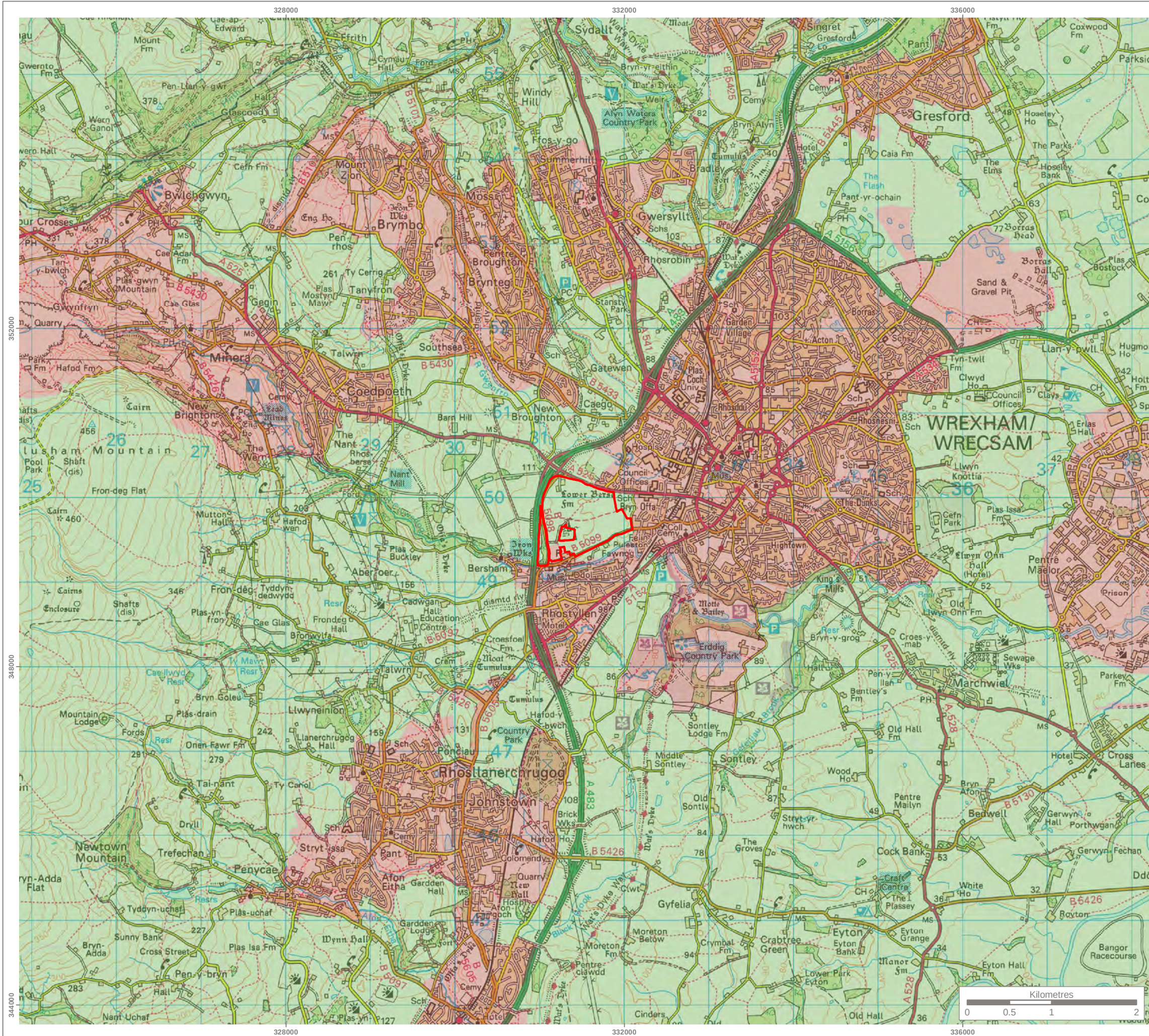
Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
Ruthin Road, Wrexham

Title
Figure 7.5 - LANDMAP - Geological Landscapes

Drawing Number
G8744.008

Drawn	Checked	Approved	Scale	Date
SA	##	LF	1:45,000 @ A3	20/10/2022



KEY

-  Site boundary
- LANDMAP - Historic Landscape**
 -  Built environment
 -  Rural environment

Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office.
Contains OS data © Crown Copyright and database right 2022.
All rights reserved.
Reproduced from Ordnance Survey digital map data © Crown copyright 2022. All rights reserved. Licence number 0100057890



Site Map



Rev	Description	Drawn	Approved	Date



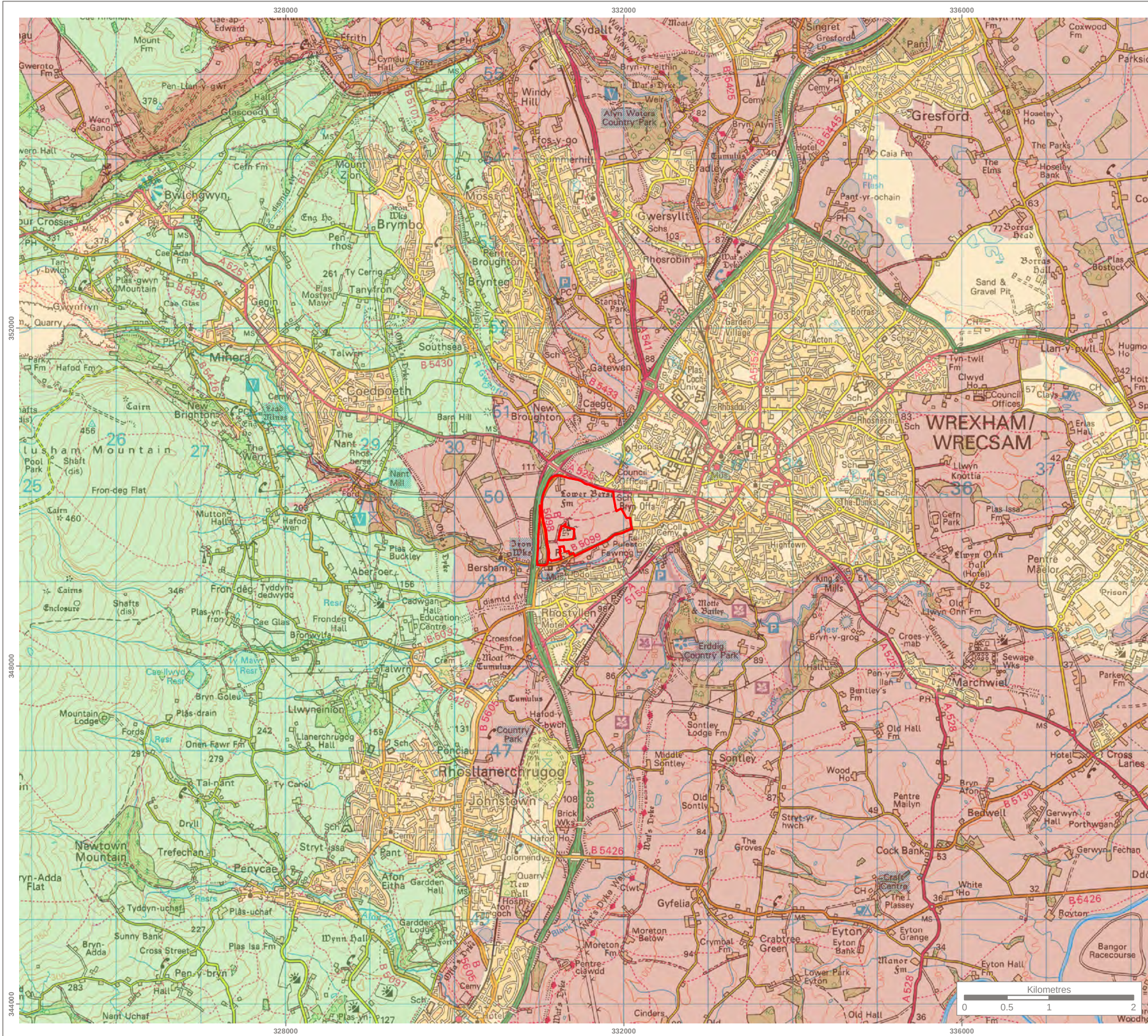
Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
Ruthin Road, Wrexham

Title
Figure 7.6 - LANDMAP - Historic Landscapes

Drawing Number
G8744.009

Drawn	Checked	Approved	Scale	Date
SA	##	LF	1:45,000 @ A3	20/10/2022



KEY

Site boundary

LANDMAP - Cultural Landscape Services

Development

Lowland

Upland

Water

Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office.

Contains OS data © Crown Copyright and database right 2022. All rights reserved. Reproduced from Ordnance Survey digital map data © Crown copyright 2022. All rights reserved. Licence number 0100057890



Site Map



Rev	Description	Drawn	Approved	Date



THE ENVIRONMENT PARTNERSHIP

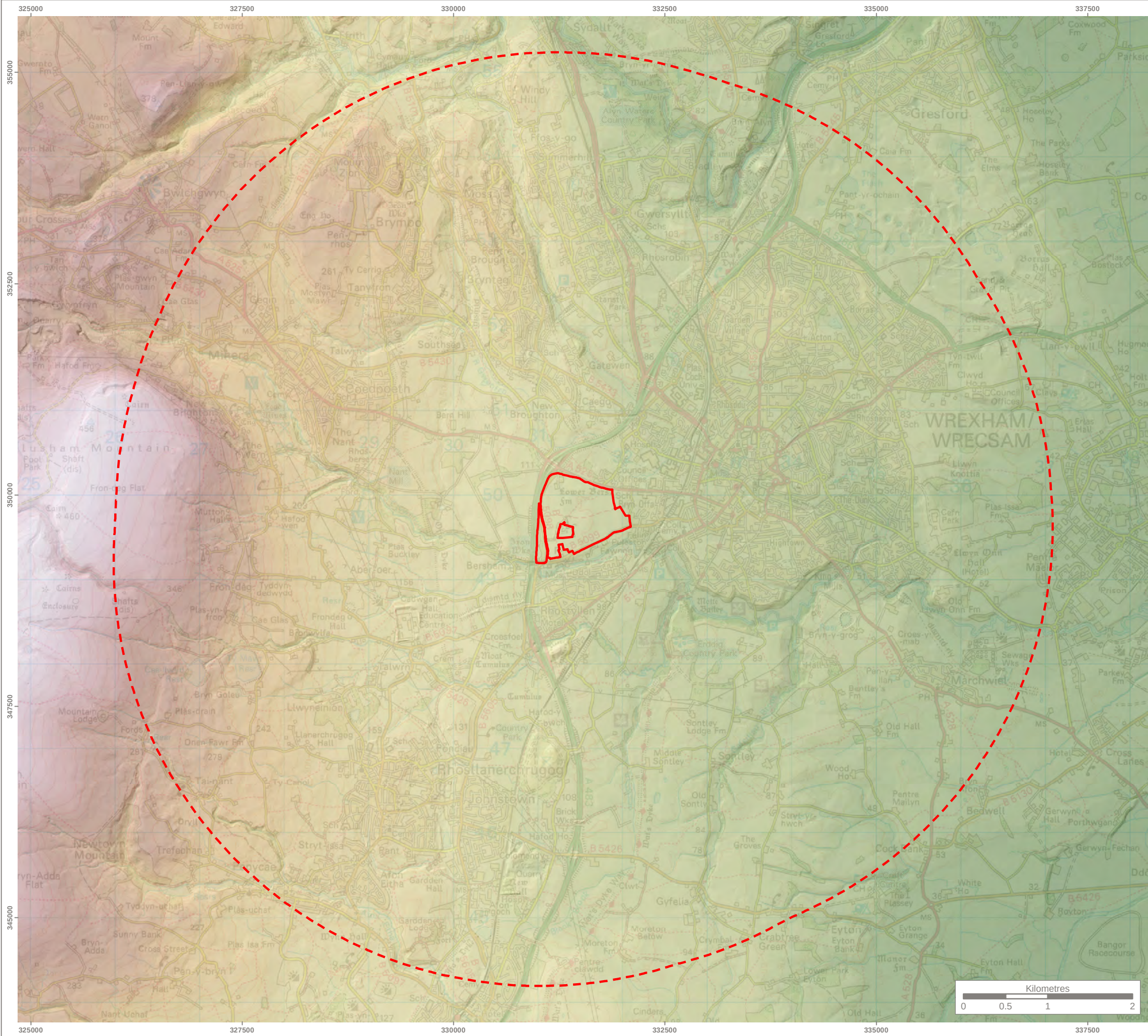
Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
Ruthin Road, Wrexham

Title
Figure 7.7 - LANDMAP - Cultural Landscape Services

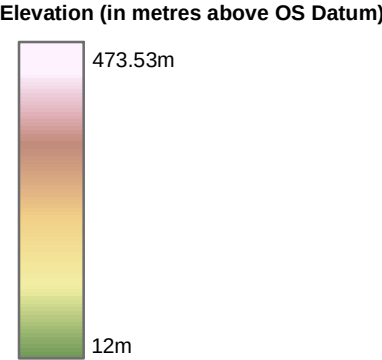
Drawing Number
G8744.010

Drawn	Checked	Approved	Scale	Date
SA	##	LF	1:45,000 @ A3	20/10/2022



KEY

- Site boundary
- Site boundary 5km buffer



DRAFT

Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office.
Contains OS data © Crown Copyright and database right 2022. All rights reserved.
Reproduced from Ordnance Survey digital map data © Crown copyright 2022.
All rights reserved. Licence number 0100057890



Rev	Description	Drawn	Approved	Date

TEP | **THE ENVIRONMENT PARTNERSHIP**

Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
Ruthin Road, Wrexham

Title
Figure 7.8 - Topography

Drawing Number
G8744.011

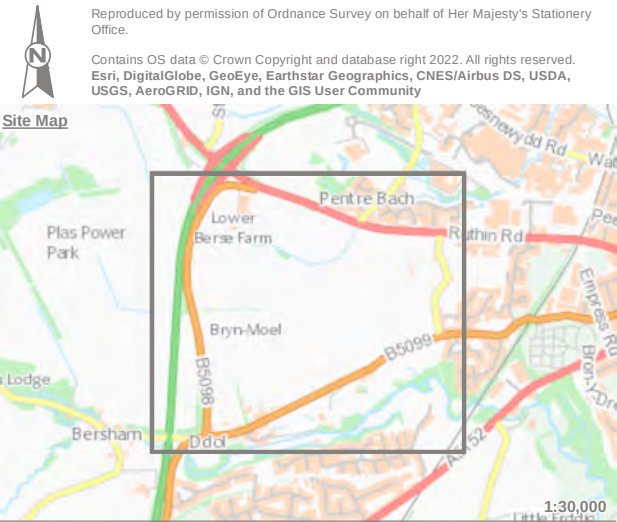
Drawn	Checked	Approved	Scale	Date
SA	##	LF	1:45,000 @ A3	20/10/2022



KEY

Site boundary

Public Right of Way



Rev	Description	Drawn	Approved	Date

TEP

THE ENVIRONMENT PARTNERSHIP

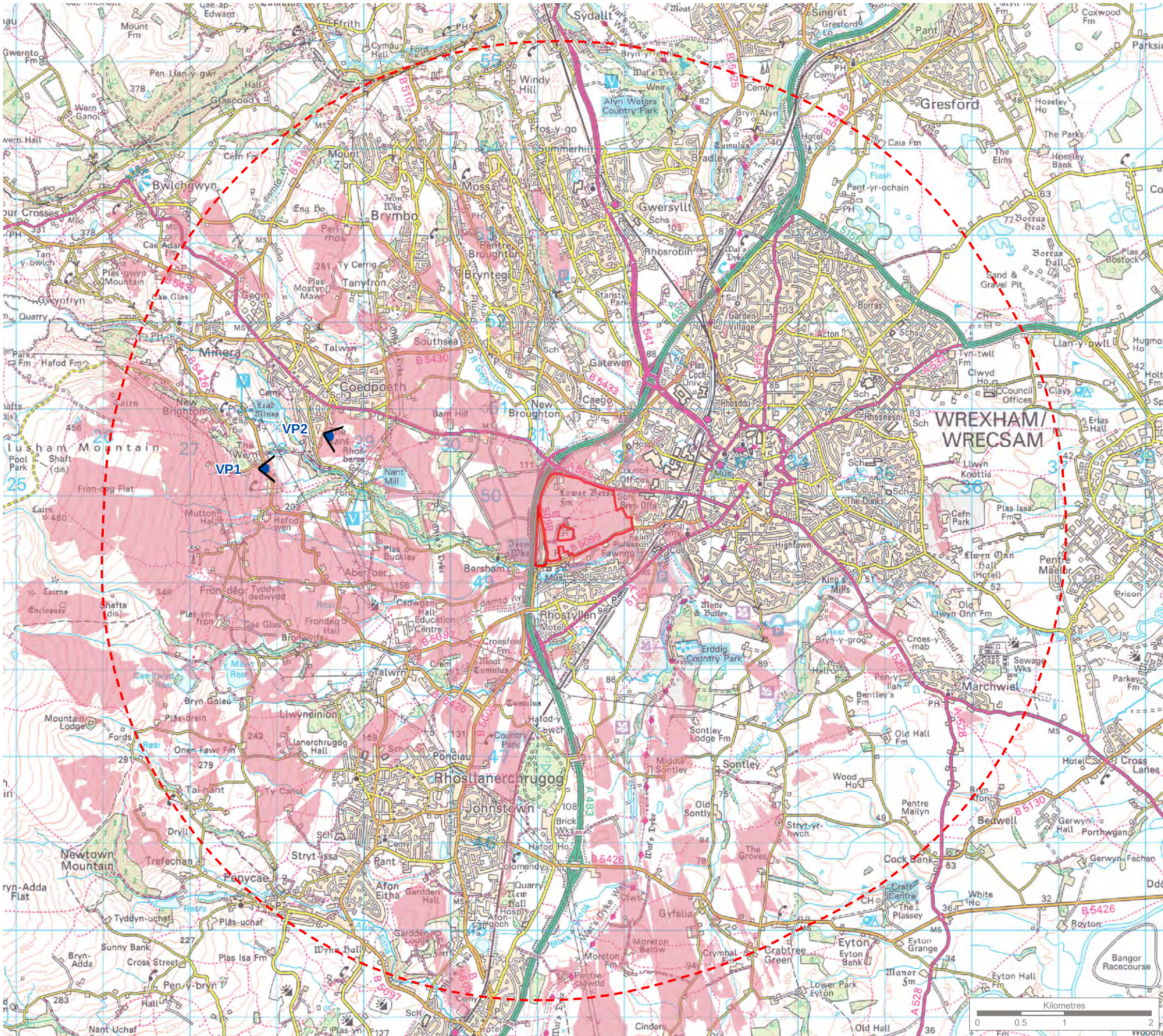
Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
Ruthin Road, Wrexham

Title
Figure 7.9 - Landscape Context

Drawing Number
G8744.012

Drawn	Checked	Approved	Scale	Date
SA	CW	LF	1:4,500 @ A3	25/11/2022



KEY

- Site boundary
- Site boundary 5km buffer
- Area from which the proposed development can theoretically be visible
- VP1 Viewpoint location

Note:

This Zone of Theoretical Visibility (ZTV) has been generated using Esri ArcGIS Spatial Analyst extension. The Digital Terrain Model (DTM) has been derived from OS Terrain 5 dataset with an accuracy in the order of $\pm 2.0\text{m}$. Earth curvature has been included in the ZTV calculation and refraction of light has been applied using ESRI default settings. The ZTV has been generated from a viewing height of 2m above ground level. This falls within recommendations by "Visual Representation of Windfarms" prepared for Scottish Natural Heritage (SNH) July 2014 - Version 2.2.

The ZTV is based on development in the site boundary up to 10m in height. The ZTV shows the screening effect of features within the landscape such as settlements and woodland blocks using a height value of 8m for buildings and 10m for woodland based on OS Map Local Data (February 2018). The ZTV does not account for the localised screening effects of vegetation (i.e. hedgerows, individual trees, small tree groups or shrub) beyond or immediately adjacent to the site.

The ZTV does not show potential visual effects or show likely overall effects. It shows potential theoretical visibility only. The ZTV has been produced for the purpose of informing the selection of assessment viewpoints, and the assessment of effects in conjunction with fieldwork.

Where theoretical visibility is shown, it does not indicate the extent of the development visible. Please refer to page two for further viewpoint locations.

Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office.
Contains OS data © Crown Copyright and database right 2022. All rights reserved.
Reproduced from Ordnance Survey digital map data © Crown copyright 2022.
All rights reserved. Licence number 0100057890



A	PRoW data reprojected and added to key.	AR	LF	08/12/2022
Rev	Description	Drawn	Approved	Date



THE ENVIRONMENT PARTNERSHIP

Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

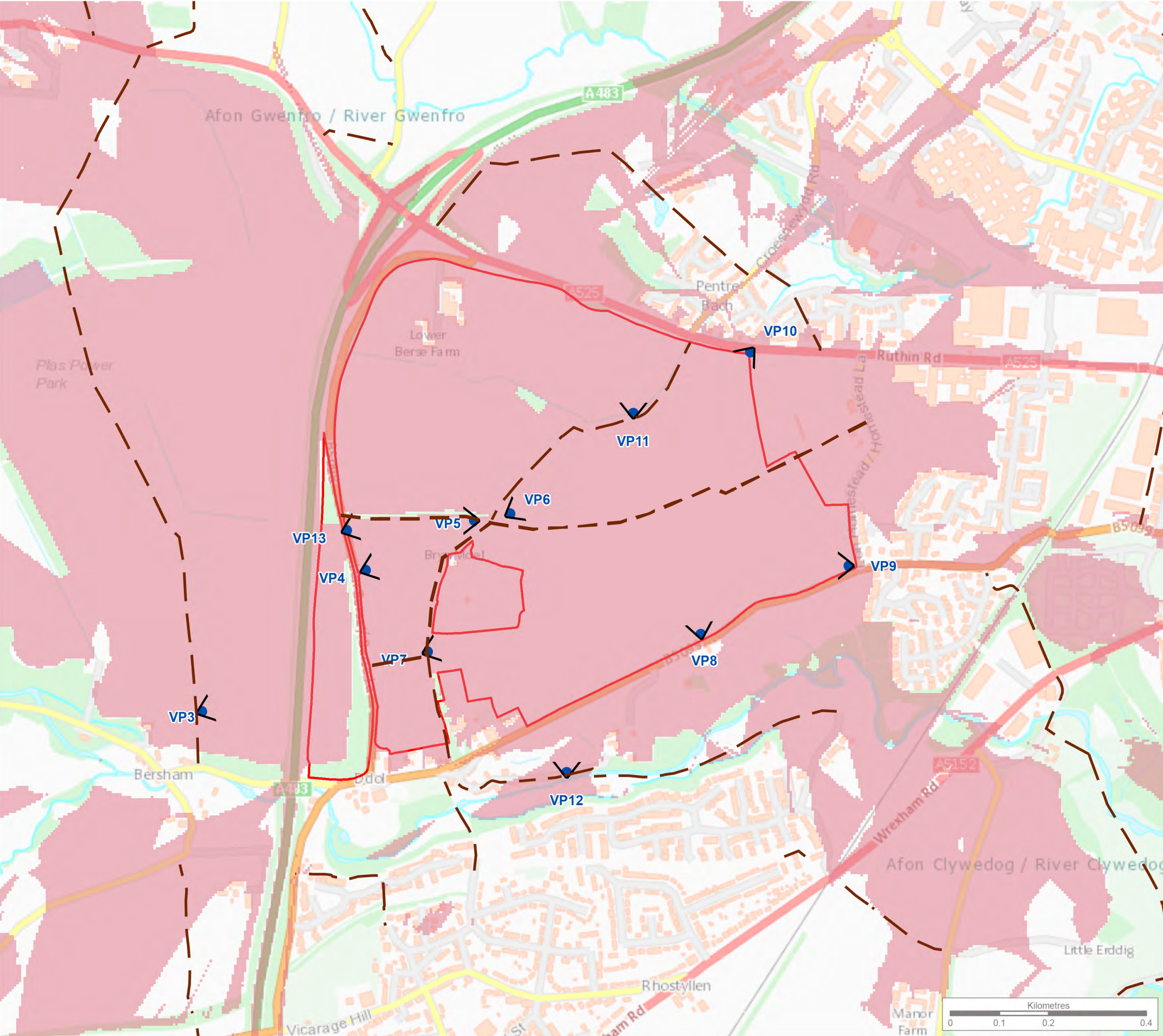
Project
Ruthin Road, Wrexham LVIA

Title
Figure 7.10 - Zone of Theoretical Visibility and Viewpoint Location

Drawing Number
G8744.013A.1

Sheet 1 of 2

Drawn	Checked	Approved	Scale	Date
SA	CW	LF	1:45,000 @ A3	08/12/2022



KEY

Site boundary

Site boundary 5km buffer

Area from which the proposed development can theoretically be visible

Viewpoint location

Public Right of Way

Note:

This Zone of Theoretical Visibility (ZTV) has been generated using Esri ArcGIS Spatial Analyst extension. The Digital Terrain Model (DTM) has been derived from OS Terrain 5 dataset with an accuracy in the order of $\pm 2.0\text{m}$. Earth curvature has been included in the ZTV calculation and refraction of light has been applied using ESRI default settings. The ZTV has been generated from a viewing height of 2m above ground level. This falls within recommendations by "Visual Representation of Windfarms" prepared for Scottish Natural Heritage (SNH) July 2014 - Version 2.2.

The ZTV is based on development in the site boundary up to 10m in height. The ZTV shows the screening effect of features within the landscape such as settlements and woodland blocks using a height value of 8m for buildings and 10m for woodland based on OS Map Local Data (February 2018). The ZTV does not account for the localised screening effects of vegetation (i.e hedgerows, individual trees, small tree groups or shrub) beyond or immediately adjacent to the site.

The ZTV does not show potential visual effects or show likely overall effects. It shows potential theoretical visibility only. The ZTV has been produced for the purpose of informing the selection of assessment viewpoints, and the assessment of effects in conjunction with fieldwork.

Where theoretical visibility is shown, it does not indicate the extent of the development visible. Please refer to page two for further viewpoint locations.

Reproduced by permission of Ordnance Survey on behalf of Her Majesty's Stationary Office.
Contains OS data © Crown Copyright and database right 2022. All rights reserved.
Reproduced from Ordnance Survey digital map data © Crown copyright 2022.
All rights reserved. Licence number 0100057890

A	PRoW data reprojected and added to key.	AR	LF	08/12/2022
Rev	Description	Drawn	Approved	Date

TEP

THE ENVIRONMENT PARTNERSHIP

Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
Tel 01925 844004 e-mail tep@tep.uk.com www.tep.uk.com

Project
Ruthin Road, Wrexham LVIA

Title
Figure 7.10 - Zone of Theoretical Visibility and Viewpoint Location

Drawing Number G8744.013A.2	Sheet 2 of 2
--------------------------------	--------------

Drawn SA	Checked CW	Approved LF	Scale 1:8,000 @ A3	Date 08/12/2022
-------------	---------------	----------------	-----------------------	--------------------



Project : Ruthin Road, Wrexham
Figure Number: 7.11 - Viewpoint 1 Winter
Drawing Number: IN8744.001 - Sheet 1 of 23

Visualisation Type : Type 1
Time and Date: 30/03/2021 Time:14:05
Camera and Lens Type: Nikon D70, CFS, Nikon lens set to 35mm

Approximate Field of View: 39.6° x 27°
Display Size: 100% @ A3
Viewing Distance and Projection: Comfortable arms length. Planar.



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com



Project : Ruthin Road, Wrexham
Figure Number: 7.12 - Viewpoint 1 Summer
Drawing Number: IN8744.001 - Sheet 2 of 23

Visualisation Type : Type 1
Time and Date: 13/10/2022 Time: 13:22
Camera and Lens Type: Canon Eos 5D FFS 50mm Prime lens

Approximate Field of View: 39.6° x 27°
Display Size: 100% @ A3
Viewing Distance and Projection: Comfortable arms length. Planar.



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com





Project : Ruthin Road, Wrexham
Figure Number: 7.14 - Viewpoint 2 Summer
Drawing Number: IN8744.001 - Sheet 4 of 23

Visualisation Type : Type 1
Time and Date: 13/10/2022 Time: 13:08
Camera and Lens Type: Canon Eos 5D FFS 50mm Prime lens

Approximate Field of View: 39.6° x 27°
Display Size: 100% @ A3
Viewing Distance and Projection: Comfortable arms length. Planar.



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com



Approximate Horizontal Extent of the Site





Approximate Horizontal Extent of the Site



Approximate Horizontal Extent of the Site



Project : Ruthin Road, Wrexham
Title: Photosheets - Type 1
Figure Number: 7.19 - Viewpoint 5 Winter
Drawing Number: IN8744.001 - Sheet 9 of 23

Visualisation Type : Type 1
Time and Date: 30/03/2021 Time:10:53
Camera and Lens Type: Nikon D70, 35mm (equivalent to 50mm on full frame sensor)

FoV and Display Size: FoV: 90° x 27° (Baseline) 96%
Viewing Distance and Projection: Comfortable arms length. Cylindrical



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com



Approximate Horizontal Extent of the Site

Project : Ruthin Road, Wrexham
Title: Photosheets - Type 1
Figure Number: 7.20 - Viewpoint 5 Summer
Drawing Number: IN8744.001 - Sheet 10 of 23

Visualisation Type : Type 1
Time and Date: 13/10/2022 Time: 12:22
Camera and Lens Type: Canon Eos 5D FFS 50mm Prime lens

FoV and Display Size: FoV: 90° x 27° (Baseline) 96%
Viewing Distance and Projec- tion:: Comfortable arms length. Cylindrical



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com



Project : Ruthin Road, Wrexham
Title: Photosheets - Type 1
Figure Number: 7.21 - Viewpoint 6 Winter
Drawing Number: IN8744.001 - Sheet 11 of 23

Visualisation Type : Type 1
Time and Date: 30/03/2021 Time:10:55
Camera and Lens Type: Nikon D70, 35mm (equivalent to 50mm on full frame sensor)

FoV and Display Size: FoV: 90° x 27° (Baseline) 96%
Viewing Distance and Projection: Comfortable arms length. Cylindrical



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com





Project : Ruthin Road, Wrexham
Title: Photosheets - Type 1
Figure Number: 7.23 - Viewpoint 7 Winter
Drawing Number: IN8744.001 - Sheet 13 of 23

Visualisation Type : Type 1
Time and Date: 30/03/2021 Time: 11:44
Camera and Lens Type: Nikon D70, 35mm (equivalent to 50mm on full frame sensor)

FoV and Display Size: FoV: 90° x 27° (Baseline) 96%
Viewing Distance and Projection: Comfortable arms length. Cylindrical



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com



Approximate Horizontal Extent of the Site

Project : Ruthin Road, Wrexham
Title: Photosheets - Type 1
Figure Number: 7.24 - Viewpoint 7 Summer
Drawing Number: IN8744.001 - Sheet 14 of 23

Visualisation Type : Type 1
Time and Date: 13/10/2022 Time: 12:14
Camera and Lens Type: Canon Eos 5D FFS 50mm Prime lens

FoV and Display Size: FoV: 90° x 27° (Baseline) 96%
Viewing Distance and Projection: Comfortable arms length. Cylindrical



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com



Approximate Horizontal Extent of the Site

Project : Ruthin Road, Wrexham
Title: Photosheets - Type 1
Figure Number: 7.25 - Viewpoint 8 Winter
Drawing Number: IN8744.001 - Sheet 15 of 23

Visualisation Type : Type 1
Time and Date: 30/03/2021 Time: 11:55
Camera and Lens Type: Nikon D70, 35mm (equivalent to 50mm on full frame sensor)

FoV and Display Size: FoV: 90° x 27° (Baseline) 96%
Viewing Distance and Projection: Comfortable arms length. Cylindrical



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com



Approximate Horizontal Extent of the Site

Project : Ruthin Road, Wrexham
Title: Photosheets - Type 1
Figure Number: 7.26 - Viewpoint 8 Summer
Drawing Number: IN8744.001 - Sheet 16 of 23

Visualisation Type : Type 1
Time and Date: 13/10/2022 Time: 11:42
Camera and Lens Type: Canon Eos 5D FFS 50mm Prime lens

FoV and Display Size: FoV: 90° x 27° (Baseline) 96%
Viewing Distance and Projection: Comfortable arms length. Cylindrical



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com



Project : Ruthin Road, Wrexham
Title: Photosheets - Type 1
Figure Number: 7.27 - Viewpoint 9 Winter
Drawing Number: IN8744.001 - Sheet 17 of 23

Visualisation Type : Type 1
Time and Date: 30/03/2021 Time: 15:33
Camera and Lens Type: Nikon D70, 35mm (equivalent to 50mm on full frame sensor)

FoV and Display Size: FoV: 90° x 27° (Baseline) 96%
Viewing Distance and Projection: Comfortable arms length. Cylindrical



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com



Approximate Horizontal Extent of the Site

Project : Ruthin Road, Wrexham
Title: Photosheets - Type 1
Figure Number: 7.28 - Viewpoint 9 Summer
Drawing Number: IN8744.001 - Sheet 18 of 23

Visualisation Type : Type 1
Time and Date: 13/10.2022 Time: 11:27
Camera and Lens Type: Canon Eos 5D FFS 50mm Prime lens

FoV and Display Size: FoV: 90° x 27° (Baseline) 96%
Viewing Distance and Projection: Comfortable arms length. Cylindrical



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com



Project : Ruthin Road, Wrexham
Title: Photosheets - Type 1
Figure Number: 7.29 - Viewpoint 10 Winter
Drawing Number: IN8744.001 - Sheet 19 of 23

Visualisation Type : Type 1
Time and Date: 30/03/2021 Time: 11:12
Camera and Lens Type: Nikon D70, 35mm (equivalent to 50mm on full frame sensor)

FoV and Display Size: FoV: 90° x 27° (Baseline) 96%
Viewing Distance and Projection: Comfortable arms length. Cylindrical



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com



Project : Ruthin Road, Wrexham
Title: Photosheets - Type 1
Figure Number: 7.30 - Viewpoint 10 Summer
Drawing Number: IN8744.001 - Sheet 20 of 23

Visualisation Type : Type 1
Time and Date: 13/10/2022 Time: 11:09
Camera and Lens Type: Canon Eos 5D FFS 50mm Prime lens

FoV and Display Size: FoV: 90° x 27° (Baseline) 96%
Viewing Distance and Projection: Comfortable arms length. Cylindrical



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com



Project : Ruthin Road, Wrexham
Title: Photosheets - Type 1
Figure Number: 7.31 - Viewpoint 11 Summer
Drawing Number: IN8744.001 - Sheet 21 of 23

Visualisation Type : Type 1
Time and Date: 13/10/2022 Time:
Camera and Lens Type: Canon Eos 5D FFS 50mm Prime lens

FoV and Display Size: FoV: 90° x 27° (Baseline) 96%
Viewing Distance and Projection: Comfortable arms length. Cylindrical



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com



Approximate Horizontal Extent of the Site



Approximate Horizontal Extent of the Site

Project : Ruthin Road, Wrexham
Title: Photosheets - Type 1
Figure Number: 7.33 - Viewpoint 13 Summer
Drawing Number: IN8744.001 - Sheet 23 of 23

Visualisation Type : Type 1
Time and Date: 13/10/2022 Time: 11:09
Camera and Lens Type: Canon Eos 5D FFS 50mm Prime lens

FoV and Display Size: FoV: 90° x 27° (Baseline) 96%
Viewing Distance and Projection: Comfortable arms length. Cylindrical



Genesis Centre
Birchwood Science Park, Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com