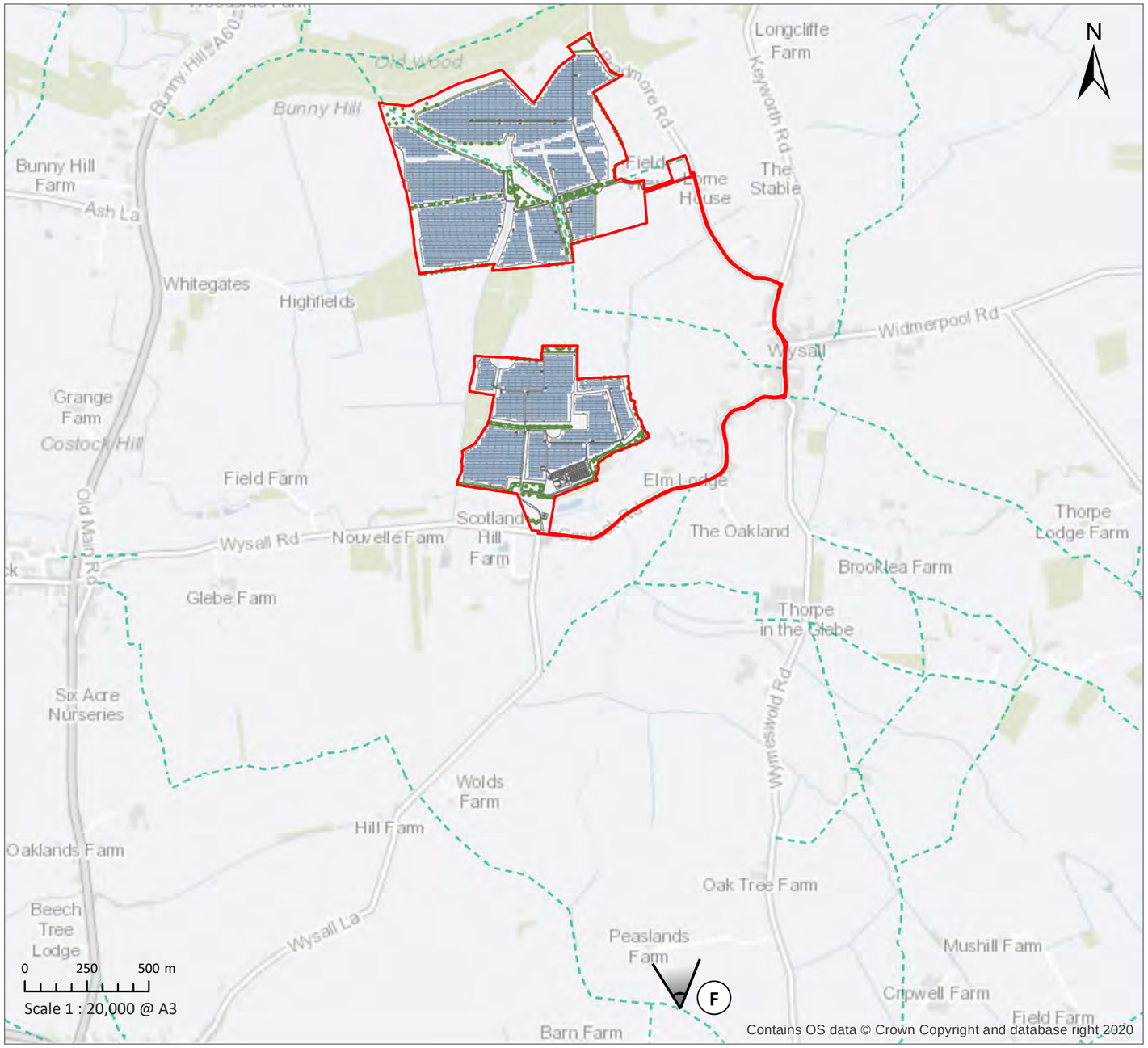
7.0 Viewpoint F Data Sheet

Viewpoint location plan



Viewpoint F tripod location

View information

Visualisation Type:	4
Projection:	Cylindrical
Enlargement Factor:	150%
Date & time of photo:	01/08/2024 @ 10:21
Camera/sensor:	Canon EOS 6D Mk II
Camera lens:	50mm fixed
Camera height:	1.6m
Max aperture:	F13
HFoV:	53.5°
Distance to site:	2.1km
Direction:	354° from north
Frame Type:	Panorama
Viewpoint location:	E: 460047 N: 324627
Viewpoint ground height:	90 m AOD
Sheet size:	A1
Weather:	Sunny intervals
Visibility:	Good
Page viewing distance:	400mm (comfortable arms length)

Viewpoint description

View from PRoW LT||H62/1 footpath looking north

Please note: To view this image digitally, calibrate this scale bar on screen, for a correct scale representation, view the printed A1 sheet at a comfortable arm's length

Viewpoint F Existing View

All scale representative views to be viewed at a comfortable arms length

Please note: To view this image digitally, calibrate this scale bar on screen, for a correct scale representation, view the printed A1 sheet at a comfortable arm's length

Viewpoint F Proposed View Year 1

All scale representative views to be viewed at a comfortable arms length

Please note: To view this image digitally, calibrate this scale bar on screen, for a correct scale representation, view the printed A1 sheet at a comfortable arm's length

Viewpoint F Proposed View Year 15

All scale representative views to be viewed at a comfortable arms length

8.0 Methodology

8.1. The purpose of the visual representations is to accurately and objectively demonstrate the proposed development in-situ, using standardised and best practice guidelines. This is to aid and facilitate in the planning and decision-making process.

8.2. The following information is true, and has been prepared and provided in accordance with the current professional guidelines*

8.3. The viewpoint photographs panoramas and camera GPS locations were created by FTR Visuals in consultation with Exagen.

8.4. The following visualisations are based on Exagen's 'Site Layout Plan' drwg No WLL02A-EXG-04-00-D-K001-P05, detail plans & elevations drwg Nos WLL02A-EXG-05-ZZ-D-(K001-K013)-P01 and Pegasus' Group 'Landscape Strategy' drwg no P21-2533_EN_06E.

Site photography & equipment

- SONY ILCE-7M4
- Sigma 50mm f/1.4 DG HSM Art Lens for Sony
- GPS: Iphone 15- App: GPS OS
- Tripod: ARTCISE AS80C 63.8",Carbon Fiber Bowl Tripod.
- Panoramic Tripod Head: Andoer
- Precision Leveller: Andoer LP-64
- L-Bracket: Pig Iron LB-1
- Slide Plate: MENGS FNR-200 200mm 1/4''
- Quick Release Plate Clamp: Sequpr 50mm

Site verified photography

8.5. Using the Pegasus Group LVIA baseline viewpoints as a reference point, the camera body and lens were attached to a panoramic head with a leveller. A tripod was used and set to a height of 1.6m to represent the average height of the human eye. A fixed 50mm lens was used to ensure a consistent 50mm focal length across all photographs. 50mm is the industry standard for the visual representation of a development. 50mm has been chosen as the focal length which closely matches human eyesight and minimising optical distortion (please read the Landscape Institutes' guidance for more information)

8.6. Photographs were taken on 'Raw' and the camera metadata is stored with each photo. The photographs taken from the site visit were stitched together in PTGui to create the panoramas using the cylindrical layout method.

*Landscape Institute (LI) Technical Guidance Note 06/19 'Visual Representation of Development Proposals'.

Modelling & visualisation production process

8.7. The photographs taken from the site visit were stitched together in Photoshop to create the panoramas using the cylindrical layout method.

8.8. An accurate geo-referenced 3D model was created by precisely combining the information mentioned in paragraph 8.4 with 1m LiDAR DSM (Digital Surface Model) terrain, a topographic survey (dwg No WLL02A- K- TopographicSurvey 3D_levels) and high resolution aerial photography into one universal 3D model.

8.9. FTR Visuals provided a Excel spreadsheet containing the viewpoint photograph coordinates (0134_ Old Wood Energy Park.xlsx), these were input into the 3D model space using the OS British National Grid system (OS GB 1936). Virtual 'cameras' were then created and aligned to these coordinates, replicating the position, focal length/field of view and elevation of the original viewpoint photographs.

8.10. Common reference points were then added to the model. These reference points locate elements that can be seen in the view such as; existing building corners, roof apexes and lampposts. This method was used to aid in aligning the model to the real photographic image and to further increase the accuracy of the proposal's scale and position.

8.11. Exagen's Exagen's 'Site Layout Plan' drwg No WLL02A-EXG-04-00-D-K001-P05 provided the development parameters and the FFL's were based on existing site levels.

8.12. Typical material solar PV finishes were applied to the 3D model. These materials and textures were applied using Sketchup, Vray and 3Ds Max software. This rendering system also incorporates realistic lighting, by matching the same date, time of day and weather conditions as the viewpoint photographs. The resolution of the rendered image was matched to that of the viewpoint photographs, to allow for direct overlay, without further size adjustment.

8.13. At post-production stage, Photoshop software was used to allow for fine tuning of the integration of the proposed rendered image into the viewpoint photograph. This was where masking of the proposal, by existing obscuring features (including foreground vegetation and buildings) occurred.

Reproduction

8.14. Due to the proximity of the views, the linear nature of the development and to capture enough context, A1 paper size was selected.

8.15. For these visual representations, the printed result allows for the viewer to make direct comparisons between the proposed viewpoint visualisations and the real-life existing view. This can be achieved by standing in-situ at the relevant viewpoint location and holding up the printed images at a comfortable arm's length. Please be sure the printed image is to scale

8.16. Each viewpoint is supplied with a viewpoint map, tripod location and the following metadata:

- Visualisation Type
- Projection
- Enlargement Factor
- Date & time of photo
- Camera/sensor
- Camera lens
- Camera height
- Max aperture
- HFoV
- Distance to site
- Direction
- Frame Type
- Viewpoint location
- Viewpoint ground height
- Sheet size
- Weather
- Visibility
- Page viewing distance

Limitations

8.17. TGN-06-19 Para 1.2.13 page 2 of 58 ''*Two-dimensional visualisations, however detailed and sophisticated, can never fully substitute what people would see in reality. They should, therefore, be considered an approximation of the three-dimensional visual experiences that an observer might receive in the field.*''

8.18. Photograph locations were not surveyor measured as this was not considered proportionate.

8.19. The following visualisations are based on the layout submitted with the planning application and this may not be the same as the final as built design

9.0 Technical Methodology

Visualisation Types 1	2	3	4	Photography	Responses
✓	✓	✓	✓	Visualisation Types Methodology	Yes- see page viewpoint location plan and view information page prior to visualisations.
		✓	✓	Method used to establish the camera location (e.g. handheld GPS/GNSS, GNSS/RTK, survey point, visual reference)	GPS: Iphone 15- App: GPS OS
		✓	✓	Likely level of accuracy of location (#m, #cm etc)	≤ 1m
		✓	✓	If lenses other than 50mm have been used, explain why a different lens is appropriate	N/A
			✓	Written description of procedures for image capture and processing	Yes- see section 8.0 Methodology
			✓	If panoramas used: make and type of Pano head and equipment used to level head	Panoramic Tripod Head: Andoer, Precision Leveller: Andoer LP-64
			✓	If working outside the UK, geographic co-ordinate system (GCS) used (e.g. WGS-84)	N/A
				3D Model / Visualisation	
		✓	✓	Source of topographic height data and its resolution	LiDAR 1m DSM (Digital Surface Model) and a topographical survey.
		✓	✓	How have the model and the camera locations been placed in the software?	Point coordinates added to geo-referenced dwg file containing topo survey and proposed layout. Points loaded into 3D program and camera added to points.
			✓	Elements in the view used as target points to check the horizontal alignment	Multiple existing features in photograph/view matched to topo plan, used a reference points/markers, camera automatically set to level horizontally
			✓	Elements in the view used as target points to check the vertical alignment	Multiple existing features in photograph/view are matched to topo plan, used a reference points/ markers, camera automatically set to level vertical alignment
				Generally	
✓		✓	✓	Any limitations in the overall methodology for preparation of the visualisations?	The visual representations are based on an outline planning layout rather than a fully detailed scheme.

Visualisation Types				Photography	Responses
1	2	3	4		
✓	✓	✓	✓	Visualisation Type	Type 4
		✓	✓	Projection	Cylindrical (A1 panoramas)
		✓	✓	Enlargement factor for intended sheet size	96% and 150% (A1 panoramas)
		✓	✓	Date and Time of captured photography	Dates & times vary, see view information page prior to visualisations
			✓	Make and model of camera, and its sensor format	Camera models vary, see view information page prior to visualisations
			✓	Make, focal length of the camera lens(es) used.	Sigma 50mm f/1.4 DG HSM Art Lens for Sony and Canon EF 50mm f/1.8 fixed lens
			✓	Horizontal Field of View (HFoV) of photograph / visual	90° and 53.5°(A1 panoramas)
		✓	✓	Direction of View: bearing from North (0°) or Compass Direction	Bearings vary, see view information page prior to visualisations
		✓	✓	Camera location grid coordinates: eastings & northings to relevant accuracy; height of ground in mAOD	See view information page prior to visualisations
			✓	Distance to the nearest site boundary, or key development feature, as most appropriate.	See view information page prior to visualisations
			✓	Height of the camera lens above ground level and, if above 1.65m or below 1.5m, why?	1.6m
				Additional imagery	
✓		✓	✓	Baseline photograph	Existing view / baseline photograph included prior to visualisations
			✓	A composite view generated by overlaying multiple layers of image data: the photograph, 3D model of terrain (LiDAR DTM) and / or 3D model of LiDAR DSM, 3D model of proposed development, 3D model of landscape mitigation. This can explain how the photomontage has been generated.	Included to generate the visualisations
			✓	A photograph of the tripod location to confirm the camera / tripod location	Yes- see page viewpoint location plan and tripod location prior to visualisations

10.0 Appendix A

KEY

CONSTRAINTS/ FEATURES

- Site Boundary
- Existing Overhead Power Lines
- Public Right of Way
- Existing vegetation with RPA retained and maintained to existing levels
- Existing vegetation to be removed
- Existing watercourse
- Existing Road/ Access Track

HARD LANDSCAPE PROPOSALS

- Deer Fence
- Palisade Fence
- Solar Panel Tables
- Access Track
- Central Inverter
- Battery Storage Containers
- Battery Storage Inverter
- Auxillary Transformer
- Solar Connection Infrastructure
- CCTV / Lighting Post
- Grid connection cable route

SOFT LANDSCAPE PROPOSALS

- **Proposed New Hedgerow Planting** Generally maintained at c. 3m height
- **Proposed Copse Planting** including scattered small scale individual trees amongst matrix of tree and understorey shrub planting
- **Proposed Woodland Planting** including scattered large scale individual trees amongst matrix of tree and understorey shrub planting
- **Proposed Native Large Scale Tree Planting** (Field Maple & English Oak)
- **Proposed Native Small Scale Tree Planting** (Hazel & Hawthorn)
- **Proposed Willow Tree Planting Along Watercourse**
- **Grazing Seed Mix to Fenced Solar Panel Areas** e.g. Emorsgate EG26 – Standard Old Fashioned Grazing Mixture or similar sown at 4g/m2
- **Wildflower Meadow Mix** e.g EM2 Standard General Purpose Meadow Mixture or similar sown at 4g/m2
- **Wet Meadow Grassland** e.g. Emorsgate EM8 – Meadow Mixture for Wetlands or similar sown at 4g/m2
- **Proposed Skylark Mitigation Plot** Retained arable land managed for nesting skylark

PROPOSED PLANTING SCHEDULE

PROPOSED TREE PLANTING

Species	Common Name	Girth (cm)	Height (cm)	Form	Root condition
Acer campestre	Field Maple	6-8	250-300	2x; Light Standard; Clear Stem 150-175cm; 3 breaks	B
Corylus avellana	Hazel	-	200-250	2x; Feathered; 5 breaks	B
Crataegus monogyna	Hawthorn	-	200-250	2x; Feathered; 5 breaks	B
Quercus robur	English Oak	6-8	250-300	2x; Light Standard; Clear Stem 150-175cm; 3 breaks	B
Salix fragilis	Crack willow	6-8	250-300	2x; Light Standard; Clear Stem 150-175cm; 3 breaks	B

PROPOSED WOODLAND PLANTING

Trees to be planted at 1.8m centres (0.3/m2), shrubs to be planted at 1.2m centres (0.7/m2)

Species	Common Name	Mix (%)	Height (cm)	Form	Age/ Times transplanted	Root condition
Trees (40%)						
Acer campestre	Field Maple	3	120-150	2x; Feathered; 3 breaks	2x	B
Acer campestre	Field Maple	2	150-175	2x; Feathered; 3 breaks	2x	B
Acer campestre	Field Maple	1	200-250	2x; Feathered; 5 breaks	2x	B
Corylus avellana	Hazel	3	120-150	2x; Feathered; 3 breaks	2x	B
Corylus avellana	Hazel	2	150-175	2x; Feathered; 3 breaks	2x	B
Corylus avellana	Hazel	1	200-250	2x; Feathered; 5 breaks	2x	B
Malus sylvestris	Crab Apple	3	120-150	2x; Feathered; 4 breaks	2x	B
Malus sylvestris	Crab Apple	2	150-175	2x; Feathered; 4 breaks	2x	B
Malus sylvestris	Crab Apple	1	200-250	2x; Feathered; 5 breaks	2x	B
Crataegus monogyna	Hawthorn	2	120-150	2x; Feathered; 3 breaks	2x	B
Crataegus monogyna	Hawthorn	1	150-175	2x; Feathered; 4 breaks	2x	B
Crataegus monogyna	Hawthorn	1	200-250	2x; Feathered; 5 breaks	2x	B
Quercus robur	English Oak	8	120-150	2x; Feathered; 2 breaks	2x	B
Quercus robur	English Oak	6	150-175	2x; Feathered; 3 breaks	2x	B
Quercus robur	English Oak	4	200-250	2x; Feathered; 5 breaks	2x	B
Shrubs (60%)						
Acer campestre	Field Maple	7.5	60-80	Transplant	1+1	B
Corylus avellana	Hazel	10	60-80	Transplant; Branched; 2 breaks	1+1	B
Crataegus monogyna	Hawthorn	25	60-80	Transplant	1+1	B
Prunus spinosa	Blackthorn	10	60-80	Transplant; Branched; 2 breaks	1+1	B
Sambucas nigra	Elder	7.5	60-80	Transplant; Branched; 3 breaks	1+1	B

PROPOSED COPSE PLANTING

Trees to be planted at 2m centres, shrubs to be planted at 1m centres

Species	Common Name	Mix (%)	Height (cm)	Form	Age/ Times transplanted	Root condition
Trees (40%)						
Acer campestre	Field Maple	6.5	120-150	2x; Feathered; 3 breaks	2x	B
Acer campestre	Field Maple	2.5	150-175	2x; Feathered; 3 breaks	2x	B
Acer campestre	Field Maple	1	200-250	2x; Feathered; 5 breaks	2x	B
Betula pubescens	Downy Birch	7	120-150	2x; Feathered; 2 breaks	2x	B
Betula pubescens	Downy Birch	5	150-175	2x; Feathered; 3 breaks	2x	B
Betula pubescens	Downy Birch	3	200-250	2x; Feathered; 5 breaks	2x	B
Corylus avellana	Hazel	6.5	120-150	2x; Feathered; 3 breaks	2x	B
Corylus avellana	Hazel	2.5	150-175	2x; Feathered; 3 breaks	2x	B
Corylus avellana	Hazel	1	200-250	2x; Feathered; 5 breaks	2x	B
Malus sylvestris	Crab Apple	2	120-150	2x; Feathered; 4 breaks	2x	B
Malus sylvestris	Crab Apple	1	150-175	2x; Feathered; 4 breaks	2x	B
Malus sylvestris	Crab Apple	1	200-250	2x; Feathered; 5 breaks	2x	B
Shrubs (60%)						
Acer campestre	Field Maple	5	60-80	Transplant	1+1	B
Corylus avellana	Hazel	10	60-80	Transplant; Branched; 2 breaks	1+1	B
Crataegus monogyna	Hawthorn	25	60-80	Transplant	1+1	B
Prunus spinosa	Blackthorn	10	60-80	Transplant; Branched; 2 breaks	1+1	B
Sambucas nigra	Elder	10	60-80	Transplant; Branched; 3 breaks	1+1	B

PROPOSED HEDGEROW PLANTING

To be planted at 5 per linear metre in double staggered rows, rows will be 40cm apart or as appropriate where infilling gaps in existing hedgerows

Species	Common Name	Mix (%)	Height (cm)	Form	Age/ Times transplanted	Root Condition
Acer campestre	Field Maple	20	60-80	Transplant	1+1	B
Corylus avellana	Hazel	10	60-80	Transplant	1+1	B
Crataegus monogyna	Hawthorn	40	60-80	Transplant	1+1	B
Prunus spinosa	Blackthorn	20	60-80	Transplant	1+1	B
Sambucas nigra	Elder	10	60-80	Transplant	1+1	B

N 0 125 250 m

OLD WOOD ENERGY PARK – Landscape Strategy

| PEGASUSGROUP.CO.UK | TEAM/DRAWN BY: IBD | APPROVED BY: IBD / RCH | DATE: 10/10/2024 | DRWG: P21-2533_EN_06E | CLIENT: Exagen Development Ltd |

PEGASUS GROUP

Town & Country Planning Act 1990 (as amended)
Planning and Compulsory Purchase Act 2004

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