

CHAPTER 9 – LANDSCAPE AND VISUAL

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Technical Appendix 9-1: Landscape and Visual Impact Assessment

List of Acronyms/Abbreviations

B&A	Bright & Associates
C.	Circa
CPAT	Clwyd Powys Archaeological Trust
DCW	Design Commission for Wales
Development	All activities within the red line planning boundary (see Drawing ECL-BQ-000 in Technical Appendix TA1-1)
Development Site	The physical site on which the Development is to be located as defined by the red line planning boundary (see Drawing ECL-BQ-000 in Technical Appendix TA1-1)
DNS	Development of National Significance
EIA	Environmental Impact Assessment
ERF	Energy Recovery Facility
ES	Environmental Statement
GLVIA	Guidelines for Landscape and Visual Impact Assessment (Third Edition), Landscape Institute and Institute of Environmental Management and Assessment (2013)
ha	hectares
HGV	Heavy Goods Vehicle
KEA	Key Environmental Aspects
km	kilometres
LANDMAP	Landscape Assessment and Decision Making Process
LCA	Landscape Character Area
LT	Landscape Type
LVIA	Landscape and Visual Impact Assessment
m	metres
mAOD	Metres Above Ordnance Datum
MW	megawatt
NCA	National Character Areas
NLCA	National Landscape Character Areas
NRW	Natural Resources Wales
OS	Ordnance Survey
PGW	Parkland and Gardens of Wales
POW	Parks of Wales
ROMP	Review of Minerals Permissions
SPG	Supplementary Planning Guidance
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
TAN	Technical Advice Notes
VP	Viewpoint
ZTV	Zone of Theoretical Visibility

List of Amendments

- Paragraph 9.1.5 added (scoping response).
- 9.1.2 – text notes what the LVIA assesses (i.e. winter views from specific Viewpoint Locations, plume visibility and night time effects due to the proposed lighting scheme).
- 9.1.3 – makes clear what is considered in operation phase (i.e. no allowance is made for the additional screening benefits offered by new native woodland planting). During decommissioning, consideration is given to its long term landscape and visual benefits.
- 9.1.12 - comments received during the pre-application process held in 2020. A summary table is provided in the LVIA.
- 9.1.13 – added text to explain what is included in the LVIA following consultation with Powys County Council. Corresponding Appendices.
- 9.1.14 – reference to winter views
- 9.1.15 – reference to opening of east garden at Powis Castle to the public. Viewpoint Location included in the LVIA is considered to be a rigorous choice.
- 9.2.3 – added ref to the Pre-Application Consultation Process
- 9.2.6-9.2.13 – additional text to explain technical process and when the photographs were mainly taken (i.e. 2018 prior to the Technical Guidance Note 06/19)
- 9.2.15 – reference to wireframes now included in the LVIA
- 9.2.17-9.2.18 – emphasises what is considered in operation (bunds and not added benefit of new native woodland planting). Long term benefits due to the woodland planting in decommissioning phase.
- 9.2.21 – desk study reviewed in July 2020 and January 2021
- 9.2.25 - Planning Policy Wales (Edition 10). Added in additional bullets to reflect main ERF building features a graduated roofline (bullet 2), LVIA assesses individual phases (bullet 4), more detail on Landscape Masterplan (bullet 6 and 7).
- 9.3.2 – emphasises ZTV is founded on landform and key areas of existing woodland
- 9.3.7-9.3.8 – split between immediate landscape and surrounding landscape setting. Text now emphasises area of elevated landform (c.129mAOD) and mature mixed woodland to the north-west.
- 9.3.27 – added in reference to upgrading of ERF/employment use
- 9.4.3 – added in ref to cross sections in LVIA
- 9.4.4. – added in ref to Landscape Masterplan, proposed internal access route to the ERF and an alternative option, Laydown Areas
- 9.4.6 - key elements of the landscape strategy bullets 1 to 7. More detail about the strategy and reflects the mitigation measures set out in the LVIA
- 9.4.7 – additional screening benefits of new woodland planting not considered for operation
- 9.4.8 – emphasises architectural design (i.e. simplified building form), cross ref to DAS
- 9.4.9 – paragraph sets out key aspects of siting, layout and architectural design for the operation phase
- 9.4.10 – ref to winter and summer scenes considered as part of the LVIA and cross reference to studies/DAS
- 9.4.13 – states each phase of the Development is considered separately
- 9.4.14 – 9.4.26 Construction Phase Effects are now dealt with separate to decommissioning. No change to text/results other than to reflect this for landscape character and landscape designations.
- 9.4.27 – added in text to reflect close/medium range benefits of screen bunds

List of Amendments (cont)

- Table 9 4: Viewpoint Locations Assessed in the LVIA. Added in new column 'Description', this describes where the photograph was taken from e.g. grass verge alongside Heldre Lane. Receptor for Viewpoint Location 1 (both ground and potential first floor locations/gardens).
- 9.4.33 – added in sub heading 'Visual Impact Assessment' before paragraph. Inserted text re: formation and establishment of the screen bunds.
- 9.4.35 – added in ref to ground modelling.
- 9.4.38 – additional Viewpoints added
- 9.4.40 - additional construction phase impacts assessed.
- 9.4.53 and 9.4.58 – clarification on text added
- 9.4.60 – additional Viewpoint Locations added
- 9.4.62-9.4.66 – added in sub heading 'Consideration of Plume Visibility' to describe plume visibility calculation method.
- 9.4.68 – 9.4.89 addresses decommissioning phase.
- 9.4.94 - The Development Overall – added in text to emphasise architectural design and Landscape Masterplan benefits.
- Table 9 5: Interactive Effects on KEA – amendments for additional Viewpoints
- 9.5.4 – added in LVIA considers winter views and plume visibility
- 9.5.22 – 9.5.26 – additional text to added to clarify operation and decommissioning phases
- 9.5.27 – reference to consideration of winter and summer views
- Table 9-12: Summary of Visual Effects – now divided into construction, operation and decommissioning
- Section 9.6 - Tables updated to include additional Viewpoint Locations. Construction and Decommissioning now dealt with separately.
- Section 9.7 – updated based on all above amendments.

9. LANDSCAPE AND VISUAL

9.1. Introduction

9.1.1. This Chapter assesses the likely significant effects resulting from the Development in relation to landscape and visual matters. It has been prepared by Bright & Associates (“B&A”).

9.1.2. It describes the existing baseline situation in terms of landscape setting, character and designations and sets out the methodology applied to assess impacts and effects on identified receptors. The assessment considers the potential significant effects due to the construction, operation and decommissioning phases of the Development. The assessment addresses cumulative effects and evaluates winter views from specific Viewpoint Locations, plume visibility and night time effects due to the proposed lighting scheme.

9.1.3. Mitigation measures described in Chapter 4 Description of the Development in the ES including layout within the quarry void, aspects of the built form (e.g. the graduated roofline) and the choice of cladding colour for the proposed Energy Recovery Facility (“ERF”). It should be noted that in the operation phase, no allowance is made for the additional screening benefits offered by new native woodland planting. During decommissioning, consideration is given to its long term landscape and visual benefits.

9.1.4. The Landscape and Visual Impact Assessment (“LVIA”) is included as Technical Appendix 9-1. This Chapter refers to Figures, Sections and Appendices contained in the LVIA.

9.1.5. In their scoping response on 3 October 2018, the Planning Inspectorate commented regarding landscape and visual impact as follows:

‘In its scoping consultation response, Cadw suggests additional viewpoints to be included in the LVIA when cross-referencing from the CHA and advises on how the information should be presented in the ES. The Clwyd Powys Archaeological Trust (CPAT) also suggests an additional viewpoint. The Inspectorate directs that the applicant incorporates viewpoints in the LVIA as follows (exact locations to be agreed with the relevant consultee):

- Offa’s Dyke (Scheduled Monument MG034)
- Offa’s Dyke (Scheduled Monument MG224)
- Strata Marcella Abbey (Scheduled Monument MG120)
- The Breidden Hillfort’

‘The applicant should also heed the advice from Cadw regarding Viewpoints 8 and 11 in Table 8 of the SR.’

‘The SR confirms that the proposed stack height is not yet finalised. If the outcome of the air quality study determines that the stack height should exceed the 70 m currently proposed for the LVIA, and the development proposal is amended to reflect that increase, then the applicant should ensure that the LVIA reflects the amended proposal.’

‘The SR also raises the issue of the proximity of this proposal to the border between England and Wales. The applicant should consider consulting the neighbouring planning authority in England on the proposed approach to the LVIA; if this is not considered to be a necessary step, a reasoned justification should be provided in the ES’.

9.1.6. B&A was founded in 1991 and the Practice is registered with the Landscape Institute. The LVIA has been undertaken by the Principal of B&A, Richard Bright, a Chartered Landscape Architect (Design) and a Member of the Landscape Institute. He has worked as a landscape

professional for 33 years on a wide range of projects throughout the United Kingdom including energy from waste developments.

Scope

- 9.1.7. Further to carrying out the LVIA, B&A has provided ongoing advice over a number of years. This has involved Site location evaluation and broad landscape appraisal concerning building design, mitigation components and related processes as part of the overall ERF design. B&A has designed the Landscape Masterplan and Illustrative Cross Sections included in Chapter 4.

Consultation

- 9.1.8. Consideration has been given to the comments in the Scoping Direction relating to landscape and visual matters (set out in paragraph 7.4) and cultural heritage assets. These are addressed in detail in the LVIA (see Technical Appendix 9-1: Appendix 1).
- 9.1.9. Clwyd Powys Archaeological Trust (“CPAT”) and The Welsh Government Historic Environment Service referred to additional viewpoint locations for Scheduled Monuments and from Maesfron (Grade II), a Registered Park and Garden of Special Historic Interest in Wales (Cadw). Following field work, site assessment and technical studies undertaken as part of the Zone of Theoretical Visibility (“ZTV”) process to establish the principal study area, it was ascertained that the following are outwith the ZTV and have not been assessed further:
- Offa’s Dyke - Section extending 760m N from centre of Goppas Wood to Hope By-Road, Scheduled Monument (Reference MG034); and
 - Trelydan Hall (Grade II), Registered Park and Garden of Special Historic Interest in Wales (and its essential setting) (Reference PGW (Po) 39 (POW)).
- 9.1.10. Table 9-1 identifies the remaining designations and where they are addressed in the LVIA. Viewpoint Locations 17 and 31 are also from Scheduled Monuments. Viewpoint Location 17 from Middletown Hill is from the summit which includes the remains of a hillfort (Cefn y Castell - Reference MG007) and Viewpoint Location 31 from Llanymynech Hill (Llanymynech Hill Camp - Reference MG030).

Table 9-1: Scoping Direction and Referenced Designations

Designation	LVIA Assessment
Scheduled Monuments	
Offa's Dyke - South of School House (Reference MG224)	Located in a low lying area adjacent to the B4388 and is south of the Offa's Dyke Business Park in Buttington. Field work undertaken as part of the LVIA established that north-easterly views are restricted by a combination of topography, intervening built form and woodland. Whereas more open views relate to the higher ground of the Long Mountain to the east. The Development will have No Impact either during all phases of the Development.
Strata Marcella Abbey (Reference MG120)	Field work undertaken as part of the LVIA established that it is located at a low elevation when compared to more open areas in the vicinity along the nearby A483. The Development will have No Impact either during all phases of the Development due to a combination of distance, localised topography and vegetation. Viewpoint Location 21 is from the A483 near Pool Quay at Strata Marcella Abbey. (see Technical Appendix 9-1: Sections 5 and 6)
Breiddin Hill Camp (Reference MG021)	Applies to the summit of Breidden Hill and includes an obelisk generally known as Rodney's Pillar (Listed Building Grade II* Reference 7667). Visual effects are examined through Viewpoint Location 18 From Rodney's Pillar in the LVIA. (see Technical Appendix 9-1: Section 6)
Crowther's Coppice Camp (Reference MG143)	Located in Crowther's Coppice and includes a section immediately adjacent to Allt Wood (to the east). Open views are available to the north rather than to the south-east towards the Development Site. The Development will have No Impact either during all phases due to localised vegetation. Viewpoint Location 19 is from a public footpath near Coppice East Farm and demonstrates open views from the northern edge of Allt Wood. (see Technical Appendix 9-1: Sections 5 and 6)
Register of Parks and Gardens of Special Historic Interest in Wales (and essential settings)	
PGW (Po) 53 (POW) Maesfron (Grade II)	Assessed in the LVIA in terms of landscape and visual effects. Viewpoint Location 9 From A458 at Trewern is just outwith it's essential setting. (see Technical Appendix 9-1: Sections 5 and 6)
PGW (Po) 35 (POW) Powis Castle Garden (Grade I)	Assessed in the LVIA in terms of landscape and visual effects. Viewpoint Location 24 From Powis Castle, Welshpool is assessed in the LVIA. (see Technical Appendix 9-1: Sections 5 and 6)

- 9.1.11. B&A met with the Planning Policy and Strategy Manager of Shropshire County Council to discuss their potential involvement in all aspects of the Development. In accordance with the Scoping Report recommendation, one of the key issues discussed was the LVIA and the extent of the assessment from Shropshire. They confirmed that they were content with the approach proposed (i.e. that there are no obvious viewpoints in Shropshire).
- 9.1.12. The content of the LVIA has been informed by comments received during the pre-application process held in 2020. A summary table is provided in the LVIA (see Technical Appendix 9-1: Table 1).
- 9.1.13. The following are provided in the LVIA following comments from Powys County Council:
- Maximum plume length: Illustrated maximum calculated plume length from Viewpoint Location 11 From Garreg Bank (upper) Trewern (see Technical Appendix 9-1: Section 6, Appendix 1 and Appendix 14).
 - Example wireframe views to demonstrate methodology: Included to show the

approach undertaken for the photomontage images. Prepared by B&A through consultation with the appointed landscape advisors to Powys County Council (see Technical Appendix 9-1: Appendix 13); and

- Illustrative Cross Sections (1 to 6): To accompany the Landscape Masterplan: (see Technical Appendix 9-1: Referenced through the LVIA and included in Appendix 3).

9.1.14. Further to the above, example photomontage winter views from selected Viewpoint Locations have been evaluated to explore a reduction in treecover outwith the Development Site during winter and the selected colour cladding scheme (see Technical Appendix 9-1: Section 6 and Appendix 12)

9.1.15. With regards to additional Viewpoint Locations to be considered from Powis Castle. B&A has been informed by Powys County Council that a planning application has been submitted to open up the east garden of Powis Castle to the public. On the basis of information received, B&A consider that the Viewpoint Location included in the LVIA and assessment to be a rigorous choice.

9.2. Relevant Legislation

9.2.1. This Section sets out the methodology and guidance for the LVIA, lists the desk study resources and summarises current planning policy related to landscape and visual matters. At a national level, planning policy is contained in Planning Policy Wales (Edition 10) (December 2018) and Technical Advice Notes ("TAN"). At a local level, the Powys Local Development Plan 2011 – 2026 (Adopted April 2018) and supporting Supplementary Planning Guidance ("SPG") are relevant.

LVIA Methodology and Guidance

9.2.2. Guidance and methodology for the undertaking of the LVIA has been sourced from (in date order):

- Guidelines for Landscape and Visual Impact Assessment (Third Edition), Landscape Institute and Institute of Environmental Management and Assessment (2013). Hereafter, referred to as the GLVIA Third Edition;
- An Approach to Landscape Character Assessment, Natural England (2014);
- Visual Representation of Wind Farms, Guidance, Version 2.2, Scottish Natural Heritage (2017);
- An Approach to Landscape Sensitivity Assessment – to Inform Spatial Planning and Land Management, Natural England (2019); and
- Visual Representation of Development Proposals, Technical Guidance Note 06/19, Landscape Institute (2019).

9.2.3. Further to the above, consideration has been given to comments in the Scoping Direction together with those received from Design Commission for Wales ("DCW") and during the Pre-Application Consultation Process.

9.2.4. Direction has been taken from LANDMAP ("Landscape Assessment and Decision Making Process") including methodologies and guidance notes, the Powys Local Development Plan 2011 – 2026, particularly with reference to Policy DM4 Landscape and the adopted Landscape SPG (April 2019).

- 9.2.5. The visuals in the LVIA have been prepared in accordance with Technical Guidance Note 06/19 (September 2019) issued by the Landscape Institute. Appropriate Visualisation Types 2-4 apply to most LVIAs for planning applications involving an Environmental Impact Assessment (“EIA”). Type 1 annotated viewpoint photographs have also been included.
- 9.2.6. Presentation methods adopted for the LVIA in terms of the Technical Guidance Note 06/19, technical process adopted for the photomontage views and for the illustrated plume are explained in detail in Appendix 1 and summarised in Section 2 of the LVIA. (see Technical Appendix 9-1)
- 9.2.7. Visual assessment and site photographic work commenced at the outset of the project and initial findings of the visual and landscape assessment were integral in the design process of the Development.
- 9.2.8. The photographs used for the LVIA were mostly taken in 2018 (i.e. prior to the Technical Guidance Note 06/19) during periods of fine weather with good visibility and they are a fair representation of the current landscape setting. They have been supplemented with additional photographs after this time to take account of recent changes and to include further views etc. However, the camera equipment and illustration methods generally comply with the advice.
- 9.2.9. The camera used is a Canon EOS 5D Mark IV with a fixed 50mm lens.
- 9.2.10. It should be noted that the photographs in the LVIA are provided as an “*aide memoire*”. A critical review of the visual assessment would need to be undertaken in the field at each viewpoint location to gain a better understanding of the Development in terms of the overall visual amenity.
- 9.2.11. For each Viewpoint Location, a panoramic view is provided which shows the existing context of the Development Site and demonstrates the nature of the scene.
- 9.2.12. A single frame photograph enlargement is also supplied for each Viewpoint Location.
- 9.2.13. Type 3 photomontage views consisting of a single frame photograph photomontage view is included for each Viewpoint Location showing the proposed ERF building and the stack. The photomontage views would be categorised as Type 3 in the Technical Guidance Note 06/19 and also comply with Type 4 in that they are “verifiable” through the process of the software used for the photomontage (albeit not taken with a tripod), as such they are presented with scale representation.
- 9.2.14. Appendix 13 of the LVIA (Technical Appendix 9-1) presents a series of wireframes which have been prepared through consultation with the appointed landscape advisors to Powys County Council.
- 9.2.15. The wireframes illustrate the entire landform data in in the ground model and thus, may illustrate hidden faces or features not directly seen in the context of the photograph. Nevertheless, they demonstrate the image scaling and accuracy of the final illustrated photomontage. Therefore, each photomontage view provided in the LVIA is intended to assist in the understanding of the changes that will occur to the existing visual amenity as a result of the Development. (see Technical Appendix 9-1: Figures L9 to L109)

- 9.2.16. Under certain circumstances of specific weather conditions, there is potential for a visible plume to be produced from the stack. The average calculated visible plume has been illustrated in the photomontage views using the results of the air dispersion modelling data. The steps undertaken are summarised in the LVIA (see Technical Appendix 9-1: Appendix 1) and detailed in the ECL report ECL.001.01.02/ADM which is included as Technical Appendix 6-1. An evaluation of general visual effects is provided in the LVIA (see Technical Appendix 9-1: Section 6). The maximum visible plume is also considered from Viewpoint Location 11 (Garreg Bank (upper) Trewern) during winter months. (see Technical Appendix 9-1: Appendix 14)
- 9.2.17. Mitigation measures form a key part of the Development and in the photomontage views, proposed native woodland planting is shown in summer after approximately 10 years when trees will be c.6m to 8m high. This is for illustrative purposes only and the visual effects described in Section 6 of the LVIA during the operation phase are based on the mitigation measures provided by the screen bunds and not the added benefit of new native woodland planting.
- 9.2.18. In some of the close range views, both the wooded bund and the level of the proposed topographic form of the bund is shown to enable a balanced evaluation of the maximum effects. Clearly, there will be long term benefits due to the woodland planting which has the potential to result in a gradual but positive change. This is reflected in the decommissioning phase.
- 9.2.19. The LVIA has considered the proposed lighting scheme for the Development. Further to the GLVIA Third Edition and Technical Guidance Note 06/19 (September 2019), reference has also been made to Guidance Note 01/20 issued by the Institute of Lighting Professionals in 2020.
- 9.2.20. In summary, site assessment and field work were conducted between 2016 and 2020 during both summer and winter months. The photographs used for the LVIA were taken in September and October 2018 and in July 2020. They are a fair representation of the current landscape setting. With regards to the proposed lighting scheme, the night time photographs were taken in September 2020 (see Technical Appendix 9-1: Appendix 11) and the example photomontage winter views in February 2019 (see Technical Appendix 9-1: Appendix 12).

Desk Study Sources

- 9.2.21. The initial desk study was commenced in May 2018. It was reviewed in July 2020 and January 2021.
- 9.2.22. Table 9-2 summarises the resources used in addition to the LVIA Methodology and Guidance. A full list of references referred to in the LVIA is provided in Section 9.8 of this Chapter.

Table 9-2: Desk Study Sources

Source	Details
Planning Policy	
National Level	
The Welsh Government	Planning Policy Wales (Edition 10) (December 2018)
	Technical Advice Note 5 Nature Conservation and Planning (September 2009)
	Technical Advice Note 12 Design (March 2016)
	Technical Advice Note 21 Waste (February 2014)
	Technical Advice Note 24 The Historic Environment (May 2017)
Local Level	
Powys County Council	Powys Local Development Plan 2011 – 2026 (April 2018)
	Biodiversity and Geodiversity SPG (October 2018)
	Landscape SPG (April 2019)
Shropshire Council	SAMDev Plan 2006-2026 (December 2015)
Landscape Character Assessment	
National Level	
National Landscape Character Area (“NLCA”) (Natural Resources Wales)	Shropshire Hills (outliers) NLCA No.18 (2014)
	Severn Valley NLCA No.19 (2014)
National Character Area (“NCA”) (Natural England)	Shropshire, Cheshire and Staffordshire Plain NCA No.61 (2014)
	Oswestry Uplands NCA No.63 (2014)
	Shropshire Hills NCA No.65 (2013)
LANDMAP (Natural Resources Wales)	
Methodology and Guidance	LANDMAP Methodology Visual and Sensory (2016)
	LANDMAP Methodology Landscape Habitats (2016)
	LANDMAP Methodology Geological Landscape (2016)
	LANDMAP Methodology Historic Landscape (2016)
	LANDMAP Methodology Overview (2017)
Area Statements	LANDMAP Cultural Landscape Services, Report No. 336 (2019)
	Mid-Wales Area Statement (2018)
Aspect Layers	Geological Landscape (Survey Dates 2005)
	Visual and Sensory (Survey Dates 2004 and monitoring 2015)
	Landscape Habitats (Survey Dates 2005 and monitoring 2016)
	Historic Landscape (Survey Dates 2006 and monitoring 2017)
County Level	
Powys County Council	Powys Landscape Character Assessment Study (2008)
Shropshire Council	The Shropshire Landscape Typology (2006)
Landscape Designations	
National Trust	Powis Castle and Garden
Registered Parks and Gardens	Maesfron Hall and Gardens
Natural Resources Wales and National Monuments Record of Wales	Scheduled Monuments, Listed Buildings and Registered Parks and Gardens (general within the principal study area)
The Welsh Government Historic Environment Service (CADW)	Scheduled Monuments, Listed Buildings and Registered Parks and Gardens (guidance for assessment)
Clwyd-Powys Archaeological Trust	Vale of Montgomery Historic Landscape No.35

Table 9-2: Desk Study Sources (cont)

Recreation	
National Trails	Offa's Dyke Path National Trail
Long Distance Walkers Association	Severn Way long distance footpath
National Cycle Routes (Sustrans)	Sustrans National Route No.81
Design Plans and Drawings	
Layout and elevations of the Development	Drawings prepared by Race Cottam Associates Ltd.
Proposed lighting scheme	Contents of the report and Drawings prepared by Illume Design (Dated 1 August 2019), Drawing No. 4052-ID-DR-1001 (Rev D01) External Lighting Strategy Sheet 1 of 2 and Drawing No. 4052-ID-DR-1002 (Rev D01) External Lighting Strategy Sheet 2 of 2.
Additional sources	
Mapping data	Ordnance Survey (OS)
Tranquillity	Lle Geo-Portal, Tranquil Areas Wales (2009)

Planning Policy

- 9.2.23. Planning policy and its application to the Development in terms of landscape and visual matters is assessed in detail in the LVIA. (see Technical Appendix 9-1: Section 7) It is summarised in this Chapter.

Planning Policy Wales (Edition 10)

- 9.2.24. Chapter 2 People and Places: Achieving Well-being Through Placemaking states that a key planning principle is to achieve the right development in the right place. This involves making the best use of resources, including land which underpins sustainable development and limiting environmental impacts on natural, historic and cultural assets which must be protected. In addition, negative environmental impacts should be avoided in the wider public interest.
- 9.2.25. Paragraph 2.25 (page 24), assessing the sustainable benefits of development, lists the key factors relating to social, cultural and environmental considerations. These have been applied to the Development:
- the proposed ERF building and stack will be located in the quarry void in the central environs of the Site (see Illustrative Cross Sections in Technical Appendix 9-1: Appendix 3);
 - the main ERF building features a graduated roofline to avoid a boxy appearance;
 - the choice of cladding colours is intended to be sympathetic to the landscape setting and uses prevailing natural shades of green and light brown hues. Thus, it achieves a subtle yet high degree of architectural design presence;
 - the LVIA has assessed the individual phases of the Development;
 - landscape effects considers character (local and national), landscape designations and cultural heritage assets. Whilst visual effects appraises a range of receptors including residents, road users, visitors to Powis Castle and footpath users including on the Offa's Dyke National Trail.
 - in terms of landscape proposals, screen bunds will be planted with native broadleaved

trees. The Landscape Masterplan also comprises areas of open mosaic habitat, species-rich neutral grassland and SuDS measures;

- during the operation phase, the assessment has made no allowance for the additional screening benefits of proposed native woodland planting. Consideration is given to the screen bunds only. During the decommissioning phase, it will offer long term enhancement both in landscape and visual terms; and
- of the adverse impacts or effects that have been identified, none appear to be so overriding to the context of the view such that it would have a wholly dominant or intrusive effect.

9.2.26. Also relevant are the following Chapters in Planning Policy Wales (Edition 10):

- Chapter 3 Strategic and Spatial Choices with regards to aspects of good design including character and environmental sustainability. In the countryside, new proposals should be of a scale and design that respects the character of the surrounding area (paragraph 3.37);
- Chapter 5 Productive and Enterprising Places including in terms of development proposals and mitigation measures; and
- Chapter 6 Distinctive and Natural Places sets out how landscapes, the historic environment and habitats can be beneficial for Wales.

Technical Advice Notes

9.2.27. Of note, are the following:

- Technical Advice Note 5 Nature Conservation and Planning (September 2009) in terms of enhancing existing biodiversity;
- Technical Advice Note 12 Design (March 2016) with respect to Chapter 2 Defining Design and enhancing biodiversity, Chapter 4 Delivering Good Design outlines key objectives to reflect good design including character and environmental sustainability and Chapter 5 Assessing Design Issues addresses specific design matters such as strategic responses to climate change;
- Technical Advice Note 21 Waste (February 2014) with regards to Chapter 3 Strategic Planning for Waste and Chapter 15 Visual Impact; and
- Technical Advice Note 24 The Historic Environment (May 2017) with regards to cultural heritage designations.

Powys Local Development Plan 2011 – 2026

9.2.28. Of particular note is Policy DM4 Landscape both in terms of design considerations and the undertaking of LVIA's. The following policies are also relevant:

- Strategic Policy SP7 Safeguarding of Strategic Resources and Assets;
- Policy DM2 The Natural Environment;
- Policy DM7 Dark Skies and External Lighting;
- Policy DM13 Design and Resources;
- Policy E1 Employment Proposals on Allocated Employment Sites;
- Policy M5 Restoration and Aftercare;
- Policy RE1 Renewable Energy;
- Policy T1 Travel, Traffic and Transport Infrastructure;
- Policy W1 Location of Waste Development; and
- Policy W2 Waste Management Proposals.

Supplementary Planning Guidance

- 9.2.29. The Biodiversity and Geodiversity SPG (October 2018) refers to the potential to incorporate resilience into development through landscape proposals.
- 9.2.30. The Landscape SPG (April 2019) provides detailed guidance for undertaking LVIA's, using LANDMAP resources and factors to assist in the landscape integration of new development.

9.3. The Existing Environment

Environmental Assessment Boundary

- 9.3.1. The principal study area is defined in the LVIA as the distance from the Development within which the landscape or visual effects might be deemed as being of potential significance and thus, relevant to the assessment process. A preliminary study area of up to 20km was initially adopted with primarily assessable effects detected up to c.15km and key effects expected to be within 10km, given the nature of the Development.
- 9.3.2. In order to determine the principal study area, a ZTV has been identified using computer based analysis established on the potential visibility of the stack (shown in purple shading on Figures L5 and L6 in Technical Appendix 9-1) and the upper roof section of the ERF combined with the stack (shown in blue shading on Figures L5 and L6 in Technical Appendix 9-1). This is based on a 70m high stack. It should be noted that mitigation measures including the proposed native woodland planting illustrated by the Landscape Masterplan are not factored into the ZTV. Furthermore, the ZTV is founded on landform and key areas of existing woodland beyond the site boundary digitised from OS data and may suggest a wider area than exists in reality. Used as a broad assessment tool it enables a more detailed level of appraisal. It is particularly relevant to visual impact assessment but also enables an evaluation of landscape character effects.
- 9.3.3. The principal study area as defined by the ZTV is deemed to be appropriate to assess the baseline situation including the current landscape setting, landscape character and designations and within which the viewpoint locations have been identified. For robustness, consideration has been given to areas in close proximity which may have relevance to the LVIA.
- 9.3.4. Unless otherwise stated, direction and distance quoted in the text and shown on the LVIA Figures are from the proposed stack. The immediate vicinity of the Development Site is within 500m, close range is from 500m to 3km and medium range from 3km to 6km. Long range is beyond 6km.

Base Line Conditions

The Landscape Setting

- 9.3.5. The LVIA describes the Development Site and surrounding landscape in detail (see Technical Appendix 9-1: Section 3). The main aspects are summarised below.

Description of the Development Site

9.3.6. With regards to the Development Site:

- it is located off the A458 Shrewsbury to Welshpool Road which currently provides access;
- it includes a section of the route for which access and highway improvements will be undertaken under an existing planning consent (Reference P/2015/0439). This has yet to be implemented and the construction of the access road is assessed as part of the LVIA (see Technical Appendix 9-1: Section 6);
- it is circa (“c.”) 1.5km south of the village of Trewern and c.2.2km north-east of Buttington. Sale Lane is immediately to the east and Heldre Lane to the south;
- the majority of the Development Site represents an altered landform of previous quarry working and tracks due to related activities. Development Site levels broadly range from 90 Metres Above Ordnance Datum (“mAOD”) to 130mAOD (see Technical Appendix 9-1: Figure L4 Sheet 1);
- a partially formed screen bund is present along the eastern Development Site boundary bordering Sale Lane;
- a public footpath passes through the northern periphery of the Development Site; and
- currently the Development Site operates in accordance with a Review of Mineral Permissions (“ROMP”) under the Environment Act 1995 (Reference P/2010/0165). The majority of the Development Site including the existing quarry void has been allocated for employment uses in the Powys Local Development Plan 2011 – 2026.

The Surrounding Landscape

9.3.7. With regards to the immediate setting of the Development Site:

- there is an area of elevated landform (c.129mAOD) and mature mixed woodland to the north-west;
- there are a number of buildings and a yard area south of the Development Site which previously formed part of quarry working (and an associated brickworks); and
- Buttington Brickworks geological Site of Special Scientific Interest (“SSSI”) is adjacent to the north.

9.3.8. The following are also of note:

- Nearby residential properties and farmsteads include Cefn Cottage (c.45m) and Cefn Farm (c.50m) to the north, Green Farm adjacent to the Development Site and Whitehouse Farm (c.100m) to the south on Heldre Lane and Sale Farm (c.40m) east on Sale Lane;
- Welshpool is the main settlement (c.2.6km south-west). Elsewhere, villages, residential properties and farmsteads are found along the main road network or reached by tracks leading from minor roads, mostly at higher levels.
- “A” class roads (Trunk Roads) include the A458 and A483 and both feature commercial activities along their routes such as industrial estates. Minor roads and lanes are more frequent apart from in the Severn Valley to the west and north of the Development Site beyond the Welshpool-Shrewsbury railway line;
- Agriculture, woodland, hillside grazing and some urban areas represent the main land uses in the principal study area. Quarry working can be found at Criggion Quarry on the western side of Breidden Hill and overhead power lines cross the Severn Valley;
- Treecover is generally limited to large blocks of coniferous and mixed woodland on

lower slopes. Open views are gained from hill summits to the north-east and east of the Development Site (broadly within medium range) and to the south-west and north-west (at a long range). To the west, bordering the Severn Valley, there are areas of rolling hills and pasture with mixed broadleaf woodland. Large woodland tracts appear at higher elevations such as Oak Plantation (c.1.4km south), Crowther's Coppice and Allt Wood (c.2.2km north-west), Moel y Golfa (c.2.2km north) and Breidden Forest (c.3.3km north). Many are managed by conservation organisations or Natural Resources Wales. However, the location and nature of woodland in the wider landscape setting were not found to offer critical screening or mitigation features of the Development. In addition, the mixed woodland north-west of the Development Site mentioned above offers limited screening value;

- Recreation activities include the Welshpool Golf Club (c.9.3km south-west) and Llanymynech Golf Club (c.11.9km north). Llanymynech Rocks Nature Reserve is on the site of a former quarry near Llanymynech Hill (c.11.7km north);
- Cultural heritage assets include Powis Castle (National Trust) (c.6km south-west) and Maesfron Hall and Gardens, a privately owned house and garden in Trewern (c.1.6km north-east). Both include Listed Buildings and are categorised as a Registered Park and Garden of Special Historic Interest in Wales (Cadw). (see Technical Appendix 9-1: Figure L2);
- A section of the Montgomery Canal passes through the principal study area. The Offa's Dyke Path National Trail runs adjacent (c.1.8km north-west) and the Severn Way (long distance footpath) also runs concurrently in places. A further National Trail, The Glyndwr's Way leads in a westerly direction from Welshpool. (see Technical Appendix 9-1: Figure L2); and
- Many public footpaths follow tracks to individual farmsteads or villages. The Sustrans National Route No.81 follows minor roads to the south-east of the Development Site (c.2.2km). In addition to public footpaths there is access land at Heldre Hill (c.1.2km south-east).

- 9.3.9. The Development Site is located in a transitional area between the lower levels of the Severn Valley to the west and the higher uplands of Breidden Hill and Long Mountain to the east. (see Technical Appendix 9-1: Figure L4)

Landscape Character Assessments

National Level

- 9.3.10. National Landscape Character Areas ("NLCAs") form the broadest scale of landscape character assessment in Wales and information is provided by Natural Resources Wales ("NRW"). Reference is made in the LVIA to NLCAs and National Character Areas ("NCAs") categorised by Natural England. (see Technical Appendix 9-1: Section 3 and Figure L1)
- 9.3.11. The Development Site is located on the western edge of the Shropshire Hills (outliers) NLCA No.18 which is described as an agricultural landscape with hedgerows, mature trees and woodlands. Within the immediate vicinity is the Severn Valley NLCA No.19 (c.320m north-west) which is noted as a major river valley and a transport corridor (road and rail). The Shropshire Hills NCA No.65 (c.2.6km east) comprises a series of ridges, scarps and intervening valleys.

LANDMAP

- 9.3.12. LANDMAP is the formally adopted methodology for landscape character assessment in Wales provided by NRW.
- 9.3.13. Reference is made in the LVIA to LANDMAP sources at a regional scale and more detailed level through the five Aspect layers, namely Geological Landscape, Visual and Sensory, Landscape Habitats, Historic Landscape and Cultural Landscape Services. Broadly, the Aspect Areas are evaluated as Outstanding (nationally important), High (regional or county importance), Moderate (local importance) or Low (little or no importance) by LANDMAP. (see Technical Appendix 9-1: Section 3)

The Development Site Aspect Areas

- 9.3.14. The Development Site is located within the MNTGMVS370 Crewgreen to Forden Hill and Scarp Aspect Area. In terms of the principal study area, it extends to the north-east (c.6km), east (c.2.7km) and south-west (c.10km). (see Technical Appendix 9-1: Figure L3)
- 9.3.15. The Aspect Area is described as a “... *topographical transition between the upland peaks of Breidden Hill and Long Mountain and the floodplain of the River Severn. Largely west facing and typified by a patchwork of grazed and some low intensity arable farming with managed hedgerows, occasional patches of woodland lie along stream courses and in lower lying areas*”.
- 9.3.16. LANDMAP provides an Evaluation Matrix and Overall Evaluation for each Aspect Area. The former includes criteria relating to Scenic quality, Integrity, Character and Rarity. The latter brings together the aforementioned criteria. With regards to the Evaluation Matrix, the following applies to this Aspect Area: Scenic quality (High), Integrity (Moderate), Character (Moderate) and Rarity (Low). In this instance, the Overall Evaluation is classified as Moderate (local importance).
- 9.3.17. Other Aspect layers applicable to the Development Site include the following. Their Overall Evaluation is provided:
- Historic Landscape Aspect Area MNTGMHL310 Buttington/Middletown (High);
 - Landscape Habitat Aspect Area MNTGMLH033 (High); and
 - Geological Landscape Aspect Area MNTGMGL697 Hope (Outstanding)
- 9.3.18. For the Cultural Landscape Services Aspect Area MNTGMCLS044 Crewgreen to Forden Hill and Scarp, night time light pollution is Slight.

Principal Study Area Aspect Areas

- 9.3.19. The LVIA considers Aspect Areas classified through the five LANDMAP layers within the principal study area. (see Technical Appendix 9-1: Section 3 and Appendix 8)
- Visual and Sensory Aspect Areas, Landscape Habitats Aspect Areas and Geological Landscape Aspect Areas are mostly categorised as Moderate (local importance);
 - Historic Landscape Aspect Areas are generally either Outstanding or High. This is based on a ratings score taking into account Integrity, Potential, Rarity, Survival and Condition; and
 - For the Cultural Landscape Services Aspect Areas, for night time light pollution,

overall, levels are generally Negligible with some categorised as Slight or Moderate. A limited number of Aspect Areas are judged to be Substantial.

Powys Landscape Character Assessment Study (2008)

- 9.3.20. The Development Site is situated within the Long Mountain/Breidden Hills Landscape Character Area (“LCA”) M18. Reference is made to the area being used for managed upland grazing, with a notable rectilinear field pattern and lack of individual or hedgerow trees. Limited woodland blocks appear on lower slopes with more expansive areas on higher ground, including some coniferous plantations. (see Technical Appendix 9-1: Section 3 and Appendix 9)

The Shropshire Landscape Typology (2006)

- 9.3.21. The Shropshire Landscape Typology (2006) offers detailed information regarding landscape character and broadly includes the eastern and northern parts of the principal study area. The closest to the Development Site is the Settled Pastoral Farmlands Landscape Type (“LT”) which is described as *“Heavy, poorly drained soils, Pastoral land use, Scattered hedgerow trees, Irregular field pattern and Small to medium scale landscapes”*. (see Technical Appendix 9-1: Section 3 and Appendix 10)

Landscape Designations

- 9.3.22. The Development Site is not located in a statutory or non-statutory landscape designation. Table 9-3 below lists the relevant designations within the principal study area. (see Technical Appendix 9-1: Section 3 and Figure L2)
- 9.3.23. In addition, there are a number of Listed Buildings within c.2km of the Development Site and the nearest are just beyond c.1km within close range:
- Middle Heldre Farmhouse, Grade II (Record Number 15646) (c.1.2km east);
 - Buttington Old Hall Farmhouse, Grade II (Record Number 7903) (c.1.3km south-west); and
 - Trewern Hall, Grade II* (Record Number 7920) (c.1.3km north).
- 9.3.24. More detailed information regarding Listed Buildings and Scheduled Monuments etc. is provided in the Archaeology and Cultural Heritage Assessment (see Chapter 12 and associated Technical Appendix 12-1) submitted as part of the DNS application.

Table 9-3: Landscape Designations

Designation (Reference/Name)	Distance and Direction (Range)
National Trust	
Powis Castle and Garden	c.6km south-west (medium range)
Register of Parks and Gardens of Special Historic Interest in Wales (Cadw) and Register of Parks and Gardens of Special Historic Interest in Wales Essential Settings (Cadw)	
PGW (Po) 53 (POW) Maesfron (Grade II)	c.1.6km north-east (close range)
PGW (Po) 34 (POW) Leighton Hall (Grade I) (NB. the northern periphery of the essential setting is within the principal study area)	c.5km south (medium range)
PGW (Po) 36 (POW) Llanerchydol Hall (Grade II*)	c.5.7km south-west (medium range)
PGW (Po) 35 (POW) Powis Castle Garden (Grade I)	c.6km south-west (medium range)
PGW(Po) 41 (POW) Bryngwyn Hall (Grade II*) (NB. the south-eastern part of the essential setting is within the principal study area)	c.11.2km north-west (long range)
PGW(Po) 31 (POW) Glansevern Hall (Grade II*)	c.11.4km south-west (long range)
PGW(Po) 32 (POW) Vaynor Park (Grade I)	c.12.6km south-west (long range)
PGW(Po) 42 (POW) Bodynfoel Hall (Grade II) (NB. the western edge of the essential setting is within the principal study area)	c.13.2km north-west (long range)
PGW(Po) 58 (POW) Garthmyl Hall (Grade II)	c.13.3km south-west (long range)
Historic Landscape	
Vale of Montgomery Historic Landscape No.35	c.7.8km south (long range)
Conservation Areas	
Welshpool	c.4.5km south-west (medium range)
Llanymynech	c.10.7km north (long range)
Bwlch-y-cibau	c.11.5km north-west (long range)
Aberriw/Berriew	c.12.2km south-west (long range)
Scheduled Monuments (Cadw)*	
MG120 Strata Marcella Abbey	c.1.7km west (close range)
MG143 Crowther's Coppice Camp	c.2.4km north-west (close range)
MG224 Offa's Dyke: South of School House	c.2.5km south-west (close range)

Notes to Table

* identified in the principal study area within c.2.5km of the stack.

Likely Future Conditions

- 9.3.25. If the Development does not proceed, then the Development Site will remain in its current state, namely one that represents a greatly altered landscape due to quarry working. The existing state and condition of the Development Site is poor in landscape and visual terms and features typical characteristics of mineral extraction.
- 9.3.26. It is assumed that quarrying will continue in accordance with existing planning permissions. It is understood that no restoration plan exists for the Development Site.
- 9.3.27. The Development Site has partly been identified as being suitable for employment use (including waste uses) through the Powys Local Development Plan 2011 – 2026. It is unknown whether alternative proposals to the Development will come forward, however it is likely that quarrying would continue until all viable material is worked out and the area

zoned for employment use is prepared for future development. Once the quarry is depleted and a flat development platform has been provided, it is likely that planning permission would be sought for large storage and distribution warehouses and office accommodation.

- 9.3.28. Given the lifetime of operation (c.30 years), it is understood that there is the potential for the equipment associated with the Development to be upgraded/replaced as required in the future. Alternatively, the ERF could be decommissioned after this period and the Development Site used for other employment uses.

9.4. Environmental Effects Assessment

Introduction

- 9.4.1. The purpose and approach of the LVIA is to establish the main impacts of the Development upon landscape character, landscape designations and identified visual receptors against a defined baseline situation. It then determines the consequences and what the nature of these effects are likely to be. It assesses effects beyond or different to the baseline situation previously set out in Section 9.3 of this Chapter.
- 9.4.2. This Section discusses the effect and an assessment of significance is provided in Section 9.5.
- 9.4.3. Mitigation measures form an integral part of the Development and primarily apply to the operation phase. They are set out in detail in the LVIA (see Technical Appendix 9-1: Section 4) and are considered as part of the assessment of landscape and visual effects where stated. The Landscape Masterplan illustrates the landscape proposals and are summarised in this Chapter. The LVIA includes a series of Illustrative Cross Sections (1 to 6) (see Technical Appendix 9-1: Appendix 3).
- 9.4.4. The Landscape Masterplan shows the proposed internal access route to the ERF and an alternative option. Materials and plant used during the construction of the ERF will be temporarily stored in four Laydown Areas. Following which, it is proposed that Laydown Areas 3 and 4 will be used for future employment based uses.
- 9.4.5. During construction, no mitigation measures relevant to the LVIA have been incorporated into the Development given the activities involved and relatively short duration.
- 9.4.6. During operation, the key elements of the landscape strategy include:
- Buttington Brickworks geological SSSI will not be affected by the Development.
 - Retained mature woodland on the southern Site boundary as part of the Development;
 - Remnant faces in the northern sector of the quarry will be restored;
 - A comprehensive screen bund design along the south-western and south-eastern boundaries will ensure that a high proportion of the ERF and also Laydown Area 4 remains hidden from view;
 - Extensive areas of native broadleaved woodland will be established on the screen bunds and restored northern quarry slopes to provide both visual and biodiversity enhancement in the long term. Proposed planting will strengthen the existing

framework of woodland both within and adjacent to the Development Site.

- Provision for detailed landscape treatment of the new access road by creating areas of native broadleaved woodland together with open mosaic habitat and species rich neutral grassland to the grass verges; and
- SuDS include a surface water attenuation pond together with amphibian wetland and peripheral habitat creation.

9.4.7. As stated, the operation phase does not consider the additional screening benefits of new woodland planting shown on the Landscape Masterplan. Consideration is given to the screen bunds only.

9.4.8. The Development incorporates a simplified building form and the selected cladding colours are designed to be sympathetic to the existing landscape setting and represent a positive design solution. More detailed information regarding the design process is provided in the Design and Access Statement.

9.4.9. Relevant to the operation phase are the following aspects of the architectural design and layout of the Development:

- With regards to the landform and landuse of the Development Site. The ERF is set on a north-east to south-west configuration and situated in the quarry void in the central environs of the Development Site (see Technical Appendix 9-1: Appendix 3);
- In terms of the wider landscape setting, the ERF is generally seen within a landform background, thus, with predominant land colour and with prevailing natural shades of green and light brown hues. The scale of ERF building is appropriate and in balance with the large scale nature of the landscape;
- The proposed stack is bicolour to mitigate skyline views where available;
- Particular care has been given to consider potential views of the rooflines at the skyline. The main ERF building features a graduated roofline to avoid a boxy appearance;
- The proposed cladding colour scheme is designed to merge and not contrast with the landscape. In addition, it intended to be regressive into views and not form a focus;
- The ERF is well hidden from the environs of Trewern. Where it is seen from more elevated locations, it is only the upper part of the ERF building and stack that is visible and is appropriate in scale. The Development Site is at some distance from other settlement areas such as Welshpool; and
- Careful consideration has been given to known sensitive receptors including views from cultural heritage sites such as Powis Castle and Garden together with views along key tourist routes into Wales. Such factors have influenced the siting of proposed built form and landscape proposals incorporated into the Landscape Masterplan.

9.4.10. Studies carried out as part of the EIA and detailed in the Design & Access Statement have shown that the selected colour cladding scheme will be appropriate in both summer and winter scenes. This is also evaluated in the LVIA (see Technical Appendix 9-1: Section 6) and is summarised in this Chapter.

9.4.11. During decommissioning, the presence of screen bunds and proposed native woodland planting as it matures are taken into account.

9.4.12. No additional mitigation measures were identified in relation to the above phases following the undertaking of the LVIA.

- 9.4.13. Each phase of the Development is considered separately.

Construction Phase Effects - Landscape Character

- 9.4.14. When considering landscape character effects, the main sources of impact relate to ground modelling to facilitate the ERF and the earthworks to complete the existing screen bund along Sale Lane and proposed screen bunds elsewhere within the Development Site along with native broadleaved tree planting shown on the Landscape Masterplan.
- 9.4.15. With reference to direct effects on the Shropshire Hills (outliers) NLCA No.18, the Development is not of a scale either during the construction phase whereby it would notably modify any key characteristics due to the size and diversity of the NLCA. There will be no indirect effects on other NLCAs and NCAs within the principal study area. (see Technical Appendix 9-1: Section 5 and Figure L1).
- 9.4.16. During construction, direct effects relate to the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area and indirect effects concern the wider Aspect Area (i.e. outwith the Development Site) together with other Visual and Sensory Aspect Areas within the principal study area. (see Technical Appendix 9-1: Section 5 and Figure L3).
- 9.4.17. The MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area is classified as Moderate (local importance) in the LANDMAP Overall Evaluation. With regards to the Evaluation Matrix, the following applies: Scenic quality (High), Integrity (Moderate), Character (Moderate) and Rarity (Low). Reference is made to attractive views outwith the Aspect Area of the *“surrounding rolling and upland landscapes”*.
- 9.4.18. B&A carried out a detailed assessment of the Development Site related LANDMAP Aspect Areas, Site analysis and their application to the current situation and the Development. Although characteristics typical of the Aspect Area are found within the immediate vicinity including a pattern of agricultural fields (both arable and pasture) divided by hedgerows and small woodland blocks, important local variations occur within the Development Site. It includes a few distinctive attributes, notably the broad band of mature woodland on the southern Development Site boundary. Whereas, the majority of the Development Site represents a much changed landscape due to mineral extraction and currently includes typical features such as tracks, exposed mineral and a partially complete screen bund.
- 9.4.19. The area encompassing the proposed ERF building and stack will be sited in the central environs of the Development Site within a quarry void. During the construction phase, the Development will require necessary ground modelling and earthworks to take place. The latter involves the completion of the screen bund adjacent to Sale Lane. Along with other proposed screen bunds, this will be grass seeded and planted with native woodland trees.
- 9.4.20. In principal, the Development will have an indirect effect on the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area, which as noted, is classified as Moderate (local importance). Monitoring of the Aspect Area draws attention to the *“Transitional landform between Breidden Hill, Long Mountain and the River Severn”*.
- 9.4.21. The Aspect Area extends to the north-east (c.6km), east (c.2.7km) and south-west (c.10km)

of the Development Site.

- 9.4.22. Reference to the ZTV shows that it broadly extends to the east and south within close range, to the north-east to medium range and is absent apart from a limited area to the long range. (see Technical Appendix 9-1: Figure L3) Indirect effects will be limited overall due to the current context of the Development Site and the nature of the Development.
- 9.4.23. In the LVIA, to assess indirect effects on other Visual and Sensory Aspect Areas within the principal study area, B&A considered each Aspect Area in turn using the LANDMAP Evaluation Matrix and Overall Evaluation. (see Technical Appendix 9-1: Section 5)
- 9.4.24. Indirect effects on the LANDMAP Visual and Sensory Aspect Areas during construction are assessed in detail in the LVIA. This relates to the changes to the Development Site for example, the construction of the ERF building and stack, removal of built form and associated scaffolding. Of particular note are the following:
- In the vicinity (within 500m): MNTGMVS650 River Severn Flood Plain;
 - Close range (500m to 3km): MNTGMVS301 Long Mountain and MNTGMVS612 Guilsfield Rolling Farmlands, MNTGMVS620 Breidden Hill and MNTGMVS762 Welshpool; and
 - Long range (beyond 6km): MNTGMVS513 Llanymynech Hill and MNTGMVS875 Llanfyllin Mosaic North.

Construction Phase Effects - Landscape Designations

- 9.4.25. Indirect effects have been considered further in relation to:
- Trewern Hall, Grade II* Listed Building (c.1.3km north);
 - Maesfron (Grade II Registered Park and Garden of Special Historic Interest in Wales and essential setting) (CADW) (c.1.6km north-east); and
 - Powis Castle and Garden (National Trust and Grade I Registered Park and Garden of Special Historic Interest in Wales and essential setting) (CADW) (c.6km south-west).
- 9.4.26. With regards to the above, a detailed assessment is provided in the LVIA. (see Technical Appendix 9-1: Section 5). Indirect effects primarily relate to views of crane movements and other aspects (e.g. construction of the ERF building and stack, removal of built form and associated scaffolding).

Construction Phase Effects - Visual Impact

- 9.4.27. With reference to the Development, the main sources of change relate to ground modelling to facilitate the ERF and the earthworks to complete the existing screen bund along Sale Lane and the proposed screen bunds elsewhere within the Site along with native broadleaved tree planting shown on the Landscape Masterplan. The screen bunds offer effective screening features at close range and additional woodland planting will help to integrate the bunds at a close and medium range. Views of crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF are also considered.
- 9.4.28. Broadly, a combination of topography and the presence of some woodland elsewhere within the principal study area plays an important role in restricting wider views of the proposed ERF building and stack. However, topography is the key determining factor.

Assessment of the visibility of the stack compared to the ERF building has been undertaken to understand where the stack may become visible in isolation, namely without context to the overall Development. (see Technical Appendix 9-1: Figures L5 and L6)

- 9.4.29. The Viewpoint Locations have been selected as being representative of the range of potential views of the Development Site and to enable an assessment of the landscape and visual effects resulting from the Development. In so doing, it informs the overall conclusion of the visual capacity.
- 9.4.30. Receptors include residents, road users, visitors to Powis Castle and footpath users including on the Offa's Dyke National Trail. (see Technical Appendix 9-1: Section 6 and Figures L7 and L8)
- 9.4.31. Figures L9 to L109 of the LVIA (see Technical Appendix 9-1) present the individual viewpoint photographs. This includes panoramic photographs, single frame photograph enlargements and photomontage views for each Viewpoint Location apart from for Viewpoints 34 and 35 which assesses the access road.
- 9.4.32. Table 9-4 below lists the Viewpoint Locations, describes the location of the photograph, the identified receptor and distance/direction (range) from the Development Site. The formation of the Development access road by Heavy Goods Vehicles ("HGVs") is considered through Viewpoint Location 34 and 35.

Table 9-4: Viewpoint Locations Assessed in the LVIA

VP. No	Location	Description	Receptor	Distance/Direction (Range)
Immediate Vicinity and Close Range Views to the South-East, South and South-West				
1	From Heldre Lane immediately west of Whitehouse Farm	Taken from the access track immediately alongside Heldre Lane to best imitate potential upper floor views from the residential property and adjacent environs.	Residents (both ground and potential first floor locations/gardens) and road users	300m south-west (immediate vicinity)
2	From Heldre Lane	Taken from grass verge alongside Heldre Lane, to best imitate potential views gained from vehicles travelling northward on the Lane.	Road users	480m south-east (immediate vicinity)
3	From public footpath immediately south of Nelly Andrews' Green	Assumed location of footpath alongside a farm track to enable northward views to the Development Site.	Footpath users	710m south (close range)
4	From Heldre Lane at Upper Heldre	From gateway adjacent to Heldre Lane to best demonstrate potential maximum views from Heldre Lane including adjacent residential properties.	Residents (ground floor locations/gardens) and road users	990m south-east (close range)
5	From public footpath south of Buttington leading towards the Longmountain	From assumed location of definitive route on the north side of Oak Plantation.	Footpath users	1.3km south (close range)
6	From public footpath on Heldre Hill	From assumed location of footpath route.	Footpath users	1.4km south-east (close range)
7	From Brunant, immediately south of Pob Ceiniog	From a farm track.	Residents (ground floor locations/gardens) and footpath users	1.65km south-east (close range)
Close and Medium Range Views to the North, North-East and East				
8	From A458 at Cefn	From footpath (pavement) alongside main road.	Residents (upper floor windows) and road users	1.1km north-east (close range)
9	From A458 at Trewern	From grass verge at junction with Garreg Bank alongside main road.	Residents (upper floor windows) and road users	1.9km north-east (close range)
10	From Garreg Bank (lower), Trewern	From vehicle passing bay alongside public road.	Residents (ground floor locations/gardens) and road users	1.7km north-east (close range)

Table 9-4: Viewpoint Locations Assessed in the LVIA (cont)

VP. No	Location	Description	Receptor	Distance/Direction (Range)
Close and Medium Range Views to the North, North-East and East (cont)				
11	From Garreg Bank (upper), Trevern	From roadside where hedge gap has been formed.	Residents (upper floor windows) and road users	1.9km north-east (close range)
12	From Crigigion Lane, Trevern	From grass verge alongside public road.	Residents (upper floor windows) and road users	1.7km north-east (close range)
13	From lane at Golfa Bank and adjacent to The Old Shop Cottage	From field gateway immediately alongside public road.	Residents (upper floor windows) and road users	2.3km north-east (close range)
14	From Bacheldre Lane adjacent to Oak Grange	From public road.	Residents (ground floor locations/gardens) and road users	3.5km east (medium range)
15	From A458 west of Wollaston	From gateway alongside public road.	Road users	5.6km east (medium range)
16	From Moel y Golfa	From woodland clearing on used route of footpath.	Footpath users	3km north-east (close range)
17	From Middletown Hill	From the upper part of Middletown Hill.	Walkers (general recreation)	5km north-east (medium range)
18	From Rodney's Pillar	From the south-western side of Rodney's Pillar.	Established viewing point at Rodney's Pillar	5km north (medium range)
Close Range Views to the North-West				
19	From public footpath near Coppice East Farm (near Pool Quay)	From edge of open field near footpath stile.	Residents (ground floor locations/gardens) and footpath users	2.3km north-west (close range)
20	From A483 at Pool Quay	From gateway on edge of the public road and adjacent to the footpath stile.	Offa's Dyke Path National Trail users and road users	1.8km north-west (close range)
21	From A483 near Pool Quay at Strata Marcella Abbey	From canal path immediately alongside the public road.	Offa's Dyke Path National Trail users and road users	1.8km north-west (close range)

Table 9-4: Viewpoint Locations Assessed in the LVIA (cont)

VP. No	Location	Description	Receptor	Distance/Direction (Range)
Close and Medium Range Views to the South-West				
22	From A458 at Buttington Bridge	From grass verge immediately north of Buttington Bridge.	Offa's Dyke Path National Trail users and workers at nearby employment areas and road users	2.4km south-west (close range)
23	From B4381 at Welshpool	From northern side of bridge on the roadside.	Residents (upper floor windows) and road users	5km south-west (medium range)
Long Range Views to the South-West				
24	From Powis Castle, Welshpool	From upper garden terrace on the north-eastern side of Powis Castle.	Visitors to Powis Castle	6.4km south-west (long range)
25	From Y Golfa (Welshpool Golf Club)	On apparent footpath near to the trig point.	Footpath users	8.9km south-west (long range)
26	From A483 at Rhiw Bridge (Berriew)	From grass verge alongside public road.	Road users	12km south-west (long range)
27	From public footpath between Y Brywydd and Castle Caereinion	From open field and hill top.	Footpath users	13.4km south-west (long range)
Medium and Long Range Views to the North, North-East and North-West				
28	From A483 at Ardeleen	From gateway alongside public road.	Residents (upper floor windows) and road users	5km north (medium range)
29	From Castlehill Lane, Burgedin	From raised verge alongside public road.	Road users	5.7km north-west (medium range)
30	From the Severn Way, east of Tredernen	From flood defence embankment and public path.	Severn Way long distance footpath users	6.3km north-east (long range)
31	From Llanymynech Hill	From edge of golf course and near quarry face.	Footpath users and recreation users at Llanymynech Golf Club	11.7km north (long range)
32	From Quarry Lane and Offa's Dyke Path, Nantmawr	From public road alongside footpath stile.	Offa's Dyke Path National Trail users and residents (ground floor locations/gardens)	14.6km north (long range)
33	From Green Hall Hill, Brynelltyn, Llanfyllin	From walked track and apparent lookout point on eastern side of the hill.	Walkers (general recreation)	14.1km north-west (long range)

Table 9-4: Viewpoint Locations Assessed in the LVIA

VP. No	Location	Description	Receptor	Distance/Direction (Range)
Views from the Access Road				
34	N/A		Road users	
35	N/A		Road users	

Visual Impact Assessment

- 9.4.33. In the immediate vicinity of the Development Site, at Viewpoint Location 1 From Heldre Lane immediately west of Whitehouse Farm, views were assessed for residents (both ground and potential first floor locations/gardens) and road users. Viewpoint Location 2 From Heldre Lane assessed views for road users. Effects relate to the crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF. Also of note is the formation and establishment of the screen bunds (i.e. grass seeded and planted with native broadleaved trees).
- 9.4.34. At a close range, the following Viewpoint Locations are of note:
- Viewpoint Location 3 From public footpath immediately south of Nelly Andrews' Green, for footpath users;
 - Viewpoint Location 4 From Heldre Lane at Upper Heldre and Viewpoint Location 10 From Garreg Bank (lower), Trewern are from the road network in nearby settlement areas and considered views for residents (ground floor locations/gardens) and road users; and
 - Viewpoint Location 22 From A458 at Buttington Bridge, for Offa's Dyke Path National Trail users and for workers at nearby employment areas and road users.
- 9.4.35. In the above cases, effects relate to crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF. In the case of Viewpoint Locations 10 and 22, this will be against the skyline. Other aspects of note include the screen bund along Sale Lane which will be completed, grass seeded and planted with native broadleaved trees (for Viewpoint Locations 3, 4 and 10). Vehicle movements and the temporary storage of materials in Laydown Area 4 will be relevant at Viewpoint Location 3. Whilst ground modelling in the central environs of the Development Site including the formation of the screen bund immediately south of the ERF building and restored northern quarry face will be in view at Viewpoint Location 4.
- 9.4.36. The following Viewpoint Locations are also relevant within close range:
- Viewpoint Location 7 From Brunant, immediately south of Pob Ceiniog, for residents (ground floor locations/gardens) and footpath users;
 - Viewpoint Location 19 From public footpath near Coppice East Farm (near Pool Quay), for residents (ground floor locations/gardens) and footpath users; and
 - Viewpoint Location 20 From A483 at Pool Quay, for Offa's Dyke Path National Trail users and road users.
- 9.4.37. In all of the above cases, views will be possible of crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF. At Viewpoint Location 7, potential views are also available of ground modelling in the central environs of the Development Site and earthworks relating to the screen bunds which will be grass seeded and planted with native broadleaved trees.
- 9.4.38. The following Viewpoint Locations are of note for residents (upper floor windows) and road users at close range:
- Viewpoint Location 8 From A458 at Cefn;
 - Viewpoint Location 9 From A458 at Trewern;
 - Viewpoint Location 11 From Garreg Bank (upper), Trewern; and

- Viewpoint Location 13 From lane at Golfa Bank and adjacent to The Old Shop Cottage.

- 9.4.39. Views will be possible of crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF. The screen bund along Sale Lane will be completed, grass seeded and planted with native broadleaved trees. In terms of Viewpoint Location 9, ground modelling within the central environs of the Site relating to the restored northern quarry face will be in view.
- 9.4.40. Viewpoint Location 14 (from Bacheldre Lane) is relevant (medium range) and views have been considered for residents (ground floor locations/gardens) and for road users. Effects concern crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF.
- 9.4.41. Viewpoint Location 18 From Rodney's Pillar is from the established viewing point at Rodney's Pillar (medium range) and is of note. Effects relate to partial views of crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF. Also relevant are potential views of ground modelling (in the central environs of the Development Site) and earthworks associated with screen bunds which will be grass seeded and planted with native broadleaved trees. The temporary storage of materials in Laydown Area 4 may also be seen.
- 9.4.42. At Viewpoint Location 24 From Powis Castle, Welshpool, views are assessed for visitors to Powis Castle (long range). Effects relate to potential views of crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF together with ground modelling within the Development Site.

Construction Effects – Construction of Road Access

- 9.4.43. The LVIA has assessed the construction of the proposed access road from Viewpoint Locations 34 and 35 (see Technical Appendices 9-1: Figures L108 and L109). A summary is provided below:
- Viewpoint Location 34: Looks northwards and is near to the point where the road will be widened, the ghost island created and the turning into the Site will be clearly visible. This will also extend the overall visibility into the quarry area. The loss of vegetation and trees along the embankment is limited to some remaining sporadic trees and scrub; and
 - Viewpoint Location 35: Looks directly southwards and is located at the northernmost position where the roadside embankment on the left of the photograph will be removed and the new road alignment taken further to the left hand side. The access area will be visible but the intervening embankment features would restrict a wider view of the quarry environs until the road user is immediately alongside the new access point.

Operation Phase Effects - Landscape Character

- 9.4.44. When considering landscape character effects, the main sources of impact relate to the presence of the screen bunds and the ERF building including the energy recovery hall (46m high), waste reception hall (23m high) and stack (70m high).
- 9.4.45. With reference to direct effects on the Shropshire Hills (outliers) NLCA No.18, the Development is not of a scale whereby it would notably modify any key characteristics due to the size and diversity of the NLCA. There will be no indirect effects on other NLCAs and NCAs within the principal study area. (see Technical Appendix 9-1: Section 5 and Figure L1).
- 9.4.46. The Development Site is located in the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area. The Development will introduce new elements namely, the proposed ERF building and stack.
- 9.4.47. Indirect effects on the LANDMAP Visual and Sensory Aspect Areas during operation are assessed in detail in the LVIA and summarised below.
- 9.4.48. With regards to the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area, indirect effects will be limited overall due to the current context of the Development Site and the nature of the Development in this instance. Indirect effects will relate to the presence of new built form (i.e. ERF building and stack) and overall changes to the Development Site.
- 9.4.49. Indirect effects as described above will also apply to the following LANDMAP Visual and Sensory Aspect Areas:
- In the vicinity (within 500m): MNTGMVS650 River Severn Flood Plain; and
 - Close range (500m to 3km): MNTGMVS301 Long Mountain, MNTGMVS612 Guilsfield Rolling Farmlands, MNTGMVS620 Breidden Hill and MNTGMVS762 Welshpool.

Operational Phase Effects - Landscape Designations

- 9.4.50. Indirect effects have been considered further in relation to:
- Trewern Hall, Grade II* Listed Building (c.1.3km north);
 - Maesfron (Grade II Registered Park and Garden of Special Historic Interest in Wales and essential setting) (CADW) (c.1.6km north-east); and
 - Powis Castle and Garden (National Trust and Grade I Registered Park and Garden of Special Historic Interest in Wales and essential setting) (CADW) (c.6km south-west).
- 9.4.51. With regards to the above, a detailed assessment is provided in the LVIA. (see Technical Appendix 9-1: Section 5). Indirect effects primarily relate to views of the ERF building and stack.

Operation Phase Effects - Visual Effects

Visual Impact Assessment

- 9.4.52. With reference to the Development, the main sources of change relate to views of the upper elevations and rooflines of the ERF building including the energy recovery hall (46m high), waste reception hall (23m high) and stack (70m high).
- 9.4.53. As stated, generally, a combination of topography and the presence of some woodland elsewhere within the principal study area plays an important role in restricting wider views of the proposed ERF building and stack. However, topography is the key determining factor. Assessment of the visibility of the stack compared to the ERF building has been undertaken to understand where the stack may become visible in isolation, namely without context to the overall Development. (see Technical Appendix 9-1: Figures L5 and L6)
- 9.4.54. The Viewpoint Locations have been selected as being representative of the range of potential views of the Development Site and to enable an assessment of the landscape and visual effects resulting from the Development. The Viewpoint locations are the same as the construction phase and are provided in Table 9-4.
- 9.4.55. Figures L9 to L109 of the LVIA (see Technical Appendix 9-1) present the individual viewpoint photographs. This includes panoramic photographs, single frame photograph enlargements and photomontage views for each Viewpoint Location apart from for Viewpoint Locations 34 and 35 which assesses the access road.
- 9.4.56. In the immediate vicinity of the Development Site, at Viewpoint Location 1 From Heldre Lane immediately west of Whitehouse Farm, views were considered for residents (both ground and potential first floor locations/gardens) and road users. Effects relate to a clear view of the upper elevation and roofline of the ERF building and the stack against the skyline. The former will reduce distant views of the lower slopes of Moel y Golfa.
- 9.4.57. At Viewpoint Location 2 From Heldre Lane (for road users), effects relate to a clear view of the upper elevation and graduated roofline of the ERF building against a backdrop of higher ground. Whilst the upper part of the stack is seen against the skyline.
- 9.4.58. Viewpoint Location 10 From Garreg Bank (lower), Trewern is within close range and considers views for residents (ground floor locations/gardens) and road users. Effects relate to a clear view of the upper elevation of the ERF building and stack against the skyline seen at an acute angle.
- 9.4.59. Also at close range are the following Viewpoint Locations:
- Viewpoint Location 4 From Heldre Lane at Upper Heldre, for residents (ground floor locations/gardens) and for road users. Effects relate to a clear view of the upper elevation and graduated roofline of the ERF building and the stack against a backdrop of higher ground; and
 - Viewpoint Location 22 From A458 at Buttington Bridge for Offa's Dyke Path National Trail users and for workers at nearby employment areas and road users. Effects relate to a clear view of the stack and the upper elevations of the ERF building seen at an acute angle and against the skyline.

- 9.4.60. Also relevant are the following Viewpoint Locations at close range for the identified receptors:
- Viewpoint Location 3 From public footpath immediately south of Nelly Andrews' Green for footpath users;
 - Viewpoint Location 8 From A458 at Cefn for residents (upper floor windows) and road users;
 - Viewpoint Location 9 From A458 at Trewern for residents (upper floor windows) and road users;
 - Viewpoint Location 11 From Garreg Bank (upper), Trewern for residents (upper floor windows) and road users;
 - Viewpoint Location 12 From Criggion Lane for residents (upper floor windows) and road users; and
 - Viewpoint Location 13 From lane at Golfa Bank and adjacent to The Old Shop Cottage for residents (upper floor windows) and road users.

- 9.4.61. In all cases, there will be clear views of the upper elevation and roofline of the ERF building but this varies between a backdrop of higher ground (Viewpoint Location 3), skyline (Viewpoint Location 8, 9, 12 and 13) and a combination of both (Viewpoint Location 11). When considering mitigation measures, the siting of the ERF building and stack (i.e. at a low level) along with screen bunds are of consequence. In terms of architectural design, the ERF building has a graduated appearance. In all cases, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. Whilst views of the lower elevations of proposed built form are also restricted by intervening vegetation outwith the Development Site.

Consideration of Plume Visibility

- 9.4.62. The LVIA considers both the average calculated visible plume as illustrated by the photomontage images and a worst case scenario of the calculated maximum visible plume from Viewpoint Location 11: From Garreg Bank (upper), Trewern for residents (upper floor windows) and road users which is within close range (c.1.9km north-east).
- 9.4.63. The plume is taken into account as part of the assessment of the overall visibility of the stack illustrated by the photomontage images presented in the LVIA. The methodology is detailed in the LVIA (see Technical Appendix 9-1: Appendix 1). However, for the most part, the average visible plume does not represent a significant detractor.
- 9.4.64. It is acknowledged that when visible, it has the potential to heighten the visibility of the stack and therefore, the Development in a wider landscape context. Generally, this is dependent on a number of factors:
- Atmospheric conditions will have an influence on the visible presence of the plume. For example, in winter months when low temperature and humidity are more frequent, the plume length and visibility may be more apparent. Whilst in summer months, both would decline; and
 - Presence of cloud cover or clear blue skies as the latter will lead to an increased contrast with the visible plume.
- 9.4.65. In Chapter 6 Air Quality, the modelling indicates that when visible, the plume length is predicted to be short (c.4m for 30% of daylight hours). It is forecasted to extend to up to

107m in length for 5% of the time and would remain within the Development site boundary (113m from the stack location). Given the results of the modelling, the plume will be visible for a limited number of daylight hours.

- 9.4.66. In the case of a worst case scenario explored at Viewpoint Location 11: From Garreg Bank (upper), Trewern. In such instances, this longer visible plume will accentuate the context of the visibility of the overall ERF building and in particular the stack. However, two factors are of note, firstly, the transient nature of the visible plume and secondly, the wider context of the Site within which the visible plume will disperse, albeit, over a longer range than ordinarily experienced.

Consideration of the Proposed Lighting Scheme

- 9.4.67. Selected Viewpoint Locations within close range have been assessed in the LVIA. The results relate primarily to the noted receptors rather than other groups (e.g. footpath users):
- Viewpoint Location 4 From Heldre Lane at Upper Heldre: The proposed lighting scheme will create a low level of glow which could also illuminate the outline of new built form. Receptors include residents (ground floor locations/gardens) and road users;
 - Viewpoint Location 6 From footpath on Heldre Hill: The Development Site is located between the existing areas of main light intrusion and is within an area of greater darkness. Thus, low levels of observed night glow will be less intrusive than the light spill. Locations may be gained observing the night sky and incorporating the Development Site. The Viewpoint Location is assessed for general night time views and not specific receptors;
 - Viewpoint Location 7 From Brunant, immediately south of Pob Ceiniog: The Development Site which is located in an area of greater darkness will become more visible at night due to the effects of sky glow, although direct lighting spill is not anticipated to be a cause of impact. It will be seen as an extension to the current light spill/sky glare at Trewern which as this direction of view creates a close link in visual terms to the Development Site. Receptors include residents (ground floor locations/gardens);
 - Viewpoint Location 11 From Garreg Bank (upper), Trewern: The proposed lighting scheme for the Development Site will almost be totally hidden though some residual sky glow may be observed. Receptors include residents (upper floor windows) and road users; and
 - Viewpoint Location 21 From A483 near Pool Quay at Strata Marcella Abbey: The proposed lighting will only be detected as a result of sky glow rather than direct lighting. Receptors include road users.

Decommissioning Phase Effects - Landscape Character

- 9.4.68. When considering landscape character effects, the main sources of impact relate to the removal of built form and ground restoration. This will include crane movements. Consideration is given to proposed native woodland planting shown on the Landscape Masterplan.

- 9.4.69. With reference to direct effects on the Shropshire Hills (outliers) NLCA No.18, the Development is not of a scale either during the decommissioning phase whereby it would notably modify any key characteristics due to the size and diversity of the NLCA. There will be no indirect effects on other NLCAs and NCAs within the principal study area. (see Technical Appendix 9-1: Section 5 and Figure L1).
- 9.4.70. During decommissioning, direct effects relate to the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area and indirect effects concern the wider Aspect Area (i.e. outwith the Development Site) together with other Visual and Sensory Aspect Areas within the principal study area. (see Technical Appendix 9-1: Section 5 and Figure L3).
- 9.4.71. The MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area is classified as Moderate (local importance) in the LANDMAP Overall Evaluation. With regards to the Evaluation Matrix, the following applies: Scenic quality (High), Integrity (Moderate), Character (Moderate) and Rarity (Low). Reference is made to attractive views outwith the Aspect Area of the *“surrounding rolling and upland landscapes”*.
- 9.4.72. Decommissioning will involve the removal of built form and ground restoration. As new native woodland planting matures, it will provide long term enhancement and mitigation for future employment uses at the Site. Whilst the Landscape Masterplan also incorporates areas of open mosaic habitat and species-rich neutral grassland. SuDS measures include a surface water attenuation pond together with amphibian wetland and peripheral habitat creation.
- 9.4.73. In principal, the Development will have an indirect effect on the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area, which as noted, is classified as Moderate (local importance). Monitoring of the Aspect Area draws attention to the *“Transitional landform between Breidden Hill, Long Mountain and the River Severn”*.
- 9.4.74. The Aspect Area extends to the north-east (c.6km), east (c.2.7km) and south-west (c.10km) of the Development Site.
- 9.4.75. Reference to the ZTV shows that it broadly extends to the east and south within close range, to the north-east to medium range and is absent apart from a limited area to the long range. (see Technical Appendix 9-1: Figure L3) There is the potential for some long term benefits due to proposed native woodland planting as it matures, notably within close range.
- 9.4.76. In the LVIA, to assess indirect effects on other Visual and Sensory Aspect Areas within the principal study area, B&A considered each Aspect Area in turn using the LANDMAP Evaluation Matrix and Overall Evaluation. (see Technical Appendix 9-1: Section 5)
- 9.4.77. Indirect effects on the LANDMAP Visual and Sensory Aspect Areas during decommissioning are assessed in detail in the LVIA. This relates to the changes to the Development Site for example, the removal of the ERF building, stack and other built form and associated scaffolding. Of particular note are the following:
- In the vicinity (within 500m): MNTGMVS650 River Severn Flood Plain;
 - Close range (500m to 3km): MNTGMVS301 Long Mountain and MNTGMVS612 Guilsfield Rolling Farmlands, MNTGMVS620 Breidden Hill and MNTGMVS762

Welshpool; and

- Long range (beyond 6km): MNTGMVS513 Llanymynech Hill and MNTGMVS875 Llanfyllin Mosaic North.

Decommissioning Phase Effects - Landscape Designations

9.4.78. Indirect effects have been considered further in relation to:

- Trewern Hall, Grade II* Listed Building (c.1.3km north);
- Maesfron (Grade II Registered Park and Garden of Special Historic Interest in Wales and essential setting) (CADW) (c.1.6km north-east); and
- Powis Castle and Garden (National Trust and Grade I Registered Park and Garden of Special Historic Interest in Wales and essential setting) (CADW) (c.6km south-west).

9.4.79. With regards to the above, a detailed assessment is provided in the LVIA. (see Technical Appendix 9-1: Section 5). Indirect effects primarily relate to views of crane movements and other aspects (e.g. removal of the ERF building and stack etc. and associated scaffolding).

Decommissioning Phase Effects - Visual Impact

9.4.80. With reference to the Development, the main sources of change relate to the removal of built form and ground restoration which will involve crane movements.

9.4.81. The Viewpoint Locations have been selected as being representative of the range of potential views of the Development Site and to enable an assessment of the landscape and visual effects resulting from the Development. In so doing, it informs the overall conclusion of the visual capacity.

9.4.82. Receptors include residents, road users, visitors to Powis Castle and footpath users including on the Offa's Dyke National Trail. (see Technical Appendix 9-1: Section 6 and Figures L7 and L8)

9.4.83. Table 9-4 earlier in this Chapter lists the Viewpoint Locations, describes the location of the photograph, the identified receptor and distance/direction (range) from the Development Site.

9.4.84. In the immediate vicinity of the Development Site, at Viewpoint Location 1 From Heldre Lane immediately west of Whitehouse Farm, views were considered for residents (both ground and potential first floor locations/gardens) and road users. There will be views of crane movements etc. seen at the skyline. Whilst there will be a lack of available views of Site activities relating to ground restoration. However, native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting.

9.4.85. At a close range, the following Viewpoint Locations are of note:

- Viewpoint Location 3 (From public footpath immediately south of Nelly Andrews' Green) for footpath users;
- Viewpoint Location 4 (From Heldre Lane at Upper Heldre). Receptors include residents (ground floor locations/gardens) and road users;
- Viewpoint Location 10 (Garreg Bank (lower), Trewern) for residents (ground floor

locations/gardens) and road users; and

- Viewpoint Location 22 (A458 at Buttington Bridge) for Offa's Dyke Path National Trail users, workers at nearby employment areas and road users.

9.4.86. In all of the above, views of crane movements relating to the removal of built form are of note. Views will be available of Site activities relating to ground restoration in certain cases. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting.

9.4.87. At the same distance range are the following Viewpoint Locations:

- Viewpoint Location 7 (From Brunant, immediately south of Pob Ceiniog) for residents (ground floor locations/gardens) and footpath users;
- Viewpoint Location 19 (near Pool Quay) for residents (ground floor locations/gardens) and footpath users; and
- Viewpoint Location 20 (A483 at Pool Quay) for Offa's Dyke Path National Trail users and road users.

9.4.88. In all cases, there will be views of crane movements relating to the removal of built form. This will consist of intermittent views of crane movements seen against a landform backdrop. Views of Site activities relating to ground restoration will either be limited or absent.

9.4.89. Relevant at a medium range is Viewpoint Location 14 (from Bacheldre Lane) for residents (ground floor locations/gardens) and road users. There will be views of crane movements against a landform backdrop. Whilst there will be a lack of available views of Site activities relating to ground restoration.

The Development Overall

9.4.90. The LVIA has assessed all phases of the Development in terms of landscape and visual effects.

9.4.91. The Development has been allocated for employment development through the Powys Local Development Plan 2011 – 2026 therefore is considered suitable for uses such as that proposed by the Development.

9.4.92. The Development will result in notable changes both regarding the Development Site and in a wider context.

9.4.93. Mitigation measures form an integral part of the Development.

9.4.94. With regards to the architectural design, further to the location of built form within the quarry void, the graduated roofline of the main ERF building and the choice of cladding colours are intended to be sympathetic to the landscape setting. Also of importance is the size of the Site compared to that allocated for proposed built form which allows extensive landscape proposals to be incorporated into the design including screen bunds, SuDS measures, areas of open mosaic habitat and species-rich neutral grassland and proposed native woodland planting. The latter will remain in perpetuity and offers long term

enhancement and mitigation for future employment uses at the Site. Such measures will have the potential to provide neutral or beneficial effects in time both in respect of the Site and its wider environs

The Development in Combination with Other Developments

- 9.4.95. Cumulative landscape and visual effects have been considered in the LVIA. Guidance has been taken from the GLVIA Third Edition regarding cumulative landscape effects (paragraph 7.26) and visual effects (paragraph 7.38).
- 9.4.96. The LVIA has taken into account large scale commercial development such as warehouses along the main road network and on the edge of settlements:
- Offa's Dyke Business Park adjacent to the B4388 on the edge of Buttington (c.2.2km south-west);
 - Buttington Cross Enterprise Park and the Welshpool Livestock Sales building adjacent to the A458 and A483 roundabout on the northern edge of Welshpool (c.2.6km south-west); and
 - Hanfaes Lane Industrial Estate (c.4.1km south-west) and Severn Farm Industrial Estate (c.5km south-west) on the eastern edge of Welshpool.
- 9.4.97. A detailed assessment is provided in the LVIA (see Technical Appendix 9-1: Sections 5 and 6) and a summary provided in Section 9.5 of this Chapter.

Interactive Effects

- 9.4.98. Interactions with other Key Environmental Aspect ("KEA's") are summarised in Table 9-5 below.

Table 9-5: Interactive Effects on KEA

KEA Interaction	Interactive Effects
Landscape and Visual and Air Quality	<p>The average calculated visible plume is shown on photomontage views provided in the LVIA. (see Technical Appendix 9-1: Appendix 1 and Figures L9 to L109)</p> <p>A worst case scenario is considered from Viewpoint Location 11 From Garreg Bank (upper) Trewern and the illustrated maximum calculated plume length is shown on a photomontage view (see Technical Appendix 9-1: Appendix 14).</p>
Landscape and Visual and Ecology	<p>Retained and proposed planting are illustrated by the Landscape Masterplan. The existing woodland on the southern Development Site boundary will be retained. Screen bunds (both existing and proposed) will be grass seeded and planted with native broadleaved woodland. Proposals also comprise SuDS measures along with areas of open mosaic habitat and species rich neutral grassland. In the operation phase, no allowance is made for the additional screening benefits offered by new native woodland planting shown on the Landscape Masterplan. During decommissioning, consideration is given to its long term landscape and visual benefits. (see Technical Appendix 9-1)</p>

Table9-5: Interactive Effects on KEA (cont)

KEA Interaction	Interactive Effects
Landscape and Visual and Historic Environment	Cultural heritage assets (e.g. Scheduled Monuments) are considered as part of landscape and visual effects in the LVIA. (see Technical Appendix 9-1: Sections 5 and 6)
Landscape and Visual and Human Health	Visual receptors including residents, footpath users and road users are considered in the LVIA. (see Technical Appendix 9-1: Section 6)
Landscape and Visual and Transportation	The formation of the access road is assessed in the LVIA. (see Technical Appendix 9-1: Section 6)
Landscape and Visual and Water Environment	The Landscape Masterplan encompasses SuDS measures which includes a surface water attenuation pond together with amphibian wetland and peripheral habitat creation. These aspects are taken into account in the LVIA. (see Technical Appendix 9-1: Section 5)

9.5. Environmental Effects Analysis

- 9.5.1. The LVIA considers and describes the main landscape and visual effects which are likely to arise from the Development and generally assumes that an impact could lead to a beneficial, adverse or neutral effect. The definition of impact terminology has been developed to ensure that, wherever possible, an objective assessment has been made and that the terminology used is appropriate to the Development and the current baseline situation. Section 9.4 of this Chapter previously discussed the effects and an assessment of significance is provided in this Section.
- 9.5.2. In adherence with the GLVIA Third Edition, a distinction is made between the “impact” (the action being taken) and “effect” (the change resulting from that action) that the Development might have upon the landscape and visual amenity. The same source advises that the assessment of a particular development should take full account of the landscape (character) impacts as well as the potential visual impacts. Although they are separate, it is difficult to isolate each category and so both are considered as part of the assessment process.
- 9.5.3. The assessment of landscape and visual impacts involves three steps:
- Determining the sensitivity of the landscape or viewer group (i.e. the receptor) to the type of change envisaged;
 - Predicting the magnitude of change that would take place in the landscape or view; and
 - Evaluating the significance of that change, taking into account the sensitivity of the affected receptor and the magnitude of change.
- 9.5.4. In the LVIA, the assessment considers landscape and visual effects resulting from the Development during the construction, operational and decommissioning phases. Consideration has been given to night time effects due to the proposed lighting scheme, winter views and plume visibility. Magnitude of impact is dealt with on a landscape or visual basis and the overall consideration of the effects takes into account the period of time that the effect occurs. A narrative approach is used to describe and assess the likely changes in the LVIA. (see Technical Appendix 9-1: Sections 5 and 6).

LVIA Methodology

- 9.5.5. The LVIA Methodology is based on guidance and methodology listed in Section 9.2 of this Chapter. The same criteria is applied for all phases. The significance criteria is provided in Tables 9-6 to 9-9 together with the overall assessment of significance based on the requirements of methodology in Chapter 2 of the ES.
- 9.5.6. The methodology is presented in full in Appendix 1 and summarised in Section 2 of the LVIA (see Technical Appendix 9-1).

Landscape Character Effects Assessment Criteria

- 9.5.7. The assessment of landscape character effects describes the key characteristics of the landscape and the likely nature and scale of changes to landscape elements and characteristics; and the consequential effect on the landscape character. It considers effects relating to the Development during all phases.
- 9.5.8. Sensitivity of the landscape helps to determine how development of a particular site may lead to a high or low change in the overall characteristics. Sensitivity may be High, Medium or Low, with two further categories for exceptional situations of Very High or Very Low and is summarised in Table 9-6.

Table 9-6: Landscape Sensitivity

Sensitivity	Description
Very High	Where key characteristics, elements and associated uses are very vulnerable to change and cannot absorb development without significant alteration to the character itself. Thresholds for significant change are very low. This would apply to landscapes of designated value such as National Parks and where the principal management objective is to conserve existing character.
High	Where the key characteristics, elements and associated uses are vulnerable to change and/or enhancement and where development can only be absorbed in limited situations. The thresholds for significant change are low.
Medium	Where the key characteristics, elements and associated uses of the landscape are susceptible to change but have the ability to absorb development in some situations. Thresholds for significant change are intermediate.
Low	Where key characteristics, elements and associated uses are resilient to change and can absorb development in many situations without significant character change.
Very Low	Where the key characteristics, elements and associated uses are robust and are able to accommodate development without significant character change. This would apply to landscapes undergoing regeneration or with management objectives focused on landscape change.

- 9.5.9. The magnitude of impact relates to the scale of the changes in terms of the effects upon the landscape character of the Development Site (direct effects) and also the surrounding environs (indirect effects). Indirect effects on landscape character are assessed where the Development is visible in the principal study area (see Technical Appendix 9-1: Figures L5 and L6). The magnitude of impact applied ranges from Very Large to Negligible or No Impact and is defined in Table 9-7.

Table 9-7: Landscape Magnitude of Impact

Sensitivity	Description
Very Large	Where the development will cause large-scale changes many to important landscape characteristics.
Large	Where the development will cause some large-scale changes to several landscape characteristics.
Medium to Large	Where the development will cause some notable changes to several landscape characteristics.
Medium	Where the development will cause changes to several landscape characteristics.
Small	Where the development will cause small-scale changes to a limited number of landscape characteristics.
Very Small	Where the development will cause very small-scale changes to a limited number of landscape characteristics.
Negligible	Where the development will cause little or no appreciable change.
No Impact	No perceptible change to the landscape character due to the development.

9.5.10. Consequently, a combination of the sensitivity of the landscape and the magnitude of the impact determines the significance of effect.

9.5.11. In line with the GLVIA Third Edition, final conclusions regarding the significance of effect specifically concern the development in question. Generally, a more significant effect would apply to the permanent loss of mature elements. A less significant effect involves the loss of uniform and homogenous elements and features or where there is a more degraded character and less associated value. This is judged against the current baseline situation set out in Section 9.3 of this Chapter.

Visual Effects Assessment Criteria

9.5.12. The assessment of significance of visual effects is approached in a similar manner to that previously described for landscape character.

9.5.13. Viewpoint Locations are chosen to show the context of specific places where the Development might be most visible and in some cases, representative receptor sensitivity. It is recognised that sensitivity may vary on a personal basis as will receptor activity. Nevertheless, the Viewpoint Locations are used to provide an objective assessment of the primary receptor sensitivity.

9.5.14. The sensitivity of the viewer is defined according to the type of receptor such as residents, road users and footpath users and ranges from Very High to Very Low and is summarised in Table 9-8. Static views can typically include locations from residential areas and sequential views refer to those along roads and footpaths. The type of view is specified for each Viewpoint Location in the LVIA.

Table 9-8: Visual Sensitivity

Sensitivity	Description
Very High	Visitors to nationally advertised attractions (e.g. a National Park) where visual amenity is very important to its enjoyment.
High	From residential properties (ground floor locations/gardens), an established viewing point, or recognised public location for which the sensitivity of visual amenity is noted as being of a higher rating. Footpath users on National Trails.
Medium	Footpath users on long distance footpaths, on the general footpath network (footpaths, bridleways and byways) and walkers (general recreation). Residential locations including from upper floor windows and general views from residential properties not associated with a High sensitivity.
Low	Road users on the general network including "A" class roads, minor roads and lanes. It also includes a place of work or recreation facilities (e.g. golf course) as the action takes place with less reference to external influences.
Very Low	People travelling along direct fast transport routes where context and view changes rapidly (e.g. motorway, railway).

- 9.5.15. The magnitude of the visibility is rated from Very Large to Negligible or No Impact and is defined in Table 9-9.

Table 9-9: Visual Magnitude of Impact

Sensitivity	Description
Very Large	Where new or additional elements are introduced and the development is wholly dominant and intrusive within the context of the available view.
Large	Where the development would introduce new or additional elements which would form a significant and immediately apparent aspect of the scene and would affect the overall impression of the view.
Medium to Large	Where the development would introduce new or additional elements which will be noticeable in the scene and would affect the overall impression of the view.
Medium	Where the development would introduce new or additional elements and forms a recognisable change to the amenity but is not intrusive within the overall scene.
Small	Where the development would introduce new or additional elements but would constitute only a minor component of the wider view which the casual observer could miss or where awareness does not affect the overall quality of the scene.
Very Small	Where only a very small part of the development is discernible or in cases where the effects are scarcely appreciated, for example, due to the angle of view or distance involved.
Negligible	Where the development will not materially alter the existing view.
No Impact	No perceptible change to the existing view due to the development.

- 9.5.16. The significance of effect is then determined by comparing the magnitude and sensitivity in a consistent manner.

Nature of Effect

- 9.5.17. It is not the assumption of the LVIA that all change is adverse. Rather, it seeks to give objective consideration from the outset that the nature of effect can be beneficial or adverse and in some cases neutral.

- 9.5.18. The GLVIA Third Edition notes that *“It is also possible for effects to be neutral in their consequences for the landscape. An informed professional judgement should be made about this and the criteria used in reaching the judgement should be clearly stated. They might include, but should not be restricted to:*
- The degree to which the proposal fits with existing character; and
 - The contribution to the landscape that the development may make in its own right, usually by virtue of good design, even if it is in contrast to existing character”. (paragraph 5.37)
- 9.5.19. The LVIA gives objective consideration to both landscape and visual effects with regard to the context, visual composition and the way in which the view is experienced.
- 9.5.20. The LVIA gives objective consideration to both landscape and visual effects with regard to the context, visual composition and the way in which the view is experienced.
- 9.5.21. An adverse nature of effect may occur where there is an increase of visibility in terms of the Site or changes to character of a negative or intrusive kind. This may ensue regarding views of earthworks and due to screen bund formation in the construction period. Crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF could result in adverse effects (e.g. at the skyline).
- 9.5.22. During the operation period, adverse effects may occur with respect to potential views of building façades or rooflines of the ERF building and/or stack. This may arise when built form is seen against the skyline rather than a backdrop of hills or rising ground. When the stack is seen in isolation (i.e. without context to the overall Development), this may result in an adverse rather than neutral effect. As stated, during the operation phase, no allowance is being made for the additional screening benefits offered by the proposed native woodland planting illustrated by the Landscape Masterplan. Consideration is given to the screen bunds only.
- 9.5.23. The Assessment recognises that if part of the Development can be assimilated into the landscape or is not visually overbearing and intrusive, it will not necessarily result in an adverse effect. In addition, a change is not necessarily an adverse effect so long as the land use and appearance are broadly in line with similar uses.
- 9.5.24. Neutral effects may arise when the proposals are unlikely to be identified immediately in terms of adversely affecting the characteristics or where they do not constitute an intrusive element in the overall visual amenity; this may apply when views are partially screened or at distance.
- 9.5.25. During decommissioning, cranes will remove taller elements such as the ERF building and stack which may lead to adverse visual effects. However, these will be temporary and/or generally of a short duration. The screen bunds will provide some screening of the demolition/removal of buildings and vehicle movements during ground restoration. Overall, adverse visual effects in this phase will primarily relate to visible crane movements and site activity where in view.
- 9.5.26. Proposed native woodland planting shown on the Landscape Masterplan will remain in perpetuity and will offer long term enhancement and mitigation for future employment

uses at the Site. A neutral or beneficial nature of effect may occur as it matures. It is more likely to be beneficial at a close range with a neutral effect occurring at mid and long range.

- 9.5.27. Winter and summer views have been considered separately in the LVIA for selected Viewpoint Locations in the immediate vicinity and at a close range. (see Technical Appendix 9-1: Section 6 and Appendix 12).

Landscape and Visual Capacity

- 9.5.28. Landscape capacity relates to the landscape character sensitivity and value and is also informed by the effects upon visual amenity. It provides an understanding of whether the predicted effects upon the character would be in keeping or not with the current landscape setting. It constitutes an all-encompassing consideration of whether a landscape might be capable of development whilst the essential qualities of the wider landscape character remain unchanged.
- 9.5.29. In this instance, a three-point scale has been adopted after considering the above:
- Low capacity: a landscape or visual amenity which cannot accommodate change;
 - Medium capacity: a landscape or visual amenity which could accommodate change in certain circumstances: and
 - High capacity: a landscape or visual amenity which can accommodate change.

Significance of Effect Criteria

- 9.5.30. The significance of a landscape or visual effect is a function of the sensitivity of the affected landscape or visual receptors, the magnitude of change that they will experience and the nature of the effect. The degree of significance of landscape and visual effects are unique to a particular proposal. Tables 9-10 and 9-11 demonstrate the principles applied to assess the significance. Although where exceptions occur, professional judgement and assumptions are applied. For example, where significance falls between two categories.
- 9.5.31. In instances where a Major or a Moderate to Major significance of effect occurs, then the effect is likely to be considered significant (i.e. an impact that is likely to be a key material factor in the decision-making process). Where a Moderate (adverse) significance of effect has occurred then this has been reviewed whether it would constitute a significant effect.

Table 9-10: Significance of Effect Landscape and Visual

Significance of Effect	Landscape	Visual
Negligible	Virtually no effect on existing landscape character and quality.	The development results in a virtually imperceptible change in the view and has no affect upon the existing visual amenity.
Minor	Some effects on existing landscape for which the development can be readily accommodated without affecting the character.	Where the development may have a slight affect upon the view but where the change is not prominent.
Moderate	Larger scale changes affecting the landscape to a noticeable degree without a significant resultant change in the character.	Where the development will be clearly visible and results in some changes to the view, but the main elements of the baseline visual context remain.
Major	Landscape character and quality is affected to a large degree, such that the development is a substantive element, creating a character associated with the development.	The development results in changes that largely affect the view, or where the baseline visual context alters, such that the development is one of the principal visual elements unmistakably or easily seen.
Substantial	Landscape character and quality is affected to a substantial degree, such that the development is the principal and substantive element dominating the essence of the landscape character and affecting the balance of the landscape.	Substantive alterations to the amenity of the view, where the development becomes the dominant feature and commands or controls that particular view.

Table 9-11: Predicted Significance of Landscape/Visual Effects

Sensitivity ► ▼ Magnitude	Very Low	Low	Medium	High	Very High
No Impact	None	None	None	None	None
Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
Very Small	Negligible	Negligible	Minor	Minor	Minor - Moderate
Small	Negligible	Minor	Minor-Moderate	Moderate	Moderate
Medium	Minor	Minor-Moderate	Moderate	Moderate to Major	Major
Medium to Large	Minor-Moderate	Moderate	Moderate	Moderate to Major	Major
Large	Minor-Moderate	Moderate	Moderate to Major	Major	Major to substantial
Very Large	Moderate	Moderate	Major	Major to substantial	Substantial

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- 9.5.32. This Chapter deviates from the other KEA Chapters in that as there are a large number of Viewpoint Locations to consider, each was firstly assessed using the significance of effect criteria as outlined in Tables 9-10 and 9-11. Viewpoint Locations were then grouped together in accordance with their significance and the full Environmental Effects Analysis was undertaken for Viewpoint Locations identified as being significant.
- 9.5.33. Table 9-12 provides a summary of the visual effects. The full assessment is contained within Technical Appendix 9-1.

Table 9-12: Summary of Visual Effects

VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT		SIGNIFICANCE OF EFFECT (NATURE)
Close Range Views to the South and East					
1	From Helder Lane immediately west of Whitehouse Farm	Residents (both ground and potential first floor locations/gardens) (High)	During Construction	Large	Major (adverse)
			During Operation	Medium to Large (potentially Large)	Major (adverse) (worst case scenario)
			During Decommissioning	Medium	Moderate to Major (adverse)
			During Construction	Large	Moderate (adverse)
			During Operation	Medium to Large (potentially Large)	Moderate (adverse) (worst case scenario)
			During Decommissioning	Medium	Minor-Moderate (adverse)
			During Construction	Large	Moderate (adverse)
2	From Helder Lane	Road users (Low)	During Construction	Large	Moderate (adverse)
			During Operation	Medium to Large	Moderate (adverse)
			During Decommissioning	Medium	Minor-Moderate (adverse)
			During Construction	Medium to Large	Moderate (adverse)
3	From public footpath immediately south of Nelly Andrews' Green	Footpath users (Medium)	During Operation	Medium	Moderate (adverse)
			During Decommissioning	Medium	Moderate (adverse)
			During Construction	Medium to Large	Moderate to Major (adverse)
			During Operation	Medium	Moderate to Major (adverse)
4	From Helder Lane at Upper Helder	Residents (ground floor locations/gardens) (High)	During Construction	Medium to Large	Moderate to Major (adverse)
			During Operation	Medium	Moderate to Major (adverse)
			During Decommissioning	Medium	Moderate to Major (adverse)
			During Construction	Medium to Large	Moderate (adverse)
		Road users (Low)	During Operation	Medium	Minor-Moderate (adverse)
			During Decommissioning	Medium	Minor-Moderate (adverse)
			During Construction	Medium to Large	Moderate (adverse)
			During Operation	Medium	Minor-Moderate (adverse)

Table 9-12: Summary of Visual Effects (cont)

VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT	SIGNIFICANCE OF EFFECT (NATURE)
Close Range Views to the South and East				
5	From public footpath south of Butington leading towards the Longmountain	Footpath users (Medium)	During Construction Medium During Operation Medium During Decommissioning Medium	Moderate (neutral) Moderate (neutral) Moderate (neutral)
6	From public footpath on Helder Hill	Footpath users (Medium)	During Construction Medium During Operation Medium During Decommissioning Medium	Moderate to Major (adverse) Moderate (neutral) Moderate (neutral)
7	From Brunant, immediately south of Pob Ceiniog	Residents (ground floor locations/gardens) (High) Footpath users (Medium)	During Construction Medium During Operation Small During Decommissioning Small During Construction Medium During Operation Small During Decommissioning Small	Moderate (neutral) Moderate (neutral) Moderate (adverse) Minor-Moderate (neutral) Minor-Moderate (adverse)
Close and Medium Range Views to the North, North-East and East				
8	From A458 at Cefn	Residents (upper floor windows) (Medium) Road users (Low)	During Construction Small (generally) Medium (worst case scenario) During Operation Medium During Decommissioning Small During Construction Small (generally) Medium (worst case scenario) During Operation Medium During Decommissioning Small	Moderate (adverse) (worst case scenario) Moderate (adverse) Minor-Moderate (adverse) Minor-Moderate (adverse) Minor (adverse)
9	From A458 at Trevern	Residents (upper floor windows) (Medium)	During Construction Small (generally) Medium (worst case scenario) During Operation Medium During Decommissioning Small	Moderate (adverse) (worst case scenario) Moderate (adverse) Minor-Moderate (adverse)

Table 9-12: Summary of Visual Effects (cont)

VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT		SIGNIFICANCE OF EFFECT (NATURE)
Close and Medium Range Views to the North, North-East and East					
9	From A458 at Trevern	Road Users (Low)	During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse) (worst case scenario)
			During Operation	Medium	Minor-Moderate (adverse)
			During Decommissioning	Small	Minor (adverse)
			During Construction	Medium to Large	Moderate to Major (adverse)
			During Operation	Medium to Large	Moderate to Major (adverse)
10	From Garreg Bank (lower), Trevern	Residents (ground floor locations/gardens) (High)	During Decommissioning	Medium	Moderate to Major (adverse)
			During Construction	Medium to Large	Moderate (adverse)
			During Operation	Medium to Large	Moderate (adverse)
			During Decommissioning	Medium	Minor-Moderate (adverse)
			During Construction	Small (generally) Medium (worst case scenario)	Moderate (adverse) (worst case scenario)
11	From Garreg Bank (upper), Trevern	Residents (upper floor windows) (Medium)	During Operation	Medium	Moderate (adverse)
			During Decommissioning	Small	Minor-Moderate (adverse)
			During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse) (worst case scenario)
			During Operation	Medium	Minor-Moderate (adverse)
			During Decommissioning	Small	Minor (adverse)

Table 9-12: Summary of Visual Effects (cont)

VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT	SIGNIFICANCE OF EFFECT (NATURE)
Close and Medium Range Views to the North, North-East and East				
12	From Crigglion Lane, Trewern	Residents (upper floor windows) (Medium)	During Construction	Very Small (generally Small (worst case scenario))
			During Operation	Medium
			During Decommissioning	Very Small
			During Construction	Very Small (generally Small (worst case scenario))
			During Operation	Medium
13	From lane at Golfa Bank and adjacent to The Old Shop Cottage	Residents (upper floor windows) (Medium)	During Decommissioning	Very Small
			During Construction	Small (generally Medium (worst case scenario))
			During Operation	Medium
			During Decommissioning	Small
			During Construction	Small (generally Medium (worst case scenario))
14	From Bacheldre Lane adjacent to Oak Grange	Road users (Low)	During Operation	Medium
			During Decommissioning	Small
			During Construction	Small
			During Decommissioning	Small
			During Construction	Small
15	From A458 west of Wollaston	Road users (Low)	During Operation	Small
			During Decommissioning	Small
			During Construction	Small
			During Decommissioning	Small
			During Construction	Small

Table 9-12: Summary of Visual Effects (cont)

VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT		SIGNIFICANCE OF EFFECT (NATURE)
Close and Medium Range Views to the North, North-East and East					
16	From Moel y Gofa	Footpath users (Medium)	During Construction	Medium	Moderate (adverse)
			During Operation	Medium	Moderate (neutral)
			During Decommissioning	Small	Minor-Moderate (adverse)
			During Construction	Small	Minor-Moderate (neutral)
17	From Middletown Hill	Walkers (general recreation) (Medium)	During Operation	Small	Minor-Moderate (neutral)
			During Decommissioning	Very Small	Minor (neutral)
			During Construction	Small (generally) Medium (worst case scenario)	Moderate to Major (adverse) (worst case scenario)
			During Operation	Small	Moderate (neutral)
18	From Rodney's Pillar	Established viewing point at Rodney's Pillar (High)	During Construction	Small (generally) Medium (worst case scenario)	Moderate to Major (adverse) (worst case scenario)
			During Operation	Small	Moderate (neutral)
			During Decommissioning	Small	Moderate (adverse)
			Close Range Views to the North-West and West		
19	From public footpath near Coppice East Farm (near Pool Quay)	Residents (ground floor locations/gardens) (High)	During Construction	Small (generally) Medium (worst case scenario)	Moderate to Major (adverse) (worst case scenario)
			During Operation	Small	Moderate (neutral)
			During Decommissioning	Small	Moderate (adverse)
			During Construction	Small (generally) Medium (worst case scenario)	Moderate (adverse) (worst case scenario)
			During Operation	Small	Minor-Moderate (neutral)
			During Decommissioning	Small	Minor-Moderate (adverse)

Table 9-12: Summary of Visual Effects (cont)

VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT		SIGNIFICANCE OF EFFECT (NATURE)
Close Range Views to the North-West and West					
20	From A483 at Pool Quay	Offa's Dyke Path National Trail users (High)	During Construction	Small (generally) Medium (worst case scenario)	Moderate to Major (adverse) (worst case scenario)
			During Operation	Small	Moderate (neutral)
			During Decommissioning	Small	Moderate (adverse)
			During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse) (worst case scenario)
		Road users (Low)	During Operation	Small	Minor (neutral)
			During Decommissioning	Small	Minor (adverse)
			During Construction	Negligible	Negligible (adverse)
21	From A483 near Pool Quay at Strata Marcella Abbey	Offa's Dyke Path National Trail users (High)	During Operation	Very Small	Minor (neutral)
			During Decommissioning	Negligible	Negligible (adverse)
			During Construction	Negligible	Negligible (adverse)
			During Operation	Very Small	Negligible (neutral)
			During Decommissioning	Negligible	Negligible (adverse)
Close and Medium Range Views to the South-West					
22	From A458 at Buttington Bridge	Offa's Dyke Path National Trail users (High)	During Construction	Medium to Large	Moderate to Major (adverse)
			During Operation	Medium	Moderate to Major (adverse)
			During Decommissioning	Medium	Moderate to Major (adverse)
			During Construction	Medium to Large	Moderate (adverse)
			During Operation	Medium	Minor-Moderate (adverse)

Table 9-12: Summary of Visual Effects (cont)

VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT		SIGNIFICANCE OF EFFECT (NATURE)
Close and Medium Range Views to the South-West					
23	From B4381 at Welshpool	Residents (upper floor windows) (Medium)	During Construction	Small (generally) Medium (worst case scenario)	Moderate (neutral) (worst case scenario)
			During Operation	Small	Minor-Moderate (neutral)
			During Decommissioning	Small	Minor-Moderate (neutral)
			During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (neutral) (worst case scenario)
			During Operation	Small	Minor (neutral)
Long Range Views to the South-West					
24	From Powis Castle, Welshpool	Visitors to Powis Castle (Very High)	During Construction	Small (generally) Medium (worst case scenario)	Major (neutral) (worst case scenario)
			During Operation	Small	Moderate (neutral)
			During Decommissioning	Small	Moderate (neutral)
			During Construction	Small (generally) Medium (worst case scenario)	Moderate (neutral) (worst case scenario)
			During Operation	Very Small	Minor (neutral)
25	From Y Golfa (Welshpool Golf Club)	Footpath users (Medium)	During Construction	Small (generally) Medium (worst case scenario)	Moderate (neutral) (worst case scenario)
			During Operation	Very Small	Minor (neutral)
			During Decommissioning	Very Small	Minor (neutral)
			During Construction	No Impact	None
			During Operation	Negligible	Negligible (neutral)
26	From A483 at Rhiw Bridge (Berriew)	Road users (Low)	During Decommissioning	No Impact	None
			During Construction	Negligible	Negligible (neutral)
			During Operation	Negligible	Negligible (neutral)
			During Decommissioning	No Impact	None
			During Construction	Negligible	Negligible (adverse)
27	From public footpath between Y Brywydd and Castle Caereinion	Footpath users (Medium)	During Operation	Very Small	Minor (neutral)
			During Decommissioning	Negligible	Negligible (adverse)
			During Construction	Very Small	Minor (neutral)
			During Operation	Negligible	Negligible (adverse)
			During Decommissioning	Negligible	Negligible (adverse)

Table 9-12: Summary of Visual Effects (cont)

VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT	SIGNIFICANCE OF EFFECT (NATURE)
Medium and Long Range Views to the North and North-West				
28	From A483 at Ardleen	Residents (upper floor windows) (Medium)	During Construction	Negligible (generally) Very Small (worst case scenario)
			During Operation	Very Small
			During Decommissioning	Negligible (generally) Very Small (worst case scenario)
			During Construction	Negligible (generally) Very Small (worst case scenario)
			During Operation	Very Small
		Road users (Low)	During Decommissioning	Negligible (generally) Very Small (worst case scenario)
			During Construction	Negligible (generally) and Very Small (worst case scenario)
			During Operation	Negligible (generally) and Very Small (worst case scenario)
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)
			During Construction	Negligible (generally) and Very Small (worst case scenario)
29	From Castlehill Lane, Burgedin	Road users (Low)	During Construction	Negligible (generally) and Very Small (worst case scenario)
			During Operation	Negligible (generally) and Very Small (worst case scenario)
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)
			During Construction	Negligible (generally) and Very Small (worst case scenario)
			During Operation	Negligible (generally) and Very Small (worst case scenario)
30	From the Severn Way, east of Trederwen	Severn Way long distance footpath users (Medium)	During Construction	Negligible (generally) and Very Small (worst case scenario)
			During Operation	Negligible (generally) and Very Small (worst case scenario)
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)
			During Construction	Negligible (generally) and Very Small (worst case scenario)
			During Operation	Negligible (generally) and Very Small (worst case scenario)

Table 9-12: Summary of Visual Effects (cont)

VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT	SIGNIFICANCE OF EFFECT (NATURE)
Medium and Long Range Views to the North and North-West				
31	From Llanymynech Hill	Footpath users (Medium)	During Construction	Negligible (generally) and Very Small (worst case scenario)
			During Operation	Negligible
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)
		Recreation users at Llanymynech Golf Club (Low)	During Construction	Negligible (generally) and Very Small (worst case scenario)
			During Operation	Negligible
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)
32	From Quarry Lane and Offa's Dyke Path, Nantmawr	Offa's Dyke Path National Trail users and residents (ground floor locations/gardens) (High)	During Construction	Negligible (generally) and Very Small (worst case scenario)
			During Operation	Negligible
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)
			During Construction	Negligible (generally) and Very Small (worst case scenario)
			During Operation	Negligible
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)
33	From Green Hall Hill, Brynelltyn, Llanfyllin	Walkers (general recreation) (Medium)	During Construction	Negligible (generally) and Very Small (worst case scenario)
			During Operation	Negligible
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)
				Negligible (neutral) (worst case scenario)

Table 9-12: Summary of Visual Effects (cont)

VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT	SIGNIFICANCE OF EFFECT (NATURE)
Views from the Access Road				
34	N/A	Road users (Low)	During Construction	Large Moderate (neutral)
35	N/A	Road users (Low)	During Construction	Large Moderate (neutral)

- 9.5.34. Based on the significance of effect for each Viewpoint Location, a detailed environmental effects analysis is provided in Tables 9-14 to 9-17 along with landscape character, designations and cumulative effects. The evaluation criteria are presented in Table 9-13 below.
- 9.5.35. Mitigation measures as outlined in Section 9.4 of this Chapter form a key part of the Development and are taken into account as part of the LVIA.
- 9.5.36. The environmental effects for the Development consider the following factors:
- Magnitude of Impact (Mg);
 - Geographic Extent of Impact (GE);
 - Frequency of Impact (F);
 - Duration of Impact (D);
 - Reversibility of Impact (R); and
 - Ecological, Cultural and Socio-economic Context of Impact (ESC).

Table 9-13: Environmental Effects Assessment Evaluation Criteria

Criteria	Description
Magnitude of Impact (Mg)	<ul style="list-style-type: none"> • As set out in Table 9-11.
Geographic Extent of Impact (GE)	<ul style="list-style-type: none"> • Within the Development Site boundary. (Site) • Within the immediate vicinity (500m) of the stack. (Imm) • Within close range (from 500m to 3km) of the stack. (Clos) • Within medium range (from 3km to 6km) of the stack. (Med) • Within long range (beyond 6km) of the stack. (Long)
Frequency of Impact (F)	<ul style="list-style-type: none"> • Single event (Sin) • Potentially annual activity (Ann) • Monthly occurrence (Mon) • Continuous activity (Con) • Variable depending on weather conditions (Var) • Night time (Night)
Duration of Impact (D)	<ul style="list-style-type: none"> • 6-12 months (6-12) • 12-36 months (12-36) • Over 36 months (>36)
Reversibility of Impact (R)	<ul style="list-style-type: none"> • There is insufficient research/experience to indicate whether the environmental effect is reversible (Unknown) • Previous research/experience indicates the environmental effect is reversible (High) • Previous research/experience indicates the environmental effect may be reversible (Medium) • Previous research/ experience indicates that there is a small likelihood that the environmental effect is reversible (Low) • Previous research/ experience indicates that the environmental effect is irreversible (Nil)
Ecological, Cultural and Socio-economic Context of Impact (ESC)	<ul style="list-style-type: none"> • Relatively pristine area not adversely affected by human activity (Low) • Evidence of human activity (Med) • High level of human activity (High)

Table 9-14: Environmental Effects Analysis - Construction

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Change in landuse (e.g. ground modelling and earthworks, screen bunds)	Direct change of Landscape Character	Medium to Large	Site	Con	12- 36	High	High
	<p>Conclusion: The Development Site currently displays few of the distinctive attributes and qualities identified through LANDMAP for the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area. Following Site analysis, B&A has assigned a Low-Medium sensitivity.</p> <p>Ground modelling and earthworks will be necessary to facilitate the Development. As part of mitigation measures, the partially completed screen bund along Sale Lane will be finished. Along with proposed screen bunds, this will be grass seeded and planted with native woodland trees. There will be a Medium to Large magnitude of impact and a Moderate (neutral) significance of effect. The effects are considered to be not significant and will be of a neutral nature.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						
Change in landuse (e.g. ground modelling and earthworks, screen bunds)	Indirect change of Landscape Character	Medium	Med	Con	12- 36	High	Med
	<p>Conclusion: Indirect effects on landscape character within the principal study area will be limited overall due to the current context of the Development Site, the nature of the Development and incorporated mitigation measures. Some effects in relation to the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area (outwith the Development Site) and the adjacent MNTGMVS650 River Severn Flood Plain and may extend to a medium range and a Moderate (neutral) significance of effect. For other Aspect Areas (LANDMAP) and Landscape Types identified in The Shropshire Landscape Typology (2006) will then reduce to a more typical Negligible level at a medium and long range with potentially, No Impact in terms of the latter. The effects are therefore considered not significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						

Table 9-14: Environmental Effects Analysis –Construction (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
	Indirect Impact on landscape designations	Small	Med	Con	12-36	High	Med
	<p>Conclusion: The Development Site is not located in a statutory or non-statutory landscape designation. Some limited indirect effects (adverse nature) may occur from a small number of cultural heritage assets within close range and medium range but will not be significant and are summarised below.</p>						
Change in landuse (e.g. ground modelling and earthworks, screen bunds)	<ul style="list-style-type: none"> • Maesfron (Grade II) Registered Park and Garden of Special Historic Interest in Wales (CADW): Small magnitude of impact and a Minor-Moderate (adverse) significance of effect. • Trewern Hall (Grade II* Listed Building): A Very Small magnitude of impact and a Minor (adverse) significance of effect. • Powis Castle and Garden: Negligible magnitude of impact and resultant significance of effect (neutral). <p>Overall, indirect effects on landscape designations within the principal study area will be restricted due to a combination of distance, localised topography and vegetation. The effects are therefore considered not significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						
	Visual effect from Viewpoint Locations 1 and 2	Large	Imm	Con	12-36	High	High
	<p>Conclusion: A Large magnitude of impact and a Major (adverse) significance of effect for residents (both ground and potential first floor locations/gardens) (High sensitivity) at Viewpoint Location 1 From Heldre Lane immediately west of Whitehouse Farm. This is considered to be significant for residents but not for road users (Low sensitivity). Effects relate to the crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF. Also of note is the formation and establishment of the screenbunds (i.e. grass seeded and planted with native broadleaved trees).</p> <p>A Large magnitude of impact and a Moderate (adverse) significance of effect was recorded at Viewpoint Location 2 From Heldre Lane for road users (Low sensitivity). Effects as described above apply. The effects are therefore considered to be significant</p>						
Ground modelling and earthworks, screen bunds and crane movements etc. associated with construction	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						

Table 9-14 : Environmental Effects Analysis – Construction (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Ground modelling and earthworks, screen bunds and crane movements etc. associated with construction	Visual effect from Viewpoint Locations 3, 4, 10 and 22	Medium to Large	Clo	Con	12-36	High	High
	Conclusion: A Medium to Large magnitude of impact and Moderate to Major (adverse) significance of effect applies at the following Viewpoint Locations at close range and are considered to be significant.						
	<ul style="list-style-type: none">• Viewpoint Location 4 From Heldre Lane at Upper Heldre for residents (ground floor locations/gardens) (High sensitivity);• Viewpoint Location 10 From Garreg Bank (lower) for residents (ground floor locations/gardens) (High sensitivity); and• Viewpoint Location 22 From A458 at Buttington Bridge for Offa’s Dyke Path National Trail users (High sensitivity).						
	The following with a Medium to Large magnitude of impact will result in a Moderate (adverse) significance of effect are also considered to be significant:						
	<ul style="list-style-type: none">• Viewpoint Location 3 From public footpath immediately south of Nelly Andrews' Green for footpath users (Medium sensitivity);• Viewpoint Location 4 From Heldre Lane at Upper Heldre and Viewpoint Location 10 From Garreg Bank (lower) for road users (Low sensitivity); and• Viewpoint Location 22 From A458 at Buttington Bridge for workers at nearby employment areas and road users (Low sensitivity).						
	In the above cases, effects relate to crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF. In the case of Viewpoint Locations 10 and 22, this will be against the skyline. Other aspects of note include the screen bund along Sale Lane which will be completed, grass seeded and planted with native broadleaved trees (for Viewpoint Locations 3, 4 and 10). Vehicle movements and the temporary storage of materials in Laydown Area 4 will be relevant at Viewpoint Location 3. Whilst ground modelling in the central environs of the Development Site including the formation of the screen bund immediately south of the ERF building and restored northern quarry face will be in view at Viewpoint Location 4. The effects are therefore considered to be significant .						
	Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.						

Table 9-14 : Environmental Effects Analysis – Construction (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Ground modelling and earthworks, screen bunds and crane movements etc. associated with construction	Visual effect from Viewpoint Location 24	Medium	Long	Con	12-36	High	High
	<p>Conclusion: A Medium magnitude of impact and Major (neutral) significance of effect (worst case scenario) applies at Viewpoint Location 24 From Powis Castle, Welshpool, for visitors to Powis Castle.</p> <p>Effects relate to potential views of crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF together with ground modelling within the Development Site. Magnitude of impact may increase from a Small to Medium level due to crane movements etc.</p> <p>The effects are therefore considered to be significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						
	Visual effect from Viewpoint Locations 8, 9 , 11 and 13	Medium	Close	Con	12-36	High	High
Ground modelling and earthworks, screen bunds and crane movements etc. associated with construction	<p>Conclusion: A Medium magnitude of impact and Moderate (adverse) significance of effect applies at the following Viewpoint Locations at close range. This will be significant for the identified receptors. They will not be significant for other receptors (i.e. road users):</p> <ul style="list-style-type: none"> • Viewpoint Location 8 From A458 at Cefn for residents (upper floor windows); • Viewpoint Location 9 From A458 at Trewern for residents (upper floor windows); • Viewpoint Location 11 From Garreg Bank (upper), Trewern for residents (upper floor windows); • Viewpoint Location 13 From lane at Golfa Bank and adjacent to The Old Shop Cottage for residents (upper floor windows); <p>In all of the above cases, Views will be possible of crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF. The screen bund along Sale Lane will be completed, grass seeded and planted with native broadleaved trees. In terms of Viewpoint Location 9, ground modelling within the central environs of the Site relating to the restored northern quarry face will be in view. View of crane movements will increase magnitude of impact from a Small to Medium level. The effects are therefore considered to be significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						

Table 9-14 : Environmental Effects Analysis – Construction (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Ground modelling and earthworks, screen bunds and crane movements etc. associated with construction	Visual effect from Viewpoint Locations 7, 19 and 20	Medium	Clo	Con	12-36	High	High
	<p>Conclusion: A Medium magnitude of impact and Moderate to Major (adverse) significance of effect applies at the following Viewpoint Locations at close range. This will be significant for the identified receptors. They will not be significant for receptors such as road users and footpath users:</p> <ul style="list-style-type: none"> • Viewpoint Location 7 From Brunant, immediately south of Pob Ceiniog, for residents (ground floor locations/gardens); • Viewpoint Location 19 From public footpath near Coppice East Farm (near Pool Quay), for residents (ground floor locations/gardens) (worst case scenario); and • Viewpoint Location 20 From A483 at Pool Quay, for Offa's Dyke Path National Trail users (worst case scenario). <p>In all of the above cases, views will be possible of crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF. At Viewpoint Locations 19 and 20 this increases magnitude of impact from a Small to Medium level. At Viewpoint Location 7, potential views are also available of ground modelling in the central environs of the Development Site and earthworks relating to the screen bunds which will be grass seeded and planted with native broadleaved trees.</p> <p>The effects are therefore considered to be significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						
	Visual effect from Viewpoint Location 18	Medium	Med	Con	12-36	High	High
Ground modelling and earthworks, screen bunds and crane movements etc. associated with construction	<p>Conclusion: A Medium magnitude of impact and Moderate to Major (adverse) significance of effect applies at Viewpoint Location 18 From Rodney's Pillar, from the established viewing point at Rodney's Pillar (worst case scenario) which is at medium range.</p> <p>Effects relate to partial views of crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF which may increase magnitude of impact from a Small to Medium level. Also of note are potential views of ground modelling (in the central environs of the Development Site) and earthworks associated with screen bunds which will be grass seeded and planted with native broadleaved trees. The temporary storage of materials in Laydown Area 4 may also be seen. The effects are therefore considered to be significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						

Table 9-14 : Environmental Effects Analysis – Landscape and Visual: Construction (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Ground modelling and earthworks, screen bunds and crane movements etc. associated with construction	Visual effect from Viewpoint Location 14	Small	Med	Con	12-36	High	High
	<p>Conclusion: At a medium range, there will be a Small magnitude of impact at Viewpoint Location 14 (from Bacheldre Lane) with a Moderate (adverse) significance of effect for residents (ground floor locations/gardens) and a Minor (adverse) significance of effect for road users. Effects are considered to be significant for residents but not road users.</p> <p>Crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF will be seen. The screen bund along Sale Lane will be completed, grass seeded and planted with native broadleaved trees.</p> <p>The effects are therefore considered to be significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						
	Visual effects	Large	Imm	Con	12-36	High	High
Construction of Access Road (Visual Effects)	<p>Conclusion: The activity of visual receptors is entirely related to road users (Low sensitivity) and the experience in visual terms is typical of a busy trunk road. Alterations to the road will be of a Large magnitude of impact and a Moderate significance of effect. Given the existing dominant road use and visual amenity experience, the nature of effect is predicted to remain as a neutral rather than an adverse level. During construction, the disruption is likely to be similar with no change to the predicted impact level.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						

Table 9-15: Environmental Effects Analysis – Operation

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Change in landuse (e.g. presence of built form due to ERF) and screen bunds	Direct effect on Landscape Character	Medium	Site	Con	>36	High	High
	Conclusion: The LVIA considers the mitigation measures summarised in Section 9.4 of this Chapter. The Development Site is located in the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area according to LANDMAP. The Development will introduce new elements namely, the proposed ERF building and stack. Mitigation measures include the location of the aforementioned built form in the quarry void in the central environs of the Development Site (i.e. at a low level) and screen bunds. In addition, the choice of cladding colours is relevant. There will be a Medium magnitude of impact and a Moderate (neutral) significance of effect. The effects are considered to be not significant and will be of a neutral nature.						
	Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.						
Change in landuse (e.g. presence of built form due to ERF) and screen bunds	Indirect effect on Landscape Character	Medium	Clo	Con	>36	High	Med
	Conclusion: The LVIA considers the mitigation measures summarised in Section 9.4 of this Chapter. Indirect effects on landscape character will be restricted overall due to the current context of the Development Site, the nature of the Development and incorporated mitigation measures. Some limited effects will occur mainly at a close range of a neutral nature, for example, in relation to the MNTGMVS370 Crewgreen to Forden Hill and Scarp and MNTGMVS650 River Severn Flood Plain Visual and Sensory Aspect Areas. At a close range, there will be a Medium magnitude of impact and a Moderate (neutral) significance of effect. Effects will decline at a medium range in both cases. For the remaining Aspect Areas LANDMAP) and Landscape Types identified in The Shropshire Landscape Typology (2006) in the principal study area, there is a more typical Negligible level at a medium and long range with potentially No Impact in terms of the latter. The effects are therefore considered not significant .						
	Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.						

Table 9-15: Environmental Effects Analysis – Operation (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
	Indirect effect on landscape designations	Small	Med	Con	>36	High	Med
	<p>Conclusion: The LVIA considers the mitigation measures summarised in Section 9.4 of this Chapter. The Development Site is not located in a statutory or non-statutory landscape designation. Some limited effects (adverse nature) may occur from a small number of cultural heritage assets within close range and medium range but will not be significant and are summarised below.</p> <ul style="list-style-type: none"> • Maesfron (Grade II) Registered Park and Garden of Special Historic Interest in Wales (CADW): Small magnitude of impact and a Minor-Moderate (adverse) significance of effect. • Trewern Hall (Grade II* Listed Building): A Very Small magnitude of impact and a Minor (adverse) significance of effect. • Powis Castle and Garden: Negligible magnitude of impact and resultant significance of effect (neutral). <p>Overall, indirect effects on landscape designations within the principal study area will be restricted due to a combination of distance, localised topography and vegetation. The effects are therefore considered not significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						
	Visual effect from Viewpoint Location 1	Large	Imm	Con	>36	High	High
	<p>Conclusion: The LVIA considers the mitigation measures summarised in Section 9.4 of this Chapter. A Large magnitude of impact (worst case scenario) with a Major (adverse) significance of effect applies at Viewpoint Location 1 From Heldre Lane immediately west of Whitehouse Farm which is in the immediate vicinity of the Development Site (within 500m). This is considered to be significant for residents (both ground and potential first floor locations/gardens) (High sensitivity). It does not apply to road users (Low sensitivity). Effects relate to a clear view of the upper elevation and roofline of the ERF building and the stack against the skyline. The former will reduce distant views of the lower slopes of Moel y Golfa. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The effects are therefore considered to be significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						

Table 9-15: Environmental Effects Analysis – Operation (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Change in landuse (e.g. presence of built form due to ERF) and screen bunds	Visual effect from Viewpoint Location 2	Medium to Large	Imm	Con	>36	High	High
	<p>Conclusion: The LVIA considers the mitigation measures summarised in Section 9.4 of this Chapter. A Medium to Large magnitude of impact and Moderate (adverse) significance of effect applies to Viewpoint Location 2 From Heldre Lane, for road users (Low sensitivity). Effects relate to a clear view of the upper elevation and graduated roofline of the ERF building against a backdrop of higher ground. Whilst the upper part of the stack is seen against the skyline. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The screen bunds will reduce more direct views of the lower elevations of the ERF building and stack along with vehicle movements. The effects are therefore considered to be significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						
	Visual effect from Viewpoint Location 10	Medium to Large	Clo	Con	>36	High	High
Change in landuse (e.g. presence of built form due to ERF) and screen bunds	<p>Conclusion: The LVIA considers the mitigation measures summarised in Section 9.4 of this Chapter. A Medium to Large magnitude of impact applies at Viewpoint Location 10 From Garreg Bank (lower), Trewern. This is considered to be significant with a Moderate to Major (adverse) significance of effect for residents (ground floor locations/gardens) (High sensitivity) and a Moderate (adverse) significance of effect for road users.</p>						
	<p>Effects relate to a clear view of the upper elevation of the ERF building and stack against the skyline seen at an acute angle. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. Direct views of the lower parts of the ERF building and stack will be limited by intervening vegetation. The effects are therefore considered to be significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						

Table 9-15: Environmental Effects Analysis – Operation (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
	Visual effect from Viewpoint Locations 4 and 22	Medium	Clo	Con	>36	High	High
	<p>Conclusion: The LVIA considers the mitigation measures summarised in Section 9.4 of this Chapter. A Medium magnitude of impact will lead to a Moderate to Major (adverse) significance of effect at close range for the following Viewpoint Locations. This is considered to be significant for the identified receptors. They will not be significant for other receptor groups (i.e. road users and workers at nearby employment areas and road users).</p> <p>Viewpoint Location 4 From Heldre Lane at Upper Heldre, Moderate to Major (adverse) significance of effect for residents (ground floor locations/gardens) (High sensitivity). Effects relate to a clear view of the upper elevation and graduated roofline of the ERF building and the stack against a backdrop of higher ground.</p> <p>Viewpoint Location 22 From A458 at Buttington Bridge, Moderate to Major (adverse) significance of effect for Offa's Dyke Path National Trail users (High sensitivity). Effects relate to a clear view of the stack and the upper elevations of the ERF building seen at an acute angle and against the skyline.</p> <p>In both cases, with regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. At Viewpoint Location 4, the siting of the ERF building and stack in the quarry void in the central environs of the Development Site (i.e. at a low level) is of note. Whilst screen bunds will reduce more direct views of the lower elevations of built form. The effects are therefore considered to be significant.</p> <p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						
Change in landuse (e.g. presence of built form due to ERF) and screen bunds							

Table 9-15: Environmental Effects Analysis – Operation (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
	Visual effect from Viewpoint Locations 3, 8, 9, 11, 12 and 13	Medium	Clo	Con	>36	High	High
Change in landuse (e.g. presence of built form due to ERF) and screen bunds	Conclusion: The LVIA considers the mitigation measures summarised in Section 9.4 of this Chapter. A Medium magnitude of impact will lead to a Moderate (adverse) significance of effect at close range for the following Viewpoint Locations. This is considered to be significant for the identified receptors. They will not be significant for other receptors such as road users.						
	<ul style="list-style-type: none">• Viewpoint Location 3 From public footpath immediately south of Nelly Andrews' Green for footpath users (Medium sensitivity);• Viewpoint Location 8 From A458 at Cefn for residents (upper floor windows);• Viewpoint Location 9 From A458 at Trewern for residents (upper floor windows);• Viewpoint Location 11 From Garreg Bank (upper), Trewern for residents (upper floor windows);• Viewpoint Location 12 From Criggion Lane for residents (upper floor windows); and• Viewpoint Location 13 From lane at Golfa Bank and adjacent to The Old Shop Cottage, residents (upper floor windows).						
	In all cases, there will be clear views of the upper elevation and roofline of the ERF building but this varies between a backdrop of higher ground (Viewpoint Location 3), skyline (Viewpoint Location 8, 9, 12 and 13) and a combination of both (Viewpoint Location 11).						
	When considering mitigation measures, the siting of the ERF building and stack (i.e. at a low level) along with screen bunds are of consequence. In terms of architectural design, the ERF building has a graduated appearance. In all cases, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. Whilst views of the lower elevations of proposed built form are also restricted by intervening vegetation outwith the Development Site. The effects are therefore considered to be significant .						
	Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.						

Table 9-15: Environmental Effects Analysis – Operation (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
	Increase in night time levels	Medium	Clo	Night	>36	High	High
Operation (Proposed Lighting Scheme)	Conclusion: The proposed lighting scheme is represented by the report and Drawings prepared by Illume Design (Dated 1 August 2019) which are provided in the ES. The following selected Viewpoint Locations were assessed for night time views. A detailed assessment is provided in the LVIA.						
	<ul style="list-style-type: none">• Viewpoint Location 4 From Heldre Lane at Upper Heldre: Small or Medium (maximum) magnitude of impact with a likely Moderate (neutral) significant of effect for residents (ground floor locations/gardens) and a Minor (neutral) significant of effect for road users;						
	<ul style="list-style-type: none">• Viewpoint Location 6 From footpath on Heldre Hill: A Very Small to Small (maximum) magnitude of impact may occur. The consequence is not likely to be more than a Minor (neutral) significant of effect. Please note, that it was assessed as a broad view of the Severn Valley rather than specifically for footpath users;						
	<ul style="list-style-type: none">• Viewpoint Location 7 From Brunant, immediately south of Pob Ceiniog: Small magnitude of impact with a Moderate (neutral) significant of effect for residents (ground floor locations/gardens). This is likely to apply to residents rather than footpath users on the track;						
	<ul style="list-style-type: none">• Viewpoint Location 11 From Garreg Bank (upper), Trewern: Very Small magnitude of impact and a Minor (neutral) significant of effect for residents (upper floor windows) (Medium) and a Negligible (neutral) significant of effect for road users;						
	<ul style="list-style-type: none">• Viewpoint Location 21 From A483 near Pool Quay at Strata Marcella Abbey: Very Small or Small (maximum) magnitude of impact, which is assessed as being a Minor (neutral) significant of effect for road users. The assessment applies primarily to road users rather than Offa’s Dyke Path National Trail users in this instance; and						
		<ul style="list-style-type: none">• Viewpoint Location 22 From A458 at Buttington Bridge: Very Small magnitude of impact and a Negligible (neutral) significant of effect for workers at nearby employment areas and road users.					
	In conclusion, whilst some localised Moderate (neutral) significant of effect might be experienced, the overall effects are more likely to have a Minor (neutral) or Negligible (neutral) significant of effect for identified receptors. In terms of significance of effect, given the base line of a night sky that has existing light sources and is not wholly dark, in that sense, the proposed lighting scheme is not predicted to have a significant (adverse) effect. The effects are therefore considered not significant .						
	Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.						

Table 9-16: Environmental Effects Analysis – Decommissioning

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Removal of built form and ground restoration	Direct change of Landscape Character	Medium to Large	Site	Con	12-36	High	High
	<p>Conclusion: The Development Site currently displays few of the distinctive attributes and qualities identified through LANDMAP for the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area. Following Site analysis, B&A has assigned a Low-Medium sensitivity.</p> <p>The proposals have the potential to provide neutral or potentially, beneficial effects. As new native woodland planting matures, it will provide long term enhancement and mitigation for future employment uses at the Site. Whilst the Landscape Masterplan also incorporates areas of open mosaic habitat and species-rich neutral grassland. SuDS measures include a surface water attenuation pond together with amphibian wetland and peripheral habitat creation.</p> <p>There will be a Medium to Large magnitude of impact and a Moderate (neutral) significance of effect. The effects are considered to be not significant and will be of a neutral nature. However, there is the potential for long term beneficial effects as set out above. This could lead to a Small magnitude of impact and a Minor (beneficial) significance of effect.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						
Removal of built form and ground restoration	Indirect change of Landscape Character	Medium	Med	Con	12-36	High	Med
	<p>Conclusion: Indirect effects on landscape character within the principal study area will be limited overall due to the current context of the Development Site, the nature of the Development and incorporated mitigation measures. Some effects in relation to the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area (outwith the Development Site) and the adjacent MNTGMVS650 River Severn Flood Plain and may extend to a medium range and a Moderate (neutral) significance of effect.</p> <p>In terms of the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area, there is the potential for some long term beneficial effects to occur due to proposed native woodland planting as it matures, notably within close range. This has the potential to result in a Minor (beneficial) significance of effect within this distance range.</p> <p>For other Aspect Areas (LANDMAP) and Landscape Types identified in The Shropshire Landscape Typology (2006) will then reduce to a more typical Negligible level at a medium and long range with potentially, No Impact in terms of the latter. The effects are therefore considered not significant.</p> <p>The effects are therefore considered not significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						

Table 9-16: Environmental Effects Analysis – Decommissioning (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Removal of built form and ground restoration	Indirect Impact on landscape designations	Small	Med	Con	12-36	High	Med
	<p>Conclusion: The Development Site is not located in a statutory or non-statutory landscape designation. Some limited indirect effects (adverse nature) may occur from a small number of cultural heritage assets within close range and medium range but will not be significant and are summarised below.</p> <ul style="list-style-type: none"> • Maesfron (Grade II) Registered Park and Garden of Special Historic Interest in Wales (CADW): Small magnitude of impact and a Minor-Moderate (adverse) significance of effect. • Trewern Hall (Grade II* Listed Building): A Very Small magnitude of impact and a Minor (adverse) significance of effect. • Powis Castle and Garden: Negligible magnitude of impact and resultant significance of effect (neutral). <p>Overall, indirect effects on landscape designations within the principal study area will be restricted due to a combination of distance, localised topography and vegetation. The effects are therefore considered not significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						
	Visual effect from Viewpoint Location 1	Med	Imm	Con	12-36	High	High
Removal of built form and ground restoration	<p>Conclusion: A Medium magnitude of impact and a Moderate to Major (adverse) significance of effect for residents (both ground and potential first floor locations/gardens) (High sensitivity) at Viewpoint Location 1 From Heldre Lane immediately west of Whitehouse Farm. This is considered to be significant for residents but not for road users (Low sensitivity) at this Viewpoint Location.</p> <p>Effects relate to views of crane movements etc. seen at the skyline. Whilst there will be a lack of available views of Site activities relating to ground restoration. However, native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting.</p> <p>The effects are therefore considered to be significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						

Table 9-16: Environmental Effects Analysis –Decommissioning (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Removal of built form and ground restoration	Visual effect from Viewpoint Locations 4, 10 and 22	Medium	Clo	Con	12-36	High	High
	Conclusion: The LVIA considers the mitigation measures summarised in Section 9.4 of this Chapter. A Medium magnitude of impact was determined for a number of Viewpoint Locations at close range.						
	<ul style="list-style-type: none">• Viewpoint Location 4 (From Heldre Lane at Upper Heldre). Receptors include residents (ground floor locations/gardens) (High sensitivity) and road users (Low sensitivity). There will be a Moderate to Major (adverse) significance of effect for residents (ground floor locations/gardens) and a Minor-Moderate (adverse) significance of effect for road users (Low sensitivity). Effects are considered to be significant for residents but not road users.• Viewpoint Location 10 (Garreg Bank (lower), Trewern). A Moderate to Major (adverse) significance of effect was determined for residents (ground floor locations/gardens) (High sensitivity) and a Minor-Moderate (adverse) significance of effect for road users (Low sensitivity). Effects are considered to be significant for residents but not road users.• Viewpoint Location 22 (A458 at Buttington Bridge). A Moderate to Major (adverse) significance of effect for Trail users and a Minor-Moderate (adverse) significance of effect for workers at nearby employment areas and road users. Effects are considered to be significant for Trail users only.						
	There will be views of crane movements relating to the removal of built form. Views will be available of Site activities relating to ground restoration in some cases. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting (Viewpoint Location 4 and 10).						
	The effects are therefore considered to be significant .						
Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.							

Table 9-16: Environmental Effects Analysis –Decommissioning (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Removal of built form and ground restoration	Visual effect from Viewpoint Location 3	Medium	Clo	Con	12-36	High	High
	<p>Conclusion: The LVIA considers the mitigation measures summarised in Section 9.4 of this Chapter. A Medium magnitude of impact was determined for Viewpoint Location 3 at close range.</p> <p>Viewpoint Location 3 (From public footpath immediately south of Nelly Andrews' Green) for footpath users (Medium sensitivity). There will be a Moderate (adverse) significance of effect.</p> <p>Views of crane movements relating to the removal of built form and Site activities relating to ground restoration from this elevated location. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting</p> <p>The effects are therefore considered to be significant.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						
	Visual effect from Viewpoint Locations 7, 19 and 20	Small	Clo	Con	12-36	High	High
	<p>Conclusion: At a close range, there will be a Small magnitude of impact at the following:</p> <p>Viewpoint Location 7 (From Brunant, immediately south of Pob Ceiniog) with a Moderate (adverse) significance of effect for residents (ground floor locations/gardens) and a Minor-Moderate (adverse) significance of effect for footpath users.</p> <p>Viewpoint Location 19 (near Pool Quay) with a Moderate (adverse) significance of effect for residents (ground floor locations/gardens) (High sensitivity) and a Minor (adverse) significance of effect for road users (Low sensitivity).</p> <p>Viewpoint Location 20 (A483 at Pool Quay) for Offa's Dyke Path National Trail users (High sensitivity) with a Moderate (adverse) significance of effect and road users (Low sensitivity) with a Minor (adverse) significance of effect.</p> <p>In all cases, there will be views of crane movements relating to the removal of built form. This will consist of intermittent views of crane movements seen against a landform backdrop. Views of Site activities relating to ground restoration will either be limited or absent.</p> <p>Effects are considered to be significant for residents and trail users but not footpath users nor road users.</p>						
	<p>Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.</p>						

Table 9-16: Environmental Effects Analysis – Decommissioning (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Removal of built form and ground restoration	Visual effect from Viewpoint Location 14	Small	Med	Con	12-36	High	High
	Conclusion: At a medium range, there will be a Small magnitude of impact at Viewpoint Location 14 (from Bacheldre Lane) with a Moderate (adverse) significance of effect for residents (ground floor locations/gardens) and a Minor (adverse) significance of effect for road users. Effects are considered to be significant for residents but not road users.						
	There will be views of crane movements against a landform backdrop. Whilst there will be a lack of available views of Site activities relating to ground restoration.						
	The effects are therefore considered to be significant .						
	Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.						

Table 9-17: Environmental Effects Analysis –Cumulative

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Cumulative (Landscape Character)	Increase in landscape effects	Neg	Med	Con	>36	High	High
	Conclusion: Cumulative landscape effects have been assessed in terms of large scale industrial buildings located on the main road network and on the edge of settlements, all of which are within medium range of the Development Site. No likely significant cumulative effects have been identified resulting from the Development.						
	The effects are therefore considered not significant as there is no cumulative impact .						
	Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.						
Cumulative (Visual)	Increase in visual effects	Neg	Med	Con	>36	High	High
	Conclusion: Cumulative visual effects have been assessed in terms of large scale industrial buildings located on the main road network and on the edge of settlements, all of which are within medium range of the Development Site. No likely significant cumulative effects have been identified resulting from the Development. The effects are therefore considered not significant as there is no cumulative impact .						
	Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.						

Table9-17: Environmental Effects Analysis –Cumulative (cont)

Activity	Potential Effect	Evaluation Criteria					
		Mg	GE	F	D	R	ESC
Cumulative (lighting)	Increase in visual effects	Neg	Clo	Night	>36	High	High
	Conclusion: No adverse cumulative lighting effects have been identified in relation to the proposed lighting scheme during operation of the Development. The effects are therefore considered not significant as there is no cumulative impact .						
	Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.						
Cumulative (Development Site Access)	Increase in visual effects	Neg	Imm	Con	Imm	High	High
	Conclusion: No adverse cumulative effects have been identified in relation to the proposed site access during construction. The effects are therefore considered not significant as there is no cumulative impact .						
	Mitigation: No additional mitigation measures have been identified following the undertaking of the LVIA.						

9.6. Residual Environmental Effects

- 9.6.1. In this Chapter, residual effects in relation to landscape and visual matters are described in detail in Section 9.4. For visual effects, due to the number of Viewpoint Locations, a full list of results has been provided for each phase (see Table 9-12).
- 9.6.2. Table 9-18 below summarises the residual adverse environmental effects. As noted previously, mitigation measures have been taken into account as part of the assessment.
- 9.6.3. The nature (i.e. neutral, adverse or beneficial), type and duration of the effects are assessed using the following criteria. Where significance falls between two categories, professional judgement and assumptions are applied:
- Major (significant) residual environmental effect – Landscape character and quality is affected to a large degree, such that the development is a substantive element, creating a character associated with the development/The development results in changes that largely affect the view, or where the baseline visual context alters, such that the development is one of the principal visual elements unmistakably or easily seen;
 - Moderate (significant in some cases) residual environmental effect – Larger scale changes affecting the landscape to a noticeable degree without a significant resultant change in the character/Where the development will be clearly visible and results in some changes to the view, but the main elements of the baseline visual context remain;
 - Minor (not significant) residual environmental effect – Some effects on existing landscape for which the development can be readily accommodated without affecting the character/Where the development may have a slight affect upon the view but

where the change is not prominent;

- Negligible (not significant) residual environmental effect – Virtually no effect on existing landscape character and quality/The development results in a virtually imperceptible change in the view and has no affect upon the existing visual amenity.

Table 9-18: Summary of Residual Adverse Environmental Effects

Development Phase	Residual Adverse Environmental Effect		Significance	Likely Effect on the Environment
Construction	Landscape character	Direct (MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area)	N/A	Effects will be of a neutral nature. There will be no residual adverse environmental effects.
		Indirect (MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area)	N/A	Effects will be of a neutral nature. There will be no residual adverse environmental effects.
		Remaining Visual and Sensory Aspect Areas and Landscape Types	N/A	Effects will be of a neutral nature. There will be no residual adverse environmental effects.
	Landscape designations	Indirect	Minor-Moderate (maximum) Not Significant and Negligible or lower (generally) Not Significant	Expected residual adverse environmental effects will be Small (maximum) and will not result in any significant changes.
	Visual	Viewpoint Locations 1 and 2 (immediate vicinity)	Major Significant (for residents at both Viewpoints) and Moderate Significant (for road users at Viewpoint Location 2)	Expected residual adverse environmental effects will be Large and will result in significant changes.

Table9-18: Summary of Residual Adverse Environmental Effects (cont)

Development Phase	Residual Adverse Environmental Effect	Significance	Likely Effect on the Environment
Construction	Visual	Viewpoint Locations 3, 4, 10 and 22 (close range)	Moderate to Major Significant Expected residual adverse environmental effects will be Medium to Large and will result in significant changes.
		Viewpoint Location 24 (long range)	Major Significant Expected residual environmental effects will be Medium neutral rather than Medium adverse. However, they will result in significant changes.
		Viewpoint Locations 7, 19 and 20 (close range)	Moderate to Major Significant Expected residual adverse environmental effects will be Medium and will result in significant changes.
		Viewpoint Locations 8, 9, 11 and 13 (medium range)	Moderate Significant Expected residual adverse environmental effects will be Medium and will result in significant changes.
		Viewpoint Location 18 (medium range)	Moderate to Major Significant Expected residual adverse environmental effects will be Medium and will result in significant changes.
		Viewpoint Location 14 (medium range)	Moderate Significant Expected residual adverse environmental effects will be Small and will result in significant changes.
		Construction of Access Road	N/A Effects will be of a neutral nature. There will be no residual adverse environmental effects.

Table 9-18: Summary of Residual Adverse Environmental Effects (cont)

Development Phase	Residual Adverse Environmental Effect		Significance	Likely Effect on the Environment
Operation	Landscape	Direct (MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area)	N/A	Effects will be of a neutral nature. There will be no residual adverse environmental effects.
		Indirect (MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area)	N/A	Effects will be of a neutral nature. There will be no residual adverse environmental effects.
		Remaining Visual and Sensory Aspect Areas and Landscape Types	N/A	Effects will be of a neutral nature. There will be no residual adverse environmental effects.
	Landscape designations	Indirect	Minor-Moderate (maximum) Not Significant and Negligible or lower (generally) Not Significant	Expected residual adverse environmental effects will be Small (maximum) and will not result in any significant changes.
	Visual	Viewpoint Location 1 (immediate vicinity)	Major Significant	Expected residual adverse environmental effects will be Large and will result in significant changes.
		Viewpoint Location 2 (immediate vicinity)	Moderate Significant	Expected residual adverse environmental effects will be Medium to Large and will result in significant changes.
		Viewpoint Location 10 (close range)	Moderate to Major Significant (residents) and Moderate (road users)	Expected residual adverse environmental effects will be Medium to Large and will result in significant changes.

Table 9-18: Summary of Residual Adverse Environmental Effects (cont)

Development Phase	Residual Adverse Environmental Effect		Significance	Likely Effect on the Environment
Operation	Visual	Viewpoint Locations 4 and 22 (close range)	Moderate to Major Significant	Expected residual adverse environmental effects will be Medium and will result in significant changes.
		Viewpoint Locations 3, 8, 9, 11, 12 and 13 (close range)	Moderate Significant	Expected residual adverse environmental effects will be Medium and will result in significant changes.
		Proposed lighting scheme	N/A	Effects will be of a neutral nature. There will be no residual adverse environmental effects.
Decommissioning	Landscape character	Direct (MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area)	N/A	Effects will be of a neutral nature. There will be no residual adverse environmental effects.
		Indirect (MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area)	N/A	Effects will be of a neutral nature. There will be no residual adverse environmental effects.
		Remaining Visual and Sensory Aspect Areas and Landscape Types	N/A	Effects will be of a neutral nature. There will be no residual adverse environmental effects.
	Landscape designations	Indirect	Minor-Moderate (maximum) Not Significant and Negligible or lower (generally) Not Significant	Expected residual adverse environmental effects will be Small (maximum) and will not result in any significant changes.

Table 9-18: Summary of Residual Adverse Environmental Effects (cont)

Development Phase	Residual Adverse Environmental Effect		Significance	Likely Effect on the Environment
Decommissioning	Visual	Viewpoint Location 1 (immediate vicinity)	Moderate to Major Significant	Expected residual adverse environmental effects will be Medium and will result in significant changes.
		Viewpoint Locations 4, 10 and 22 (close range)	Moderate to Major Significant	Expected residual adverse environmental effects will be Medium and will result in significant changes.
		Viewpoint Location 3 (close range)	Moderate Significant	Expected residual adverse environmental effects will be Medium and will result in significant changes.
		Viewpoint Locations 7, 19 and 20 (close range)	Moderate Significant	Expected residual adverse environmental effects will be Small and will result in significant changes.
		Viewpoint Location 14 (medium range)	Moderate Significant	Expected residual adverse environmental effects will be Small and will result in significant changes.

- 9.6.4. Landscape and visual capacity concern whether the change resulting from a development can be accommodated by a particular landscape or visual resource without undue adverse effects.
- 9.6.5. With regards to landscape capacity, the majority of the Development Site is an altered landscape due to quarrying activities and it demonstrates few of the distinctive attributes of the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area.
- 9.6.6. A Medium capacity for change has been assigned by B&A in this instance. The broad band of mature woodland on the southern Development Site boundary will be retained. During operation, it will introduce new elements namely, the ERF building and stack which will feature appropriate colour cladding for the landscape setting. The identified effects are not overbearing upon the current features of landscape value. They will also be of a neutral significance during all phases. There is sufficient capacity to enable the Development without significant or overriding adverse effects to both the character and value of the

adjoining landscape.

- 9.6.7. With regards to visual capacity, the majority of the Development Site including the existing quarry void has been allocated for employment uses in the Powys Local Development Plan 2011 – 2026.
- 9.6.8. A Medium capacity for change has been assigned by B&A in this instance for the visual amenity at all distance ranges.
- 9.6.9. In total, 35 Viewpoint Locations have been assessed in detail in the LVIA. During construction and decommissioning it is acknowledged that some significant visual effects will occur (often for a short duration related to crane movements) for specific receptors.
- 9.6.10. For construction, this mainly applies for specific receptor groups at a number of Viewpoint Locations within the immediate vicinity and at close range. There are a limited number at medium range and long range. A significant visual effect was recorded at Viewpoint 1 and 2 (immediate vicinity), Viewpoint Locations 3, 4, 7, 10, 19, 20 and 22 (close range), Viewpoint Location 8, 9, 11, 13, 14 and 18 (medium range) and Viewpoint Location 24 (long range).
- 9.6.11. In terms of decommissioning, a significant visual effect was noted at Viewpoint 1 (immediate vicinity), Viewpoint Locations 3, 4, 7, 10, 19, 20 and 22 (close range) and Viewpoint Location 14 (medium range). No significant effects occurred at a long range.
- 9.6.12. Mitigation measures form an integral part of the Development during operation. In summary, this includes the siting of the ERF building and stack, architectural design including cladding colour and the landscape proposals illustrated by the Landscape Masterplan namely, the screen bunds. It is accepted that significant visual effects will occur in relation to specific Viewpoint Locations and receptor groups within the immediate vicinity (Viewpoint Locations 1 and 2) and at close range (Viewpoint Locations 3, 8, 9, 4, 10, 11, 12, 13 and 22). No significant effects occurred at a medium or long range. There is sufficient capacity to enable the Development without overriding adverse effects on visual amenity.

9.7. Summary

- 9.7.1. This Chapter relates to landscape and visual matters and presents the findings of the LVIA in relation to the Development (Technical Appendix 9-1).
- 9.7.2. The LVIA has been carried out in line with current guidance and best practice specified for landscape professionals and advice set out in the adopted Landscape SPG (2019). Comments in the Scoping Direction relating to landscape and visual matters together with cultural heritage designations have been taken into account. Consideration has been given to comments received through the pre application process.
- 9.7.3. Further to the LVIA, B&A has given advice regarding the design of the Development over a number of years and has designed the Landscape Masterplan which may be found in Chapter 4 of the ES.

- 9.7.4. Relevant national and local planning policies have been addressed and the Development will comply with policies. Of particular note are landscape and visual matters relating to the design of built form and incorporated mitigation measures.
- 9.7.5. The baseline situation with regards to landscape setting, character and designations has been established through the LVIA. Direct and indirect effects have been explored in terms of landscape character. A neutral nature of effect was determined with regards to all phases of the Development. This also applies to indirect effects on the assessed landscape designations. No significant effects were identified.
- 9.7.6. With regards to visual receptors, a significant effect was recorded in a small number of cases. This mainly occurred in the construction phase as opposed to operation and decommissioning. With regards to the latter, overall magnitude of impact was also lower and effects generally of a neutral rather than adverse nature of effect. An important consideration during the operation phase is the location of the Development Site in a wider context as it occupies part of a transitional landscape with the Severn Valley to the west and the higher uplands of Breidden Hill and Long Mountain to the east. Consequently, it is often viewed against a backdrop of land rather than skyline.
- 9.7.7. The LVIA concluded that there would be sufficient landscape and visual capacity to enable the Development without overriding adverse effects on either landscape character or visual amenity.
- 9.7.8. The LVIA considered winter views from specific Viewpoint Locations. In all cases, it was found that the results would concur with that of summer views in the visual impact assessment. In addition, the cladding colour scheme with its muted tones and different green hues, complements the rural landscape setting. Of note in the operation phase, is that the LVIA considers a worst case scenario overall (i.e. screen and not the additional screening properties of new native woodland planting). Woodland will gradually offer an enhanced visual experience as it matures and this is recognised in the decommissioning phase for views, notably within close range.
- 9.7.9. The average calculated visible plume does not represent a significant visual detractor. It is acknowledged that when visible, it has the potential to heighten the visibility of the stack and therefore, the Development in a wider landscape context.
- 9.7.10. No adverse cumulative landscape or visual effects have been identified due to the Development.
- 9.7.11. The Development will result in notable changes both regarding the Site and in a wider context.
- 9.7.12. Mitigation measures form an integral part of the Development. With regards to the architectural design, further to the location of built form within the quarry void, the graduated roofline of the main ERF building and the choice of cladding colours are intended to be sympathetic to the landscape setting. Also of importance is the size of the Site compared to that allocated for proposed built form which allows extensive landscape proposals to be incorporated into the design including screen bunds, SuDS measures, areas of open mosaic habitat and species-rich neutral grassland and proposed native woodland planting. The latter will remain in perpetuity and offers long term enhancement and

mitigation for future employment uses at the Site. Such measures will have the potential to provide neutral or beneficial effects in time both in respect of the Site and its wider environs.

- 9.7.13. Of the adverse impacts or effects that have been identified in the Assessment, none are so overriding that it would have a wholly dominant or intrusive visual effect nor will it remove distinctive attributes of landscape character identified through LANDMAP.

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Technical Appendix 9-1 Landscape and Visual Impact Assessment



BROAD ENERGY (WALES) LTD.

**Proposed Energy Recovery Facility (ERF)
at:**

**Buttington Quarry,
Welshpool, Powys**

**Technical Appendix 9.1
Landscape and Visual Impact Assessment
(LVIA)**

February 2021

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 Appendix 6: LANDMAP Mid-Wales Area Statement (2018) (Extract)
 Appendix 7: LANDMAP Site Related Aspect Areas (Extract)
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1. INTRODUCTION

1.1. APPOINTMENT AND SCOPE OF WORK

- 1.1.1. Bright & Associates (B&A) has been appointed by ECL (the Agent) on behalf of Broad Energy (Wales) Limited (the Applicant), to undertake a Landscape and Visual Impact Assessment (LVIA) as part of an Environmental Impact Assessment (EIA). This relates to a planning application for the proposed Buttington Quarry Energy Recovery Facility, Welshpool, Powys (the Development).
- 1.1.2. The Planning Application boundary (the Site) is illustrated by Figure L1: Site Location and Landscape Character Classification (National Level) and subsequent Figures where appropriate.
- 1.1.3. The Development is summarised later in this Section and sets out the basis against which the Assessment has been carried out which is described in detail in Chapter 4 of the Environmental Statement (ES). The Energy Recovery Facility (ERF) will generate c.13MW of low carbon and renewable energy through the thermal treatment of up to 150,000 tonnes per annum of residual commercial and industrial waste.
- 1.1.4. Prior to undertaking the LVIA, B&A has provided ongoing advice over a number of years. This has involved Site location evaluation and broad landscape appraisal concerning building design, mitigation components and related processes as part of the overall ERF design.
- 1.1.5. The purpose and approach of the LVIA is to establish the main impacts of the Development upon landscape character, landscape designations and identified visual receptors against a defined baseline situation. It then determines the consequences and what the nature of these effects are likely to be. It assesses effects beyond or different to the baseline situation set out in Section 3 of this report. The LVIA considers landscape and visual effects resulting from the Development during the construction, operational and decommissioning phases. It assesses cumulative effects and evaluates winter views from specific Viewpoint Locations, plume visibility and night time effects due to the proposed lighting scheme.
- 1.1.6. This report explains the Methodology adopted, describes the baseline and provides the results of the Assessment. The Key Environmental Aspects (KEA) are summarised in Chapter 9 of the ES.
- 1.1.7. The LVIA is compliant with Schedule 4 of The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017.¹

¹ The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017, Schedule 4 Regulation 17(3) Information for Inclusion in Environmental Statements, came into force 16 May 2017



1.1.8. The contents of the LVIA have been guided by observations received during the planning process to date, as summarised below:

- ◆ **Scoping Direction:** As issued by The Planning Inspectorate in October 2018, referred to matters which should be considered in an LVIA (paragraph 7.4).² Comments are addressed in Appendix 15;
- ◆ **Design Commission for Wales (DCW):** In July 2020, preliminary discussions were held with the DCW. Comments regarding the design concept and building appearance were received. The presentation to the DCW included Plans showing the Zone of Theoretical Visibility (ZTV) demonstrating the area of potential visibility based on the upper elevations of the energy recovery hall and the stack together with the proposed Viewpoint Locations to be assessed. The Plans were submitted to the DCW in the same month; and
- ◆ **Pre-Application Consultation Process:** Held by the Applicant in late summer/early autumn 2020. Table 1 identifies where issues have been addressed in this report.

Table 1: Pre-Application Consultation Summary (Landscape and Visual Matters)

CONSULTEE	REQUIRED INFORMATION	WHERE ADDRESSED IN THE LVIA
Powys County Council	Is the plume reflective of the analysis undertaken and that of worst case?	<ul style="list-style-type: none"> Each photomontage illustration presented in this Assessment uses the average calculated visible plume as set out in the LVIA Methodology (see Appendix 1). The plume is taken into account as part of the assessment of the overall visibility of the stack. An example photomontage view of the maximum calculated visible plume length is provided from Viewpoint Location 11: From Garreg Bank (upper), Trewern (see Appendix 14). Section 6 (Assessment of Visual Effects) of the LVIA considers the plume visibility.
	Wireframes for a selected number of the photomontage viewpoints, with the wireframes superimposed over the photographs.	<ul style="list-style-type: none"> Discussions have been held with the Powys County Council landscape consultant. Details of the technical process involved for the preparation of the wireframes is provided in the LVIA Methodology (see Appendix 1). Appendix 13 presents the wireframes (Sheets 1 to 12).
	Longer cross sections to be prepared through the quarry base/the plant and the quarry surrounds out to the various local roads.	<ul style="list-style-type: none"> Discussions have been held with the Powys County Council landscape consultant. Appendix 3 includes Illustrative Cross Sections (1 to 6). Reference is made to Appendix 3 throughout the LVIA.

² DNS: EIA Scoping Direction 3201953: Buttington Quarry, Proposed Energy Recovery Facility, The Planning Inspectorate on behalf of the Welsh Government, 3 October 2018



1.2. THE DEVELOPMENT

- 1.2.1. Matters relating to the Development are summarised here for the purpose of the LVIA.
- 1.2.2. Input by consultants including B&A into the architectural design process has resulted in a final scheme which mitigates potential landscape effects through the adoption of a simplified building form and incorporates key mitigation measures. This includes the selected cladding colours which are sympathetic to the existing landscape setting and represent a positive design solution.
- 1.2.3. The Site is c.18ha in size with the proposed built form associated with ERF covering c.8ha, set on a north-east to south-west configuration and situated in the quarry void in the central environs of the Site.
- 1.2.4. The layout of the ERF and mitigation measures summarised below and described in detail in Section 4 are illustrated by Drawing BT1180-D2: Landscape Masterplan (Appendix 2). Hereafter, referred to as the Landscape Masterplan. The mitigation measures form an integral part of the Development, notwithstanding the location of the ERF within the quarry void as demonstrated by the Illustrative Cross Sections (Drawing No. BT1180-D11) (Appendix 3). Proposed planting will strengthen the existing framework of woodland both within and adjacent to the Site in the long term. Sustainable Drainage Systems (SuDS) include a surface water attenuation pond together with amphibian wetland and peripheral habitat creation. Indicative areas are shown on the Landscape Masterplan.
- 1.2.5. It should be noted that the Buttington Brickworks geological Site of Special Scientific Interest (SSSI) is located outwith the Planning Application boundary and will not be affected by the Development. The buildings and yard area located south of the Site which previously formed part of quarry working will be used for the logistics industry in future.
- 1.2.6. The key matters considered in the LVIA during the construction, operation and decommissioning phases are outlined below.

During Construction

- 1.2.7. It is estimated that the construction period for the ERF will last for c.3 years and the main impacts will result from:
 - ❖ **Ground modelling** including slope stabilisation within the Site to incorporate the ERF. To the immediate north of the ERF is an engineered retaining wall (using geotextile wrapping techniques), whilst a proposed remnant quarry face and bench is directly to the south;
 - ❖ **Earthworks** to complete the partially finished screen bund along Sale Lane, the proposed screen bunds along the northern and southern Site boundaries and also between Laydown Area 4 and the ERF which will be formed as part of mitigation measures. The screen bunds are intended to limit more direct views of the wider Site area namely the ERF, stack and also Laydown Area 4 which is the largest of the Laydown Areas. The screen bunds will be grass seeded and planted with native



broadleaved woodland as shown on the Landscape Masterplan;
and

- ◆ **Views of crane movements, building construction, scaffolding, temporary cladding, stored materials and the general appearance of the Site in transition** during the building of the ERF.

- 1.2.8. Consideration is given to the **construction of the Site access road** which has not been implemented as part of the existing quarry consent. This includes the formation of the Site access road by Heavy Goods Vehicles (HGVs). The Landscape Masterplan demonstrates the proposed internal access route to the ERF and an alternative option. Materials and plant used during the construction of the ERF will be temporarily stored in four Laydown Areas. Following which, it is proposed that Laydown Areas 3 and 4 will be used for future employment based uses.

During Operation

- 1.2.9. It is expected that the Development will have an operational life of at least 30 years and the main impacts will result from the following. It should be noted that this LVIA does not allow for the additional screening benefits offered by the proposed native woodland planting illustrated by the Landscape Masterplan:

- ◆ **Visibility of the ERF building** notably in relation to the energy recovery hall (46m high), waste reception hall (23m high) and stack (70m high). As part of mitigation measures, the choice of cladding colours is intended to be sympathetic to the landscape setting and uses prevailing natural shades of green and light brown hues;
- ◆ **Presence of the screen bunds** following grass seeding and planting as it matures. The bunds themselves offer effective screening features at close range and proposed native woodland planting will help to integrate the bunds at a close and medium range; and
- ◆ **Night time effects** resulting from the proposed lighting scheme.

During Decommissioning

- 1.2.10. The construction and decommissioning phases of the Development will involve similar effects for example, **crane movements** due to the erection and removal of buildings. Some ground restoration will be necessary. However, overall, decommissioning is likely to have less impact than the construction phase given that extensive earthworks and ground modelling will not be required. Such factors are considered along with the **proposed native woodland planting** shown on the Landscape Masterplan which will remain in perpetuity and offers long term enhancement and mitigation for future employment uses at the Site.

1.3. REPORT STRUCTURE

- 1.3.1. This report consists of the following Sections.
- 1.3.2. **Section 1 (Introduction)** provides background information with an outline of the Development for the purpose of the LVIA.



- 1.3.3. **Section 2 (Methodology)** summarises the approach adopted for the LVIA and follows current guidance, including the Guidelines for Landscape and Visual Impact Assessment (Third Edition) (2013). It is compliant with Schedule 4 of The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017. The LVIA methodology is provided in full in Appendix 1.
- 1.3.4. **Section 3 (The Baseline Situation)** presents a description of the current landscape setting including features that affect the visibility of the Site and its context within the surrounding landscape. It examines current Landscape Character Assessments at a national and local level, notably LANDMAP (Landscape Assessment and Decision Making Process) and other resources published by Natural Resources Wales (NRW). Landscape and cultural heritage designations which contribute to a sense of place and/or signify an amenity value for receptors have been reviewed within the principal study area. Consideration has been given to comments made in the Scoping Direction.
- 1.3.5. **Section 4 (Mitigation Measures)** presents the mitigation measures included in the Development and primarily concerns the landscape proposals illustrated by the Landscape Masterplan (Appendix 2) and Illustrative Cross Sections (1 to 6) (Appendix 3). Reference is made to relevant aspects of the architectural design.
- 1.3.6. **Section 5 (Effects on Landscape Character and Designations)** considers the potential effects on landscape character and landscape designations associated with the Site and/or principal study area.
- 1.3.7. **Section 6 (Assessment of Visual Effects)** deliberates the extent of visibility of the Development alongside evaluating the wider effects upon visual amenity, the fabric of the Site and adjacent land. It scrutinises potential visual effects for a range of receptors including residents, road users, visitors to Powis Castle and footpath users including on the Offa's Dyke National Trail. In total, 35 Viewpoint Locations are presented as part of the LVIA. Consideration is given to winter views from specific Viewpoint Locations, cumulative effects, plume visibility and the proposed lighting scheme separate to the visual impact assessment.
- 1.3.8. **Section 7 (Planning Assessment)** summarises current planning policy with regards to landscape and visual matters and its application to the Development.
- 1.3.9. **Section 8 (Summary and Conclusions)** provides an overview of the results from the LVIA.
- 1.3.10. Footnotes are included in the report and give reference sources. A full list is provided in Appendix 15.
- 1.3.11. A series of Figures accompany the report:
- ◆ Figure L1: Site Location and Landscape Character Classification (National Level);
 - ◆ Figure L2: Landscape Designations;



- ◆ Figure L3: LANDMAP Visual and Sensory Aspect Areas (within 10km); and
 - ◆ Figure L4 (Sheet 1): Topographic Analysis (Northern area) and Figure L4 (Sheet 2): Topographic Analysis (Southern area).
- 1.3.12. Figure L5: Zone of Theoretical Visibility (ZTV) Northern Area and Figure L6: Zone of Theoretical Visibility (ZTV) Southern Area demonstrate the area of potential visibility of the stack (purple shading) and the upper roof section of the ERF combined with the stack (blue shading).
- 1.3.13. Figure L7: Photograph Location Plan (Northern area) and Figure L8: Photograph Location Plan (Southern area) identify the 35 Viewpoint Locations used to assess visual effects. For each Viewpoint Location, a panoramic and single frame photograph enlargement are included. A photomontage has been prepared for all Viewpoint Locations (Figures L9 to L109) apart from for Viewpoint Locations 34 and 35 which assess the access road. This is in adherence with Technical Guidance Note 06/19 issued by the Landscape Institute in September 2019 as outlined in Appendix 1.³
- 1.3.14. Appendices referred to in this report include:
- ◆ Appendix 1: LVIA Methodology;
 - ◆ Appendix 2: Drawing BT1180-D2: Landscape Masterplan;
 - ◆ Appendix 3: Illustrative Cross Sections (1 to 6);
 - ◆ Appendix 4: Shropshire Hills (outliers) NLCA No.18 (2014) (Extract);
 - ◆ Appendix 5: National Landscape Character (Wales and England) (Table 5A prepared by B&A);
 - ◆ Appendix 6: LANDMAP Mid-Wales Area Statement (2018) (Extract);
 - ◆ Appendix 7: LANDMAP Site Related Aspect Areas (Extract);
 - ◆ Appendix 8: LANDMAP Aspect Areas within the Principal Study Area – Summary Details (Tables 8A to 8E prepared by B&A);
 - ◆ Appendix 9: Powys Landscape Character Assessment Study (2008) (Extract);
 - ◆ Appendix 10: The Shropshire Landscape Typology (2006) (Extract);
 - ◆ Appendix 11: Example existing view and equivalent night sky view (Sheets 1 to 6);
 - ◆ Appendix 12: Example photomontage winter views (Sheets 1 to 16);
 - ◆ Appendix 13: Example wireframe views to demonstrate methodology (Sheets 1 to 12);
 - ◆ Appendix 14: Illustrated maximum calculated plume length from Viewpoint 11; and

³ Visual Representation of Development Proposals, Technical Guidance Note 06/19, Landscape Institute, September 2019



- ◆ Appendix 15: Glossary, abbreviations, references, Scoping Matters and EIA Regulations (Schedule 4: Information for Inclusion in Environmental Statements) (Tables 15A to 15E).

1.4. DEFINITIONS USED IN THE LVIA

- 1.4.1. The following definitions are used in the LVIA and a full list is provided in Appendix 15.
- 1.4.2. The **Scoping Direction** refers to the document entitled *DNS: EIA Scoping Direction 3201953: Buttington Quarry, Proposed Energy Recovery Facility* issued by The Planning Inspectorate on behalf of the Welsh Government, dated 3 October 2018.
- 1.4.3. The **Development** relates to the proposed Buttington Quarry Energy Recovery Facility, Welshpool, Powys which will generate approximately 13MW of electricity through the treatment of 150,000 tonnes per annum of residential, commercial and industrial wastes. Namely, all activities within the red line planning boundary (see Drawing ECL-BQ-000 in Technical Appendix TA1-1).
- 1.4.4. The **ERF** concerns the proposed Energy Recovery Facility at Buttington Quarry.
- 1.4.5. The **ERF building** applies to the proposed built form, of note is the energy recovery hall (46m high) and waste reception hall (23m high) which represent the highest buildings. The stack is 70m high.
- 1.4.6. The **Site** refers to the Planning Application boundary (red line) shown on Figure L1: Site Location and Landscape Character Classification (National Level) and subsequent Figures where appropriate.
- 1.4.7. The **principal study area** is defined by the ZTV. For robustness, consideration has been given to areas in close proximity which may have relevance to the LVIA.
- 1.4.8. The **Landscape Masterplan** concerns Drawing BT1180-D2: Landscape Masterplan which is included in Appendix 2.
- 1.4.9. The **proposed lighting scheme** refers to the contents of the report and Drawings prepared by Illume Design (Dated 1 August 2019) namely, Drawing No. 4052-ID-DR-1001 (Rev D01) External Lighting Strategy Sheet 1 of 2 and Drawing No. 4052-ID-DR-1002 (Rev D01) External Lighting Strategy Sheet 2 of 2 which are provided in the ES. The night time photographs taken by B&A as part of the Assessment are included in Appendix 11 (Sheets 1 to 6).
- 1.4.10. The **GLVIA Third Edition** refers to the Guidelines for Landscape and Visual Impact Assessment (Third Edition), Landscape Institute and Institute of Environmental Management and Assessment (2013).



2. METHODOLOGY

2.1. INTRODUCTION

- 2.1.1. The Methodology employed in this LVIA is specific in that it relates to the proposed Buttington Quarry Energy Recovery Facility, Welshpool, Powys (the Development).
- 2.1.2. This Section summarises the Methodology adopted to undertake the LVIA which is provided in full in Appendix 1.
- 2.1.3. Guidance and methodology for the undertaking of the LVIA has been sourced from (in date order):
- ◆ Guidelines for Landscape and Visual Impact Assessment (Third Edition), Landscape Institute and Institute of Environmental Management and Assessment (2013)⁴;
 - ◆ An Approach to Landscape Character Assessment, Natural England (2014)⁵;
 - ◆ Visual Representation of Wind Farms, Guidance, Version 2.2, Scottish Natural Heritage (2017)⁶;
 - ◆ An Approach to Landscape Sensitivity Assessment – to Inform Spatial Planning and Land Management, Natural England (2019)⁷; and
 - ◆ Visual Representation of Development Proposals, Technical Guidance Note 06/19, Landscape Institute (2019).
- 2.1.4. Further to the above, consideration has been given to comments in the Scoping Direction together with those received from DCW and during the Pre-Application Consultation Process. Direction has been taken from LANDMAP including methodologies and guidance notes⁸, the Adopted Powys Local Development Plan 2011 – 2026 (April 2018), particularly with reference to Policy DM4 Landscape⁹ and supporting Supplementary Planning Guidance.
- 2.1.5. The Methodology is based on best practice guidance associated with undertaking LVIAs. Appendix 15 (Table 15A) includes a list of phrases commonly used in the LVIA process, although not all may appear in this report.

⁴ Guidelines for Landscape and Visual Impact Assessment (Third Edition), Landscape Institute and Institute of Environmental Management and Assessment, 2013

⁵ An Approach to Landscape Character Assessment, Natural England, October 2014

⁶ Visual Representation of Wind Farms, Guidance, Version 2.2, Scottish Natural Heritage, February 2017

⁷ An Approach to Landscape Sensitivity Assessment – to Inform Spatial Planning and Land Management, Natural England, June 2019

⁸ Natural Resources Wales, <https://naturalresources.wales>, sourced July 2020

⁹ Powys Local Development Plan 2011 – 2026, 1/4/2011 to 31/3/2026, Written Statement, Powys County Council, Adopted April 2018



- 2.1.6. The purpose and approach of the LVIA is to establish the main impacts of the Development upon landscape character, landscape designations and identified visual receptors against a defined baseline situation. It then determines the consequences and what the nature of these effects are likely to be. It assesses effects beyond or different to the baseline situation (Section 3).
- 2.1.7. The LVIA considers and describes the main landscape and visual effects which are likely to arise from the Development and generally assumes that an impact could lead to a **beneficial**, **adverse** or **neutral** effect. The definition of impact terminology has been developed to ensure that, wherever possible, an objective assessment has been made and that the terminology used is appropriate to the Development and the current baseline situation.
- 2.1.8. In adherence with current industry guidance, the GLVIA Third Edition, a distinction is made between the 'impact' (the action being taken) and 'effect' (the change resulting from that action) that the Development might have upon the landscape and visual amenity.
- 2.1.9. Current guidelines advise that the assessment of a particular development should take full account of the landscape (character) impacts as well as the potential visual impacts. Although they are separate, it is difficult to isolate each category and so both are considered as part of the assessment process.
- 2.1.10. The assessment of landscape and visual impacts involves three steps:
- ◆ Determining the sensitivity of the landscape or viewer group (i.e. the receptor) to the type of change envisaged;
 - ◆ Predicting the magnitude of change that would take place in the landscape or view; and
 - ◆ Evaluating the significance of that change, taking into account the sensitivity of the affected receptor and the magnitude of change.
- 2.1.11. In this LVIA, the assessment considers landscape and visual effects resulting from the Development during the construction, operational and decommissioning phases. Cumulative effects, winter views from specific Viewpoint Locations and night time effects due to the proposed lighting scheme have been evaluated separately to the visual impact assessment. Magnitude of impact is dealt with on a landscape or visual basis and the overall consideration of the effects takes into account the period of time that the effect occurs.
- 2.1.12. A narrative approach is used to describe and assess the likely changes. Reference should be made to the tables in Appendix 1. Table 1G: Predicted Significance of Landscape/Visual Effects presents the matrix employed as a guide for consistency of analysis for landscape and visual effects.



2.2. PRINCIPAL STUDY AREA

- 2.2.1. The principal study area is defined in this LVIA as the distance from the Development within which the landscape or visual effects might be deemed as being of potential significance and thus, relevant to the assessment process.
- 2.2.2. A preliminary study area of up to 20km was initially adopted with primarily assessable effects detected up to c.15km and key effects expected to be within 10km, given the nature of the Development.
- 2.2.3. Appendix 1 of the LVIA explains how the study area was determined.
- 2.2.4. Unless otherwise stated, direction and distance quoted in the text and shown on the accompanying Figures are from the proposed stack. For this LVIA, the immediate vicinity of the Site is within 500m, close range is from 500m to 3km and medium range from 3km to 6km. Long range is beyond 6km.
- 2.2.5. Site assessment and field work were conducted between 2016 and 2020 during both summer and winter months. The photographs used for the LVIA were taken in September and October 2018 and in July 2020. They are a fair representation of the current landscape setting. With regards to the proposed lighting scheme, the night time photographs were taken in September 2020 (Appendix 11) and the example photomontage winter views in February 2019 (Appendix 12).
- 2.2.6. The initial desk study was commenced in May 2018. It was reviewed in July 2020 and January 2021.

2.3. PLANNING POLICY

- 2.3.1. Planning policy is evaluated in Section 7 of the LVIA regarding landscape and visual matters with respect to the Development. At a national level, this includes Planning Policy Wales (Edition 10) (2018)¹⁰ and Technical Advice Notes (TAN)¹¹. At a county level, the Adopted Powys Local Development Plan 2011 – 2026 (April 2018) and Supplementary Planning Guidance (SPG) are relevant.

2.4. LANDSCAPE DESIGNATIONS

- 2.4.1. Figure L2 shows the landscape designations within the principal study area in so far as they are relevant to the purpose of the LVIA and these are expanded upon in Section 3. The hatched areas on Figure L2 denote the ZTV as an overlay for reference purposes.

¹⁰ Planning Policy Wales (Edition 10), The Welsh Government, December 2018

¹¹ The Welsh Government, <https://gov.wales/>, sourced July 2020



- 2.4.2. Landscape and cultural heritage designations which contribute to a sense of place and/or signify an amenity value for receptors have been assessed. Consideration has been given to comments made in the Scoping Direction. Appendix 1 (Table 1A) lists each designation (e.g. Scheduled Monument) and how it has been assessed in the LVIA. Reference has been made to guidance published by The Welsh Government Historic Environment Service (CADW) regarding the assessment of effects on cultural heritage assets and their settings (e.g. Scheduled Monuments and Registered Parks and Gardens) in Section 5.

2.5. LANDSCAPE CHARACTER ASSESSMENT

- 2.5.1. The different levels of Landscape Character Assessment are addressed in Section 3.
- 2.5.2. In summary, these include at a national level, National Landscape Character Areas (NLCAs) classified by Natural Resources Wales and National Character Areas (NCAs) categorised by Natural England (Appendix 5). Figure L1: Site Location and Landscape Character Classification (National Level) identifies the above and the Site is located on the western edge of the Shropshire Hills (outliers) NLCA No.18 (Appendix 4).
- 2.5.3. At a more detailed scale, information is provided by Natural Resources Wales through LANDMAP which classifies five Aspect layers: Geological Landscape, Visual and Sensory, Landscape Habitats, Historic Landscape and Cultural Landscape Services. The relevant Aspect layers at a Site level and the principal study area are addressed in the LVIA. Appendices 6 to 8 provide further information and extracts are included from the relevant sources. Figure L3: LANDMAP Visual and Sensory Aspect Areas identifies the Visual and Sensory Aspect Areas within c.10km. The Site is located within the MNTGMVS370 Crewgreen to Forden Hill and Scarp Aspect Area. B&A has appraised the Site Aspect layers and the Visual and Sensory Aspect Areas in the principal study area in Section 5.
- 2.5.4. The hatched areas on Figures L1 and L3 denote the ZTV as an overlay for reference purposes.
- 2.5.5. Also of relevance is the Powys Landscape Character Assessment Study (2008)¹² (Appendix 9) and The Shropshire Landscape Typology (2006) (Appendix 10).¹³

¹² Powys Landscape Character Assessment Study, John Campion Associates Ltd. (Commissioned by Powys County Council), 2008

¹³ The Shropshire Landscape Typology, Shropshire Council, September 2006



2.6. ZONE OF THEORETICAL VISIBILITY

- 2.6.1. Figures L5 and L6 demonstrate the Zone of Theoretical Visibility (ZTV) which has been identified using computer based analysis established on the potential visibility of the stack (purple shading) and the upper roof section of the ERF combined with the stack (blue shading). This is based on a 70m high stack. Mitigation measures including the proposed native woodland planting illustrated by the Landscape Masterplan are not factored into the ZTV.
- 2.6.2. The ZTV is founded on landform and key areas of existing woodland beyond the site boundary, digitised from Ordnance Survey (OS) data and may suggest a wider area than exists in reality. It is a broad assessment tool that then enables a more detailed level of evaluation. It is particularly relevant to visual impact assessment but also enables an evaluation of landscape character effects.
- 2.6.3. Figure L7: Photograph Location Plan (Northern area) and Figure L8: Photograph Location Plan (Southern area) identify the 35 Viewpoint Locations. A detailed description of the ZTV and the selection of the Viewpoint Locations is given in Section 6.

2.7. PRESENTATION METHODS

- 2.7.1. The Landscape Institute issued Technical Guidance Note 06/19 in September 2019 and provides advice on site photography techniques and the production of visualisations. Appropriate Visualisation Types 2-4 apply to most LVIA's for planning applications involving an EIA.
- 2.7.2. Appendix 1 explains how the advice has been adopted for this LVIA.
- 2.7.3. It is important to note that the photographs in the LVIA are provided as an '*aide memoire*'. A critical review of the visual assessment would need to be undertaken in the field at each viewpoint location to gain a better understanding of the Development in terms of the overall visual amenity.
- 2.7.4. For Viewpoint Locations 1 to 33, a panoramic view and single photograph enlargement is provided for the existing view. A single frame photograph photomontage view shows the proposed ERF building and the stack. Technical details regarding the preparation of the photomontage views is given in Appendix 1.
- 2.7.5. Details are provided regarding the illustrated plume and also the woodland planting shown on the photomontage views. With regards the former, this is based on the average calculated visible plume. Proposed native woodland planting is shown in summer after approximately 10 years when trees will be c.6m to 8m high. This is for illustrative purposes only and the visual effects described in Section 6 during the operation phase are based on the mitigation measures provided by the screen bunds and not the added benefit of new native woodland planting. In some of the close range views, both the wooded bund and the level of the proposed topographic form of the bund is shown to enable a balanced evaluation of the maximum effects. Clearly, there will be long term benefits due to the woodland planting which



has the potential to result in a gradual but positive change. This is reflected in the decommissioning phase.

- 2.7.6. B&A has prepared a series of wireframes through consultation with the appointed landscape advisors to the Local Planning Authority. Appendix 13 (Sheets 1 to 12) presents the wireframes.
- 2.7.7. The LVIA has considered the proposed lighting scheme for the Development (Appendix 11) and a description is provided in Section 6 from selected Viewpoint Locations. Further to the GLVIA Third Edition and Technical Guidance Note 06/19, reference has also been made to Guidance Note 01/20 issued by the Institute of Lighting Professionals in 2020.¹⁴

2.8. LANDSCAPE CHARACTER EFFECTS

- 2.8.1. The assessment of landscape character effects describes the key characteristics of the landscape and the likely nature and scale of changes to landscape elements and characteristics; and the consequential effect on the landscape character. It considers effects relating to the Development during construction, operation and decommissioning.
- 2.8.2. Sensitivity of the landscape helps to determine how development of a particular site may lead to a high or low change in the overall characteristics. Sensitivity may be **High**, **Medium** or **Low**, with two further categories for exceptional situations of **Very High** or **Very Low**.
- 2.8.3. The magnitude of impact relates to the scale of the changes in terms of the effects upon the landscape character of the Site (direct effects) and also the surrounding environs (indirect effects). Indirect effects on landscape character are assessed where the Development is visible in the principal study area (Figures L5 and L6). The magnitude of impact is based on an eight-point scale ranging from **Very Large to Negligible** or **No Impact**.
- 2.8.4. Consequently, a combination of the sensitivity of the landscape and the magnitude of the impact determines the significance of effect.
- 2.8.5. In line with the GLVIA Third Edition, final conclusions regarding the significance of effect specifically concern the development in question. Generally, a more significant effect would apply to the permanent loss of mature elements. A less significant effect involves the loss of uniform and homogenous elements and features or where there is a more degraded character and less associated value. This is judged against the current baseline situation presented in Section 3.

2.9. VISUAL EFFECTS

- 2.9.1. The assessment of significance of visual effects is approached in a similar manner to that previously described for landscape character. The sensitivity of the viewer (receptor) is defined according to the type of receptor. With reference to this Assessment, the following applies:

◆ Visitors to Powis Castle (**Very High**);

¹⁴ Guidance Note 01/20, Guidance notes for the reduction of obtrusive light, Institute of Lighting Professionals, 2020



- ◆ Established viewing point at Rodney's Pillar (**High**);
 - ◆ For residential properties, from ground floor locations/gardens (**High**) and upper floor windows (**Medium**);
 - ◆ Public footpaths/bridleways including the general footpath network (**Medium**), walkers (general recreation) (**Medium**), Severn Way long distance footpath users (**Medium**) and Offa's Dyke Path National Trail users (**High**);
 - ◆ **Road users** along 'A' and 'B' class roads (e.g. the A458, A483 and B4381), the general road network including on Heldre Lane, Garreg Bank (upper and lower), Criggion Lane, Bacheldre Lane, Castlehill Lane and views from the access road (**Low**);
 - ◆ Workers at employment areas close to the A458 at Buttington Bridge (**Low**); and
 - ◆ Recreation users at Llanymynech Golf Club (**Low**).
- 2.9.2. Viewpoint Locations are chosen to show the context of specific places where the Development might be most visible and in some cases, representative receptor sensitivity. It is recognised that sensitivity may vary on a personal basis as will receptor activity. Nevertheless, the Viewpoint Locations are used to provide an objective assessment of the primary receptor sensitivity. The current scene is described and a narrative provided of the changes relating to the Development during construction, operation and decommissioning.
- 2.9.3. Static views can typically include locations from residential areas and sequential views refer to those along roads and footpaths. The type of view is specified for each Viewpoint Location.
- 2.9.4. The magnitude of the visibility is rated on an eight-point scale ranging from **Very Large to Negligible** or **No Impact**. The significance of effect is then determined by comparing the magnitude and sensitivity in a consistent manner.

2.10. NATURE OF EFFECT

- 2.10.1. It is not the assumption of this LVIA that all change is **adverse**. Rather, it seeks to give objective consideration from the outset that the nature of effect can be **beneficial** or **adverse** and in some cases **neutral**.
- 2.10.2. Current guidance (GLVIA Third Edition) notes that *'It is also possible for effects to be neutral in their consequences for the landscape. An informed professional judgement should be made about this and the criteria used in reaching the judgement should be clearly stated. They might include, but should not be restricted to:*
- ◆ *The degree to which the proposal fits with existing character;*
and
 - ◆ *The contribution to the landscape that the development may make in its own right, usually by virtue of good design, even if it is in contrast to existing character'. (paragraph 5.37)*



- 2.10.3. This LVIA gives objective consideration to both landscape and visual effects with regard to the context, visual composition and the way in which the view is experienced.
- 2.10.4. An **adverse** nature of effect may occur where there is an increase of visibility in terms of the Site or changes to character of a negative or intrusive kind. This may ensue regarding views of earthworks and due to screen bund formation in the construction period. Crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF could result in **adverse** effects (e.g. at the skyline).
- 2.10.5. During the operation phase, **adverse** effects may occur with respect to potential views of building façades or rooflines of the ERF building and/or stack. This may arise when built form is seen against the skyline rather than a backdrop of hills or rising ground. When the stack is seen in isolation (i.e. without context to the overall Development), this may result in an **adverse** rather than **neutral** effect. As stated, during the operation phase, no allowance is made for the additional screening benefits offered by the proposed native woodland planting illustrated by the Landscape Masterplan. Consideration is given to the screen bunds only.
- 2.10.6. This Assessment recognises that if part of the Development can be assimilated into the landscape or is not visually overbearing and intrusive, it will not necessarily result in an **adverse** effect. In addition, a change is not necessarily an **adverse** effect so long as the land use and appearance are broadly in line with similar uses.
- 2.10.7. **Neutral** effects may arise when the proposals are unlikely to be identified immediately in terms of adversely affecting the characteristics or where they do not constitute an intrusive element in the overall visual amenity; this may apply when views are partially screened or at distance.
- 2.10.8. During decommissioning, cranes will remove taller elements such as the ERF building and stack which may lead to **adverse** visual effects. However, these will be temporary and/or generally of a short duration. The screen bunds will provide some screening of the demolition/removal of buildings and vehicle movements during ground restoration. Overall, **adverse** visual effects in this phase will primarily relate to visible crane movements and site activity where in view.
- 2.10.9. Proposed native woodland planting shown on the Landscape Masterplan will remain in perpetuity and will offer long term enhancement and mitigation for future employment uses at the Site. A **neutral** or **beneficial** nature of effect may occur as it matures. It is more likely to be **beneficial** at a close range with a **neutral** effect occurring at mid and long range.
- 2.10.10. Winter and summer views have been considered separately in Section 6 for selected Viewpoint Locations in the immediate vicinity and at a close range. Appendix 12 includes the example photomontage winter views (Sheets 1 to 16).



2.11. LANDSCAPE CAPACITY

- 2.11.1. Landscape capacity relates to the landscape character sensitivity and value and is also informed by the effects upon visual amenity. It provides an understanding of whether the predicted effects upon the character would be in keeping or not with the current landscape setting. It constitutes an all-encompassing consideration of whether a landscape might be capable of development whilst the essential qualities of the wider landscape character remain unchanged.
- 2.11.2. In this instance, a three-point scale has been adopted after considering the above:
- ◆ **Low** capacity: a landscape or visual amenity which cannot accommodate change;
 - ◆ **Medium** capacity: a landscape or visual amenity which could accommodate change in certain circumstances: and
 - ◆ **High** capacity: a landscape or visual amenity which can accommodate change.

2.12. RESIDUAL EFFECTS

- 2.12.1. B&A has designed the Landscape Masterplan which illustrates the mitigation measures (Appendix 2). During the construction phase, it is assumed that it will offer a visual effect whilst it is ongoing (e.g. screen bunds and planting). Once established, the assumption is that visual effects will decrease and residual effects will relate more to mitigating qualities for landscape character and visual matters as assessed in Sections 5 and 6 respectively.

2.13. SIGNIFICANCE OF EFFECT

- 2.13.1. The significance of a landscape or visual effect is a function of the sensitivity of the affected landscape or visual receptors, the magnitude of change that they will experience and the nature of the effect. The degree of significance of landscape and visual effects are unique to a particular proposal.
- 2.13.2. Tables 1F and 1G in Appendix 1 demonstrate the principles applied to assess the significance. Although where exceptions occur, professional judgement and assumptions are applied. For example, where significance falls between two categories.
- 2.13.3. In instances where a **Major** or a **Moderate to Major** significance of effect occurs, then the effect is likely to be considered significant (i.e. an impact that is likely to be a key material factor in the decision-making process). Where a **Moderate (adverse)** significance of effect has occurred then this has been reviewed whether it would constitute a significant effect.



2.14. CUMULATIVE EFFECTS

- 2.14.1. Cumulative landscape and visual effects have been considered in Sections 4 and 5 respectively. Guidance has been taken from the GLVIA Third Edition regarding cumulative landscape effects (paragraph 7.26) and visual effects (paragraph 7.38).
- 2.14.2. The LVIA has taken into account large scale commercial development such as warehouses along the main road network and on the edge of settlements:
- ◆ **Offa's Dyke Business Park** adjacent to the B4388 on the edge of Buttington (c.2.2km south-west);
 - ◆ **Buttington Cross Enterprise Park and the Welshpool Livestock Sales building** adjacent to the A458 and A483 roundabout on the northern edge of Welshpool (c.2.6km south-west); and
 - ◆ **Hanfaes Lane Industrial Estate** (c.4.1km south-west) and **Severn Farm Industrial Estate** (c.5km south-west) on the eastern edge of Welshpool.



3. THE BASELINE SITUATION

3.1. INTRODUCTION

- 3.1.1. The baseline situation represents the existing state within both the Site and the locality, although the information provided mainly applies to the principal study area as a whole.
- 3.1.2. This Section describes the baseline situation that will be used when determining the impact of the Development upon the landscape and visual amenity of the Site and surrounding area. It details the features observed through field work analysis as well as a review of plan and desk based research. This, combined with other landscape elements and features may have a greater or lesser effect upon the visual amenity and landscape character of the area, thus potentially affecting the visibility of the Development. It examines the existing landscape setting, landscape character and landscape designations in turn.
- 3.1.3. When reviewing this Section, reference should be made to Figure L1: Site Location and Landscape Character Classification (National Level), Figure L2: Landscape Designations and Figure L3: LANDMAP Visual and Sensory Aspect Areas (within 10km).
- 3.1.4. Figure L4 (Sheet 1): Topographic Analysis (Northern area) and Figure L4 (Sheet 2): Topographic Analysis (Southern area) illustrates the landform in the principal study area. Appendices 4 to 10 provide additional information regarding landscape character sources and includes extracts with tables prepared by B&A.

3.2. THE LANDSCAPE SETTING

Description of the Site

- 3.2.1. The Site (c.18ha) is located off the A458 Shrewsbury to Welshpool Road which currently provides access. The Site includes a section of the route for which access and highway improvements will be undertaken under an existing planning consent (Reference P/2015/0439). This has yet to be implemented and the construction of the access road is assessed as part of the LVIA (Section 6).
- 3.2.2. The Site is c.1.5km south of the village of Trewern and c.2.2km north-east of Buttington. Sale Lane is immediately to the east and Heldre Lane to the south.
- 3.2.3. The majority of the Site represents an altered landform of previous quarry working and tracks due to related activities. Site levels broadly range from 90mAOD to 130mAOD (Figure L4 Sheet 1). A partially formed screen bund is present along the eastern Site boundary bordering Sale Lane.



- 3.2.4. A public footpath passes through the northern periphery of the Site. In a wider context, it leads from Sale Lane in a westerly direction and then turns north-west near Cefn Cottage before linking to the A458.
- 3.2.5. Currently the Site operates in accordance with a Review of Mineral Permissions (ROMP) under the Environment Act 1995 (Reference P/2010/0165). The majority of the Site including the existing quarry void has been allocated for B1, B2 and B8 employment development under Policy E1 Employment Proposals on Allocated Employment Sites in the Adopted Powys Local Development Plan 2011 – 2026 (April 2018).

The Surrounding Landscape

- 3.2.6. The immediate setting of the Site comprises an area of elevated landform (c.129mAOD) and mature mixed woodland to the north-west. There are a number of buildings and a yard area south of the Site which previously formed part of quarry working (and an associated brickworks). Whilst the Buttington Brickwork SSSI is adjacent to the north.
- 3.2.7. Residential properties and farmsteads close to the Site include Cefn Cottage (c.45m) and Cefn Farm (c.50m) to the north. Green Farm which is adjacent to the Site and Whitehouse Farm (c.100m) are to the south on Heldre Lane and Sale Farm (c.40m) is east on Sale Lane. Welshpool represents the main settlement in the principal study area (c.2.6km south-west), Elsewhere, villages, residential properties and farmsteads are found along the main road network or reached by tracks leading from minor roads, particularly at higher levels.
- 3.2.8. A number of 'A' class roads (Trunk Roads) pass through the principal study area including the A458 and A483. Both of which feature commercial activities along their routes. This includes the Buttington Cross Enterprise Park and the Welshpool Livestock Sales building on the northern edge of Welshpool (c.2.6km south-west). The Hanfaes Lane Industrial Estate (c.4.1km south-west) and Severn Farm Industrial Estate (c.5km south-west) are east of the town centre (c.4km south-west). In addition, the Offa's Dyke Business Park is adjacent to the B4388 on the edge of Buttington (c.2.2km south-west). Elsewhere, minor roads and lanes are more frequent apart from in the Severn Valley to the west and north of the Site beyond the Welshpool-Shrewsbury railway line. A characteristic of minor roads is the presence of woodland and other vegetation.
- 3.2.9. The Site is located in a transitional area between the lower levels of the Severn Valley to the west and the higher uplands of Breidden Hill and Long Mountain to the east. Figure L4 (Sheets 1 and 2) (Northern and Southern area) illustrates the topography.
- 3.2.10. In terms of the principal study area, agriculture, woodland, hillside grazing and some urban areas represent the main landuses. Quarry working can be found at Criggion Quarry on the western side of Breidden Hill (c.4.1km north) and overhead power lines cross the Severn Valley (c.1km north-west). Agriculture is mixed and consists of both pasture and arable fields. There is often a lack of hedgerows with more irregular open fields on higher ground.



- 3.2.11. Tree cover is generally limited to large blocks of coniferous and mixed woodland on lower slopes. Open views are gained from the tops of hills to the north-east and east broadly within medium range and to the south-west and north-west at a long range. To the west, bordering the Severn Valley are areas of rolling hills and pasture with mixed broadleaf woodland. Large woodland tracts appear at higher elevations such as Oak Plantation (c.1.4km south), Crowther's Coppice and Allt Wood (c.2.2km north-west), Moel y Golfa (c.2.2km north) and Breidden Forest (c.3.3km north). Many are managed by conservation organisations or Natural Resources Wales. However, the location and nature of woodland in the wider landscape setting were not found to offer critical screening or mitigation features for the Development (see Section 6). In addition, the mixed woodland north-west of the Site mentioned above offers limited screening value.
- 3.2.12. Recreation and heritage related activities are noted aspects of the principal study area. In terms of the former, there are a number of golf courses including the Welshpool Golf Club (c.9.3km south-west) and Llanymynech Golf Club (c.11.9km north). Llanymynech Rocks Nature Reserve is on the site of a former quarry near Llanymynech Hill (c.11.7km north). Figure L2 shows the location of Powis Castle (National Trust) which is south-west of Welshpool (c.6km south-west). Maesfron Hall and Gardens is a privately owned house and garden in Trewern (c.1.6km north-east).¹⁵ Both include Listed Buildings and are categorised as a Registered Park and Garden of Special Historic Interest in Wales (CADW) (Figure L2).
- 3.2.13. A section of the Montgomery Canal passes through the principal study area. The Offa's Dyke Path National Trail¹⁶ runs adjacent (c.1.8km north-west) and the Severn Way (long distance footpath)¹⁷ also runs concurrently in places (Figure L2). Whilst the Glyndwr's Way National Trail leads in a westerly direction from Welshpool. With regards to the general public footpath network, many follow tracks to individual farmsteads or villages. The Sustrans National Route No.81 runs along minor roads to the south-east of the Site (c.2.2km).¹⁸ In addition to public footpaths there is access land at Heldre Hill (c.1.2km south-east).
- 3.2.14. When considering topography, it is useful to examine the principal study area as a whole (refer to Figure L4 Sheets 1 and 2). The Severn Valley broadly lies 50mAOD to 90mAOD and landform begins to rise c.2km to the west. The Site is located on the edge of an area of higher ground to the east of the Severn Valley which then rises steeply eastwards beyond close range culminating in the elevated hill formation of the Long Mountain (above c.350mAOD). Long Mountain includes individual summits notably Heldre Hill (c.367mAOD) (c.2km south-east). Other areas of higher land include to the north-east at Moel y Golfa (403mAOD) (c.3.3km), Middletown Hill (367mAOD) (c.4.9km) and Breidden Hill (365mAOD) (c.5km). At a further distance to the south-west is Y Golfa (341mAOD) (c.9km) and to the north is Llanymynech Hill (c.225mAOD) (c.12km).

¹⁵ Maesfron Hall and Gardens, <https://www.maesfron.co.uk>, sourced July 2020

¹⁶ National Trails, <https://www.nationaltrail.co.uk/>, sourced July 2020

¹⁷ Long Distance Walkers Association, <https://www.ldwa.org.uk>, sourced July 2020

¹⁸ SUSTRANS, <https://www.sustrans.org.uk>, sourced July 2020



3.3. LANDSCAPE CHARACTER NATIONAL LEVEL

- 3.3.1. National Landscape Character Areas (NLCAs) form the broadest scale of landscape character assessment in Wales. Information is provided by Natural Resources Wales.
- 3.3.2. Reference to Figure L1: Site Location and Landscape Character Classification (National Level) shows that the Site is located on the western edge of the **Shropshire Hills (outliers) NLCA No.18** which is described as an agricultural landscape with hedgerows, mature trees and woodlands.¹⁹
- 3.3.3. Selected key characteristics include:
- ◆ **'Outlying hills** - a group of distinctive hills that are physically separate from the main upland areas of Wales this rise to the west, but that relate in many ways to those further east in Shropshire;
 - ◆ **Hills, scarps** - Ordovician sandstone long 'whale-back' ridges and conical or steep sided hills with localised tuff / volcanic rock and igneous rock outcrops;
 - ◆ **Vales and lower hills** - seasonally wet silty soils over shale support lush, grazing pasture interspersed with deciduous woodland on the lower slopes/foothills;
 - ◆ **Upland hill tops** - thin, infertile soils on the sandstones / volcanic rocks of the hill crests support moorland grassland. Corndon Hill is the largest upland area and has ecologically rich moorland and wet woodland;
 - ◆ **Dramatic and abrupt elevation of Breiddon Hills** - notably from the Severn valley flood plain, and notably with a prominent quarrying scar;
 - ◆ **Hilltop and defensive sites** - prehistoric ritual sites on the hilltops, such as the burial cairns on Corndon Hill, Medieval moated sites in the Vale and in the well preserved section of Offa's Dyke falling within the area...;
 - ◆ **Settlement generally confined to the Vale** - associated with historic river crossing points...;
 - ◆ **Open views across the Vale** - and neighbouring Severn Valley. Views from Montgomery into England;
 - ◆ **Field pattern** - Larger scale fields and straighter boundaries than in much of the rest of Wales, but with exceptions e.g. around Corndon and Roundton Hills, where the pattern is more characteristically small scale, with high hedges and narrow lanes; and
 - ◆ **Very rural**'.
- 3.3.4. Viewpoint Location 1 to 11, 13 and 14 and 16 to 18 assessed in the LVIA are located in this NLCA.

¹⁹ Shropshire Hills (outliers) NLCA18, Natural Resources Wales, 2014



- 3.3.5. Within the immediate vicinity is the Severn Valley NLCA No.19 (c.320m north-west) which is noted as a major river valley and a transport corridor (road and rail). Welshpool is identified as a main settlement whilst farmland features in the flood plain and along valley sides.²⁰
- 3.3.6. Figure L1 also identifies the National Character Areas (NCAs) categorised by Natural England namely:
- ❖ Shropshire, Cheshire and Staffordshire Plain NCA No.61 (c.7.7km east) an extensive, gently undulating plain;²¹
 - ❖ Oswestry Uplands NCA No.63 (c.11.2km north) steeply sloping, flat-topped, predominantly limestone hills;²² and
 - ❖ Shropshire Hills NCA No.65 (c.2.6km east) comprising a series of ridges, scarps and intervening valleys.²³
- 3.3.7. Appendix 5 lists the key characteristics of the NLCAs and NCAs within the principal study area and identifies Viewpoint Locations appraised in the LVIA.

3.4. LANDMAP

- 3.4.1. LANDMAP is the formally adopted methodology for landscape character assessment in Wales provided by Natural Resources Wales²⁴ and includes the following information:
- ❖ *'Maps and classifies landscapes and describes their key characteristics, qualities and components;*
 - ❖ *Evaluates their importance from a national to local scale;*
 - ❖ *Recommends locally appropriate management guidelines'; and*
 - ❖ *'Identifies significant landscape change through monitoring of the baseline resource'.*
- 3.4.2. LANDMAP divides Wales into six Area Statements (April 2018) which offer information on landscape character at a regional scale. The Site (and wider principal study area) is located in the Mid-Wales Area Statement. Headline Characteristics refer to the contrast of upland and lowland landscapes along with cultural heritage assets. Landscape Change mentions *'Increasing commercial development, landscape scale road improvements and mining and reclamation works'*. As a general principle, outstanding and high landscapes with characteristics of national and county value should be conserved and enhanced. Landscapes of lower quality should be enhanced to contribute to wellbeing. An extract is provided in Appendix 6.

²⁰ Severn Valley NLCA19, Natural Resources Wales, 2014

²¹ NCA Profile: 61 Shropshire, Cheshire and Staffordshire Plain (NE556), Natural England, 2014

²² NCA Profile: 63 Oswestry Uplands (NE548), Natural England, 2014

²³ NCA Profile: 65 Shropshire Hills (NE447), Natural England, 2013

²⁴ Natural Resources Wales, <https://naturalresources.wales/>, sourced July 2020



- 3.4.3. At a more detailed scale, LANDMAP identifies five Aspect layers, namely Geological Landscape, Visual and Sensory, Landscape Habitats, Historic Landscape and Cultural Landscape Services. Appendix 7 provides extracts for the Site related Aspect Areas and Appendix 8, the Aspect Areas in the principal study area. Tables have been prepared by B&A and includes information relevant to the LVIA. Distance and direction is provided from the proposed stack and relevant Viewpoint Locations are noted.
- 3.4.4. Broadly, the Aspect Areas are evaluated as Outstanding (nationally important), High (regional or county importance), Moderate (local importance) or Low (little or no importance) by LANDMAP.²⁵

The Site Aspect Areas

- 3.4.5. Reference to Figure L3: LANDMAP Visual and Sensory Aspect Areas (within 10km) shows that the Site is located within the MNTGMVS370 Crewgreen to Forden Hill and Scarp Aspect Area. In terms of the principal study area, it extends to the north-east (c.6km), east (c.2.7km) and south-west (c.10km).
- 3.4.6. The Aspect Area is described as a '*... topographical transition between the upland peaks of Breidden Hill and Long Mountain and the floodplain of the River Severn. Largely west facing and typified by a patchwork of grazed and some low intensity arable farming with managed hedgerows, occasional patches of woodland lie along stream courses and in lower lying areas*'.
- 3.4.7. The Overall Evaluation is classified as Moderate (local importance).²⁶ With regards to the Evaluation Matrix, the following applies:
- ◆ **Scenic quality: High** ('A landscape with some scenes of a picturesque quality, which are aesthetically pleasing in composition. The area is notable for these regionally');
 - ◆ **Integrity: Moderate** ('Some characteristic features remain intact but others are fragmented, and/or partly spoilt by some large-scale, visually intrusive or other inharmonious development');
 - ◆ **Character: Moderate** ('Landscapes with some distinctive characteristics whose patterns of elements and features contribute to a local sense of place'); and
 - ◆ **Rarity: Low** ('Characteristic features and qualities present are common or widely distributed across the study area (county) or beyond').
- 3.4.8. Table 2 summarises the main aspects of the MNTGMVS370 Crewgreen to Forden Hill and Scarp Aspect Area which are relevant to the LVIA. Viewpoint Location 1 to 4, 7, 9 to 14, 34 and 35 are within this Aspect Area. Attractive views outwith the Aspect Area refers to the '*surrounding rolling and upland landscapes*'.

²⁵ LANDMAP Methodology Overview, National Resources Wales, June 2017

²⁶ LANDMAP Methodology Visual and Sensory, Natural Resources Wales, 2016



Table 2: MNTGMVS370 Crewgreen to Forden Hill and Scarp Aspect Area

ITEM	LANDMAP ASSESSMENT
Aspect Area Classification	Upland/Hills, Lower Plateau & Scarp Slopes/Hillside & Scarp Slopes Grazing (Level 3)
Date of survey	09/02/2004 (Date of Monitoring: 06/02/2015)
Summary Description	<i>Forms the topographical transition between the upland peaks of Breidden Hill and Long Mountain and the floodplain of the River Severn. Largely west facing and typified by a patchwork of grazed and some low intensity arable farming with managed hedgerows, occasional patches of woodland lie along stream courses and in lower lying areas.</i>
Description	
Physical form and elements - Topographic form	<i>Hills/Valleys</i>
Landcover pattern	<i>Field Pattern/Mosaic</i>
Settlement pattern	<i>Scattered Rural/Farm</i>
Boundary type	<i>Managed Hedge</i>
Aesthetic Qualities	
Scale (<i>Medium</i>), Sense of enclosure (<i>Open</i>), Diversity (<i>Simple</i>), Texture (<i>Medium</i>), Lines (<i>Angular</i>), Colour (<i>Muted</i>), Balance (<i>Balanced</i>), Unity (<i>Neutral</i>), Pattern (<i>Organised</i>).	
There are attractive views	<i>both in and out (To surrounding rolling and upland landscapes)</i>
There are detractive views	<i>...within (Criggion Quarry workings)</i>
Perceptual and other sensory qualities	<i>Attractive, Unattractive (Criggion Quarry workings), Safe, Settled</i>
What is the sense of place/local distinctiveness	<i>Moderate (N/A)</i>
Evaluation	
Value (<i>Moderate</i>), Condition (<i>Good</i>), Trend (<i>Constant</i>)	
Recommendations	
Define the key qualities that should be conserved	<i>Balance between mixed farmland practices to maintain field pattern distribution.</i>
Define the key qualities that should be enhanced	<i>Increase proportion of hedgerow trees within field boundaries.</i>
Define the key qualities that should be changed	<i>Expansion of quarrying/excavation works and associated development over adjacent farmland.</i>
Define the key elements that should be conserved	<i>N/A</i>
Define the key elements that should be enhanced	<i>Hedgerow boundaries to improve diversity of vegetation / management type.</i>
Define the key elements that should be changed	<i>N/A</i>
Principal management recommendation	<i>Maintain as existing</i>
Evaluation Matrix	
Evaluation Criteria: Overall Evaluation	<i>Moderate (N/A)</i>
Justification of overall evaluation	<i>Typical example of farming practices and fields patterns displaying hedgerow boundaries and woodland blocks in lower lying areas that could benefit from enhancement through additional planting along boundaries = Moderate.</i>
Scenic quality (The extent to which the area has scenes which are of a picturesque quality, demonstrating aesthetically pleasing elements in composition)	<i>High (N/A)</i>
Integrity (The extent to which the area is in good condition, with consistent character throughout, and is generally unspoilt by large-scale, visually intrusive or other inharmonious development)	<i>Moderate (N/A)</i>
Character (The extent to which a distinct and recognisable pattern of elements, features and qualities occurs within the Aspect Area, to give a clear sense of place)	<i>Moderate (N/A)</i>



ITEM	LANDMAP ASSESSMENT
Rarity (The extent to which the area's visual & sensory character and/or features or qualities are rare/representative locally, regionally or nationally/internationally...)	Low (N/A)
Guidelines/Existing management	
Guideline	<i>Long Term (Maintain balance between different farming practices), Medium Term (Limit expansion of quarrying works at Criggion Quarry), Medium Term (Limit expansion of clay extraction at Cefn Brickworks), Long Term (Restoration of quarried and clay extraction works to emulate late existing).</i>
Existing management remarks	<i>Mixture of grazing and limited arable farming with some woodland patches throughout the aspect area.</i>
Existing management	<i>Generally Appropriate</i>

3.4.9. The table below addresses the other Aspect layers applicable to the Site. It provides context in terms of the Site and principal study area together with a summary of the LANDMAP assessment. Table 5 provides more detailed information and the results of Site analysis by B&A (Section 5). The full survey sheets are included in Appendix 7 for reference.

Table 3: Other Site Related Aspect Layers

ITEM	SUMMARY DESCRIPTION AND EVALUATION
Geological Landscape: MNTGMGL697 Hope	
Application to the LVIA	
Viewpoint Locations	1, 2, 4, 34 and 35
Site Location/Principal Study Area	The Site is on the western edge of the Aspect Area. It continues to the east c.2.8km and south-west c.5km.
LANDMAP Summary	
What is the geographical and topographical character of this area?	<i>Forms the lower part of the scarp face of Long Mountain. Generally moderately steep, but levelling out at base. Mainly developed in Wenlock (Middle Silurian) mudrocks, with minor Llandovery (Lower Silurian) at base. Cwms present with probably glacial infill.</i>
Evaluation Matrix	<i>Research Value, Educational Value, Historical Value, Rarity/Uniqueness and Classic Example (All Outstanding)</i>
Overall Evaluation	Outstanding (Includes nationally important geology (Buttington Brickworks SSSI))
Historic Landscape: MNTGMHL310 Buttington/Middletown	
Application to the LVIA	
Viewpoint Locations	1 to 5, 7, 14, 34 and 35
Site Location/Principal Study Area	The Site is on the western edge of the Aspect Area which extends to the north-east (c.5km), east (c.2.7km) and south-west (c.4.7km) within the principal study area.
LANDMAP Summary	
Summary Description/Key Patterns and Elements	<i>Mixed, irregular fieldscapes probably of medieval to post-medieval origin on western and northern flanks of Long Mountain. The area is crossed by the early medieval Offa's Dyke. Dispersed farms and cottages of medieval to post-medieval origin. Small nucleated church settlements possibly of medieval origin at Buttington and Middletown.</i>
Evaluation Matrix	<i>Integrity (Moderate), Potential (Outstanding), Rarity (High), Survival (High) and Condition (Moderate)</i>
Overall Evaluation/Justification	High (Area of irregular fields occupying the lower west facing slopes of Long Mountain to the east of the Severn. Predominantly medieval and later farms and agriculture. Also containing a section of Offa's Dyke, potentially Saxon settlement of Buttington (and its possible battle site) and the later village of Middletown. Scores well because of its complex content.
Landscape Habitats: MNTGMLH033	
Application to the LVIA	
Viewpoint Locations	1 to 5, 7 to 14, 20 to 22, 26, 28, 30, 34 and 35
Site Location/Principal Study Area	The Site is situated in the central environs of the Aspect Area. It extends to c.1km in all directions from the Site and continues north (c.10km), north-east (c.4.9km), south (c.15km) and west (c.2.2km).



ITEM	SUMMARY DESCRIPTION AND EVALUATION
LANDMAP Summary	
Summarise the key features that define this area's biodiversity character	<i>This area is made up of pasture and arable fields along the flat valley floor adjacent to the river Severn. The mixed patterned of grass and arable fields together with small ribbons of woodland which follow streams and the river itself give an important mosaic to the landscape which is enhanced by the occasional unimproved fields continuing interesting native species such as Gwaun Bryn Pasture SSSI. This mosaic is also important for a wide range of bat and bird species. Of great significance to this area is the which runs from Llanymynech to Freestone Locks near Newtown. Montgomery Canal is of special interest because it supports aquatic, emergent and marginal plant communities of exceptional richness, including a large population of the internationally rare and threatened floating water plantain Luronium natans and a several other rare and scarce water plants. An important aquatic invertebrate assemblage is also present.</i>
Evaluation Matrix	<i>Priority Habitats (High), Significance (High), Opportunity (High), Expansion rates (Unassessed), Sensitivity (Unassessed), Connectivity/Cohesion (High), Habitat Evaluation (High), Importance for key species (High).</i>
Overall Evaluation/Justification	High (Although the area is mainly improved and arable land there are some very significant features in the area including the river Severn, and the Montgomery canal which is of special interest because it supports aquatic, emergent and marginal plant communities of exceptional richness, including a large population of the internationally rare and threatened floating water plantain Luronium natans and a several other rare and scarce water plants. There are also some traditional species-rich hay meadows in the area. The existence of hedges and mixed land use all contribute to this area's richness and its High value).
Cultural Landscape Services: MNTGMCLS044 Crewgreen to Forden Hill and Scarp	
Application to the LVIA	
Viewpoint Locations	1 to 4, 7, 9 to 14, 34 and 35
Site Location/Principal Study Area	The Site is on the western edge of the Aspect Area. It extends to the east and south within close range (c.2.7km) and then continues to c.10km south-west and c.4.5km north.
LANDMAP Summary	
Night time light pollution	<i>Slight</i>
Wales Tranquil Area assessment	<i>(Zone B significant disturbance; Zone C some disturbance; Undisturbed; Urban) (Mosaic of: Undisturbed, Zone C, Zone B)...</i>
International Dark Sky Reserve or Dark Sky Reserve	<i>No</i>
Visual and Sensory Landscape Evaluation	<i>Moderate</i>
Geological Landscape evaluation	<i>Mosaic of Moderate, High or Outstanding</i>
Landscape Habitats evaluation	<i>Over 75% High or Outstanding</i>
Historic Landscape evaluation	<i>Over 75% High or Outstanding</i>

Principal Study Area Aspect Areas

- 3.4.10. Appendix 8 summarises the Aspect Areas within the principal study area relating to the five LANDMAP layers according to their Overall Evaluation and distance from the stack. The tables have been prepared by B&A and include information relevant to the LVIA.
- 3.4.11. The LANDMAP Methodologies and Evaluation for each Aspect layer have been reviewed. It should be noted that no specific Evaluation ratings are provided for Cultural Landscape Services Aspect Areas. Instead, the 2019 update combines data from other Aspect layers with information on cultural matters (e.g. Welsh language, literature and cultural heritage).²⁷

²⁷ LANDMAP Cultural Landscape Services, Report No 336, Natural Resources Wales, 2019



Visual and Sensory

3.4.12. Figure L3 shows the Visual and Sensory Aspect Areas within c.10km. The majority within the principal study area are categorised as being Moderate (local importance). In close range, the following Aspect Areas are categorised as High (regional or county importance):

- ◆ **MNTGMVS301 Long Mountain** *'The balanced of upland grazed plateau, rectilinear field pattern with managed hedgelines and woodland blocks is unusual ...'* (c.950m south) (Viewpoint Location 5 and 6);
- ◆ **MNTGMVS612 Guilsfield Rolling Farmlands** *'Extensive area of well-defined traditional farming landscape, high aesthetic qualities and limited intrusion by modern development'* (c.1.8km north-west) (Viewpoint Location 19, 24 and 29); and
- ◆ **MNTGMVS762 Welshpool** *'One of the main principal settlements of Montgomeryshire and a town that still displays much of an individual market town character. Distinct and well maintained town centre with a wide range of traditional buildings displaying vernacular detailing. The town has modernised but still retains the majority of its character, new infill housing development to the outskirts is uninspiring but industrial development at Buttington Cross has moved away from the shed developments typical of the 70's/80's'* (c.2.5km south-west) (Viewpoint Location 23).

Historic Landscape

3.4.13. Reference to the Evaluation/Justification assessment shows that the Historic Landscape Aspect Areas within the principal study area are generally either Outstanding or High. This is based on a ratings score taking into account Integrity, Potential, Rarity, Survival and Condition. Low being defined as poor.²⁸

3.4.14. With regards to Aspect Areas categorised as Outstanding:

- ◆ In the immediate vicinity is **MNTGMHL441 Lower Severn Valley** *'Regularly enclosed floor of the Severn valley. Ostensibly a post medieval and medieval farming landscape but also contains nationally important earlier prehistoric ritual complexes, a Roman fort and military settlement, Offa's Dyke and Cistercian Abbey, as well as numerous lesser archaeological sites all of which contribute to its high scores'* (c.250m north); and

²⁸ LANDMAP Methodology Historic Landscape, Natural Resources Wales, 2016



- ◆ In close range are **MNTGMHL966 Breidden Hills** 'Complex volcanic plug, and its immediate environs, sporting three hillforts and a minor medieval settlement. Although partially afforested the area retains enough significance to score highly' (c.1.5km north) and **MNTGMHL501 Arddleen** 'Stragglings area of regular fields occupying flat land above the Severn floodplain. The area contains significant remains of ridge and furrow field systems associated with medieval and later farms and farmsteads all of which overlie significant areas of earlier and later prehistoric settlements and burial monuments and is overlain by canal archaeology and a Turnpike road. Its complexity contributes to its high scores' (c.1.7km north).

3.4.15. The following Aspect Areas are in close range and classed as High:

- ◆ **MNTGMHL707 Long Mountain** 'Upland ridge, formerly common land, enclosed by large square fields. Apart from farming remains it also contains early prehistoric burial archaeology and settlement and an Iron Age hillfort ...' (c.1.2km south-east);
- ◆ **MNTGMHL785 Leighton Woodland:** 'Area of largely coniferous woodland occupying the eastern slopes of the Severn valley. Planted over much of the former Leighton estate and containing many features relating to infrastructure of the estate and its model farm. Also contains the line of Offa's Dyke. Condition is effected by the modern landuse'. (c.1.3km south); and
- ◆ **MNTGMHL129 Trelydan:** 'Broad undulating ridge on the west of the Severn valley to the north of Welshpool. Dominated by medieval (and later) farming with occasional intrusions by prehistory ...' (c.1.9km north-west).

Landscape Habitats²⁹

3.4.16. Reference to the Overall Evaluation Habitat and Species shows that the majority are categorised as Moderate (local importance). Within close range there is one Aspect Area, **MNTGMHLH035** which is classified as Outstanding (international or national importance) due to the '... *geological complexity of the site which drives habitat and species diversity leading to a remarkable mixture of both lime loving and acid loving plants, the Aspect Area is in large proportion SSSI of internationally important habitats which support a corresponding range of important species*'. (c.2.2km north-east).

Geological Landscape³⁰

3.4.17. The majority are categorised as Moderate (local importance). Within close range is **MNTGMGL108 Geuffordd-Welshpool** (c.1.7km west) which is classified as Outstanding (international or national importance) and recognised in part for SSSIs and Sites of Regional Significance.

²⁹ LANDMAP Methodology Landscape Habitats, Natural Resources Wales, 2016

³⁰ LANDMAP Methodology Geological Landscape, Natural Resources Wales, 2016



- 3.4.18. In terms of High (regional or county importance), within the immediate vicinity is **MNTGMGL769 Severn** (c.550m west) which is noted as a major river system. At a close range is **MNTGMGL363 Middletown** (c.1.7km north-east) and **MNTGMGL422 Breidden Forest** (c.2.2km north-east) which are both recognised for regionally important geological sites.

Cultural Landscape Services

- 3.4.19. Appendix 8 provides additional details on each Cultural Landscape Services Aspect Area within the principal study area. In terms of night time light pollution, overall, levels are generally Negligible but with some Aspect Areas being categorised as Slight or Moderate. A limited number of Aspect Areas are judged to be Substantial, including MNTGMCLS090 River Severn Flood plain which is in the immediate vicinity (c.300m north).

3.5. POWYS LANDSCAPE CHARACTER ASSESSMENT STUDY (2008)

- 3.5.1. The Powys Landscape Character Assessment Study was published in 2008. The Study used the LANDMAP baseline data which was then complemented by additional desk study and field work to identify Landscape Character Areas (LCA). The information provided here is for background purposes in relation to the Site and an extract is included in Appendix 9.
- 3.5.2. The Site is situated within the Long Mountain/Breidden Hills LCA M18. East of Welshpool, this particular LCA follows similar boundaries to that of the MNTGMVS370 Crewgreen to Forden Hill and Scarp Aspect Area noted previously from LANDMAP. Reference is made to the area being used for managed upland grazing, with a notable rectilinear field pattern and lack of individual or hedgerow trees. Limited woodland blocks appear on lower slopes with more expansive areas on higher ground, including some coniferous plantations. No sensitivity ratings are provided for the LCAs.

3.6. THE SHROPSHIRE LANDSCAPE TYPOLOGY (2006)

- 3.6.1. The Shropshire Landscape Typology (2006) offers detailed information regarding landscape character and broadly includes the eastern and northern parts of the principal study area beyond c.2.6km and c.10km respectively. The relevant Landscape Types (LTs) are summarised below. Viewpoint Location 15 is within the Settled Pastoral Farmlands LT and Viewpoint Location 32 is in the Wooded Hills and Farmlands LT. Appendix 10 provides additional information regarding each LT:
- ◆ **Enclosed Lowland Heaths LT:** *'Undulating lowland, Impoverished, freely draining soils, Planned woodland character and Dispersed settlement pattern'* (c.6.6km north-east);
 - ◆ **Lowland Moss LT:** *'Flat, lowland topography, Large scale with open views, Peat soils, Peat cuttings and Unsettled'* (c.9.5km north and a separate area c.11.3km north);



- ◆ **Pasture Hills LT:** *'Prominent, sloping topography, Hedge fields with mainly ancient origins, Pastoral land use, Dispersed settlement pattern and Medium to large scale landscape with filtered views'* (two separate areas, c.2.7km east and c.11.9km north-west);
- ◆ **Principal Timbered Farmlands LT:** *'Rolling lowland with occasional steep sided hills, Relic ancient woodland, Hedged fields with scattered hedgerow trees, Predominantly dispersed settlement, Pattern and Small to medium scale landscapes with filtered views'* (c.13.3km north);
- ◆ **Settled Pastoral Farmlands LT:** *'Heavy, poorly drained soils, Pastoral land use, Scattered hedgerow trees, Irregular field pattern and Small to medium scale landscapes'* (two areas c.2.6km and c.3.5km east with a further area north c.10.3km);
- ◆ **Timbered Plateau Farmlands LT:** *'Upstanding plateau with rolling relief, dissected by valleys, Linear ancient woodlands in valleys and dingles, Mixed farming land use, Ancient pattern of irregular hedged fields and Medium scale landscape'* (c.14.7km north);
- ◆ **Upland Smallholdings LT:** *'Prominent, sloping topography, Dispersed settlement pattern of wayside cottages, Small hedged pasture fields and Areas of unenclosed moorland'* (c.5.2km north-east and c.11.3km north); and
- ◆ **Wooded Hills and Farmlands LT:** *'Prominent, sloping topography, Hedged fields with predominantly ancient origins, Large discrete woodlands with ancient character, Mixed farming land use, Dispersed settlement pattern and Medium scale landscapes with framed views'* (c.14.1km north).

3.7. LANDSCAPE DESIGNATIONS

- 3.7.1. Landscape and cultural heritage designations which contribute to a sense of place and/or signify an amenity value for receptors such as footpath users and visitors have been reviewed for this LVIA.
- 3.7.2. The Site is not located in a statutory or non-statutory landscape designation.
- 3.7.3. Figure L2: Landscape Designations identifies the following listed in Table 4.
- 3.7.4. In addition, there are a number of Listed Buildings within c.2km of the Site and the nearest are just beyond c.1km within close range:
 - ◆ Middle Heldre Farmhouse, Grade II (Record Number 15646) (c.1.2km east);
 - ◆ Buttington Old Hall Farmhouse, Grade II (Record Number 7903) (c.1.3km south-west); and
 - ◆ Trewern Hall, Grade II* (Record Number 7920) (c.1.3km north).
- 3.7.5. More detailed information regarding Listed Buildings and Scheduled Monuments etc. is provided in the Archaeology and Cultural Heritage technical report submitted as part of the DNS application (see Chapter 12 and associated Technical Appendix 12-1).



Table 4: Landscape Designations

DESIGNATION (REFERENCE/NAME)	DISTANCE AND DIRECTION (RANGE)
National Trust³¹	
Powis Castle and Garden	c.6km south-west (medium range)
Register of Parks and Gardens of Special Historic Interest in Wales (CADW) and Register of Parks and Gardens of Special Historic Interest in Wales Essential Settings (CADW) ³² (identified in the principal study area)	
(1) PGW (Po) 53 (POW) Maesfron (Grade II)	c.1.6km north-east (close range)
(2) PGW (Po) 34 (POW) Leighton Hall (Grade I) (NB. the northern periphery of the essential setting is within the principal study area)	c.5km south (medium range)
(3) PGW (Po) 36 (POW) Llanerchydol Hall (Grade II*)	c.5.7km south-west (medium range)
(4) PGW (Po) 35 (POW) Powis Castle Garden (Grade I)	c.6km south-west (medium range)
(5) PGW(Po) 41 (POW) Bryngwyn Hall (Grade II*) (NB. the south-eastern part of the essential setting is within the principal study area)	c.11.2km north-west (long range)
(6) PGW(Po) 31 (POW) Glansevern Hall (Grade II*)	c.11.4km south-west (long range)
(7) PGW(Po) 32 (POW) Vaynor Park (Grade I)	c.12.6km south-west (long range)
(8) PGW(Po) 42 (POW) Bodynfoel Hall (Grade II) (NB. the western edge of the essential setting is within the principal study area)	c.13.2km north-west (long range)
(9) PGW(Po) 58 (POW) Garthmyl Hall (Grade II)	c.13.3km south-west (long range)
Historic Landscape³³	
Vale of Montgomery Historic Landscape No.35	c.7.8km south (long range)
Conservation Areas (identified in the principal study area)	
(A) Welshpool	c.4.5km south-west (medium range)
(B) Llanymynech	c.10.7km north (long range)
(C) Bwlch-y-cibau	c.11.5km north-west (long range)
(D) Aberriw/Berriew	c.12.2km south-west (long range)
Scheduled Monuments (CADW) (identified in the principal study area within c.2.5km of the stack)	
(i) MG120 Strata Marcella Abbey	c.1.7km west (close range)
(ii) MG143 Crowther's Coppice Camp	c.2.4km north-west (close range)
(iii) MG224 Offa's Dyke: South of School House	c.2.5km south-west (close range)

³¹ National Trust, <https://www.nationaltrust.org.uk/powis-castle-and-garden>, sourced July 2020

³² The Welsh Government Historic Environment Service, <http://cadw.gov.wales>, sourced July 2020

³³ Clwyd-Powys Archaeological Trust, <http://www.cpat.org.uk/projects/longer/histland/montgom/montgom.htm>, sourced July 2020



4. MITIGATION MEASURES

4.1. INTRODUCTION

- 4.1.1. This Section sets out the mitigation measures which are incorporated into the Development and primarily concentrates on the landscape proposals illustrated by the Landscape Masterplan (Appendix 2) and Illustrative Cross Sections (1 to 6) (Appendix 3). Reference is made to relevant aspects of the architectural design.
- 4.1.2. The photomontage views presented in the LVIA show proposed native woodland planting after c.10 years when trees will be c.6m to 8m high for illustrative purposes. As stated previously, during the operation phase, no allowance is given for the additional screening benefits offered by the proposed new planting identified by the Landscape Masterplan. Consideration is given to the screen bunds only. During the decommissioning phase, as proposed native woodland planting will remain in perpetuity, this will offer long term enhancement and mitigation for future employment uses at the Site.
- 4.1.3. No further mitigation measures other than those already outlined in this Section have been identified during the LVIA.

4.2. MITIGATION MEASURES INCORPORATED INTO THE DEVELOPMENT

Landscape Masterplan

- 4.2.1. The Landscape Masterplan has been devised to provide extensive mitigation as an integral part of the Development.
- 4.2.2. The adopted strategy has been informed by a holistic approach, taking in account the overall Buttington Quarry site, rather than being solely designed for the operational life of the Development. This is an important factor when considering the landscape proposals in the long term.
- 4.2.3. Key elements of the strategy include:
 - ◆ The **existing Buttington Brickworks geological SSSI** will not be affected by the Development;
 - ◆ **Retained mature woodland on the southern Site boundary** as part of the Development;
 - ◆ **Remnant faces** in the northern sector of the quarry will be restored;
 - ◆ A **comprehensive screen bund design** along the south-western and south-eastern boundaries will ensure that a high proportion of the ERF and also Laydown Area 4 remains hidden from view;



- ◆ **Extensive areas of native broadleaved woodland** will be established on the screen bunds and restored northern quarry slopes to provide visual and biodiversity enhancement in the long term. Proposed planting will strengthen the existing framework of woodland both within and adjacent to the Site;
- ◆ Provision for **detailed landscape treatment of the new access road** by creating areas of native broadleaved woodland together with open mosaic habitat and species-rich neutral grassland to the grass verges; and
- ◆ **SuDS** measures include a surface water attenuation pond together with amphibian wetland and peripheral habitat creation.

- 4.2.4. Appendix 3 includes the Illustrative Cross Sections (1 to 6).
- 4.2.5. The Sections demonstrate the landform changes required to facilitate the Development and aspects of the Site such as topography elsewhere, existing and proposed native woodland. They also illustrate the context of the Site to its immediate environs.
- 4.2.6. Sections 1 to 3 illustrate the footprint width of the ERF development base which will ensure that the much of the proposed ERF building and stack will be located within the large quarry void and effectively hidden from view outwith the Site. Whilst the arrangement of Site infrastructure including the Laydown Areas, car parking, yard area and other buildings will be screened by proposed landform changes and screen bunds (see Sections 1 to 4).
- 4.2.7. The existing screen bund adjacent to Sale Lane and proposed screen bund along Heldre Lane will provide effective screening along both routes and elsewhere within close range and is explored later in the LVIA. Illustrative Cross Sections 2 to 4 demonstrate the effectiveness of the screen bund adjacent to Sale Lane.
- 4.2.8. Sections 4 and 5 identify the location of the Buttington Brickworks geological SSSI which lies outwith the Site and will be unaffected by the Development.

Architectural Design

- 4.2.9. The Development incorporates a simplified building form and the selected cladding colours are designed to be sympathetic to the existing landscape setting and represent a positive design solution. More detailed information regarding the design process is provided in the Design and Access Statement.
- 4.2.10. The main landscape and visual considerations include:
- ◆ With regards to the landform and landuse of the Site. The ERF is **set on a north-east to south-west configuration and situated in the quarry void** in the central environs of the Site;
 - ◆ In terms of the wider landscape setting, **the ERF is generally seen within a landform background**, thus, with predominant land colour and hues. The scale of ERF building is appropriate and in balance with the large scale nature of the landscape;
 - ◆ The **proposed stack is bicolour to mitigate skyline views** where available;



- ◆ Particular care has been given to **consider potential views of the rooflines at the skyline**. The main ERF building features a graduated roofline to avoid a boxy appearance;
- ◆ The proposed cladding colour scheme is **designed to merge and not contrast with the landscape**. In addition, it intended to be regressive into views and not form a focus;
- ◆ The ERF is **well hidden from the environs of Trewern**. Where it is seen from more elevated locations, it is only the upper part of the ERF building and stack that is visible and is appropriate in scale. The Site is at some distance from other settlement areas such as Welshpool; and
- ◆ Careful consideration has been given to known sensitive receptors including views from **cultural heritage sites** such as Powis Castle and Garden together with views along **key tourist routes into Wales**. Such factors have influenced the siting of proposed built form and landscape proposals incorporated into the Landscape Masterplan.

4.2.11. Section 6 of the LVIA includes the visual impact assessment and assesses the Development. It also considers winter views from specific Viewpoint Locations and explores the proposed cladding colour scheme during this seasonal period.



5. EFFECTS ON LANDSCAPE CHARACTER AND DESIGNATIONS

5.1. INTRODUCTION

- 5.1.1. This Section includes an evaluation of the potential effects of the Development on the landscape character and landscape designations relevant to the principal study area.
- 5.1.2. For the purpose of this LVIA, direct effects on landscape character relate to those that alter aspects of the Site, for instance the removal of existing characteristic features or through the introduction of new elements. Indirect effects concern the perception of character in a wider sense and how it relates to the Site. The Methodology applied to assess landscape effects is provided in full in Appendix 1 and summarised in Section 2.
- 5.1.3. With reference to direct effects on the Shropshire Hills (outliers) NLCA No.18, the Development is not of a scale during any of the phases whereby it would notably modify any key characteristics due to the size and diversity of the NLCA (Figure L1). Broadleaved woodland is present on lower slopes and the Landscape Masterplan will feature new native woodland planting which will offer long term visual and biodiversity benefits. There will be no indirect effects on other NLCAs and NCAs within the principal study area for the reasons outlined above.
- 5.1.4. Landscape character at a more detailed level is classified through LANDMAP and The Shropshire Typology (2006). Guidance for the assessment of landscape effects has been provided through the LANDMAP Methodologies (NRW) and direction in the Adopted Powys Local Development Plan 2011 – 2026 (April 2018) and Landscape SPG (April 2019) by Powys County Council.
- 5.1.5. When reviewing this Section, reference should be made to Figure L1: Site Location and Landscape Character Classification (National Level), Figure L2: Landscape Designations and Figure L3: LANDMAP Visual and Sensory Aspect Areas (within 10km). The hatched areas on Figures L1 and L3 denote the ZTV as an overlay for reference purposes. Figures L5 and L6 demonstrate the detailed ZTV for the principal study area. The Landscape Masterplan is included in Appendix 2 with Illustrative Cross Sections (1 to 6) in Appendix 3.



5.2. MAIN SOURCES OF IMPACT

5.2.1. When considering landscape character, the main sources of change relate to:

- ◆ **During construction**, ground modelling to facilitate the ERF and the earthworks to complete the existing screen bund along Sale Lane and proposed screen bunds elsewhere within the Site along with native broadleaved tree planting shown on the Landscape Masterplan;
- ◆ **During operation**, the presence of the screen bunds and the ERF building including the energy recovery hall (46m high), waste reception hall (23m high) and stack (70m high). As part of mitigation measures, the choice of cladding colours is intended to be sympathetic to the landscape setting and uses prevailing natural shades of green and light brown hues; and
- ◆ **During decommissioning**, removal of built form and ground restoration.

5.2.2. As stated, during the operation phase, no allowance is made for the additional screening properties of the proposed native woodland planting shown on the Landscape Masterplan. Consideration is given during decommissioning, where it offers the prospect for long term **neutral** and **beneficial** effects.

5.3. DIRECT EFFECTS ON LANDSCAPE CHARACTER

5.3.1. LANDMAP provides information on landscape character at a regional scale and through the five Aspect layers.

5.3.2. At a regional scale, the Site is within the Mid-Wales Area Statement (2018). With regards to landscape change, the Development will be located within a greatly altered landscape due to quarry working rather than a greenfield site. It is identified for future employment uses through the Adopted Powys Local Development Plan 2011 – 2026 (April 2018).

5.3.3. At a more detailed level, the Site is located in the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area. It is classified as Moderate (local importance) in the LANDMAP Overall Evaluation. With regards to the Evaluation Matrix, the following applies: Scenic quality (High), Integrity (Moderate), Character (Moderate) and Rarity (Low). Reference is made to attractive views outwith the Aspect Area of the '*surrounding rolling and upland landscapes*'.

5.3.4. Table 5 presents the LANDMAP Evaluation and Recommendations together with B&A Site analysis. Although characteristics typical of the Aspect Area are found within the immediate vicinity including a pattern of agricultural fields (both arable and pasture) divided by hedgerows and small woodland blocks, important local variations occur within the Site. It includes a few distinctive attributes, notably the broad band of mature woodland on the southern Site boundary. Whereas, the majority of the Site represents a much changed landscape due to mineral extraction and currently includes typical features such as tracks, exposed mineral and a partially complete



screen bund. Overall, a **Low-Medium** sensitivity has been applied to the Site by B&A.

- 5.3.5. The area encompassing the proposed ERF building and stack will be sited in the central environs of the Site within a quarry void. During the construction phase, the Development will require necessary ground modelling and earthworks to take place (see Appendix 3). The screen bund adjacent to Sale Lane will be completed. Along with other proposed screen bunds, this will be grass seeded and planted with native woodland trees as part of mitigation measures. Whilst during the operation phase, it will introduce new elements namely, the proposed ERF building and stack. The colours of the aforementioned buildings will be appropriate for the landscape setting.
- 5.3.6. Decommissioning will involve the removal of built form and ground restoration. The proposals have the potential to provide **neutral** or potentially, **beneficial** effects. As new native woodland planting matures, it will provide long term enhancement and mitigation for future employment uses at the Site. Whilst the Landscape Masterplan also incorporates areas of open mosaic habitat and species-rich neutral grassland. SuDS measures include a surface water attenuation pond together with amphibian wetland and peripheral habitat creation.
- 5.3.7. At a Site level, during construction, there will be a **Medium to Large** magnitude of impact and a **Moderate (neutral)** significance of effect. In the operation phase, there will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect. The decommissioning phase will result in a **Medium to Large** magnitude of impact and **Moderate (neutral)** significance of effect overall but with the potential for long term **beneficial** effects as set out above. This could lead to a **Small** magnitude of impact and a **Minor (beneficial)** significance of effect.



Table 5: Site Related LANDMAP Aspect Areas, Site Analysis and Application to the Site/Development

ASPECT AREAS: SUMMARY DESCRIPTION/EVALUATION/RECOMMENDATIONS			SITE ANALYSIS/APPLICATION TO THE SITE/DEVELOPMENT
Geological Landscape: MNTGMGL697 Hope			
What is the geographical and topographical character of this area?	Forms the lower part of the scarp face of Long Mountain. Generally moderately steep, but levelling out at base. Mainly developed in Wenlock (Middle Silurian) mudrocks, with minor Llandovery (Lower Silurian) at base. Cwmms present with probably glacial infill.		
Evaluation	Value	Outstanding (Includes nationally important geology (Buttington Brickworks SSSI).)	
	Condition	Good (Dominantly rural area with limited development.)	
	Trend	Constant (Dominantly rural area with limited / no significant development.)	
Evaluation Matrix	Research Value		<p>Site Location: The Site is located on the western edge of the MNTGMGL697 Hope Geological Landscape Aspect Area which continues to the east c.2.8km and south-west c.5km.</p> <p>Matters Raised in Aspect Area Evaluation/Recommendations: Reference is made to the Buttington Brickworks SSSI.</p> <p>B&A Site Analysis: The Site represents a small area when compared to the extent of the Aspect Area. The Buttington Brickworks SSSI is located outwith the Site and will not be affected by the Development. B&A agrees with the overall evaluation of Outstanding in terms of the immediate surroundings of the Site. However, local variations occur within the Site which represents an altered landscape due to quarrying activities.</p>
	Educational Value		
	Historical Value		
	Rarity/Uniqueness	Outstanding (Includes nationally important geology - Buttington Brickworks SSSI)	
	Classic Example		
Overall Evaluation	Justification of overall evaluation	Includes nationally important geology (Buttington Brickworks SSSI). Generally Appropriate	
Recommendations	Existing management	Ensure that no significant geological or geomorphological features are lost or damaged and that the SSSI is maintained in favourable condition by implementation of a management plan.	
	Principal management	Long Term (Ensure that no significant geological or geomorphological features are lost or damaged.) Immediate (Ensure SSSI is maintained in favourable condition by implementation of a management plan.)	
	Guideline	Medium Term (No contemporary geological map available: encourage systematic geological mapping of the area to properly document geological character.)	
Historic Landscape: MNTGMHL310 Buttington/Middletown			
Summary Description/Key Patterns and Elements	Mixed, irregular fieldscapes probably of medieval to post-medieval origin on western and northern flanks of Long Mountain. The area is crossed by the early medieval Offa's Dyke. Dispersed farms and cottages of medieval to post-medieval origin. Small nucleated church settlements possibly of medieval origin at Buttington and Middletown.		
Evaluation	Condition	N/A	<p>Site Location: The Site is on the western edge of the Aspect Area which extends to the north-east (c.5km), east (c.2.7km) and south-west (c.4.7km) within the principal study area.</p> <p>Matters Raised in Aspect Area Evaluation/Recommendations: The pattern of mixed, irregular fields are archetypal of the Aspect Area. Much of the description applies to characteristics outwith the Site namely Offa's Dyke and settlements.</p> <p>B&A Site Analysis: The Site represents a small area when compared to the extent of the Aspect Area. B&A agrees with the overall evaluation of High in terms of the immediate surroundings of the Site. However, local variations occur regarding the Site which represents an altered landscape due to quarrying activities.</p>
	Value	High	
	Trend	Constant	
	Integrity	Moderate (See overall justification.)	
	Potential	Outstanding (See overall justification.)	
Evaluation Matrix	Rarity	High (See overall justification.)	
	Survival	High (See overall justification.)	
	Condition	Moderate (See overall justification.)	
Overall Evaluation		High	



ASPECT AREAS: SUMMARY DESCRIPTION/EVALUATION/RECOMMENDATIONS		SITE ANALYSIS/APPLICATION TO THE SITE/DEVELOPMENT
Justification of overall evaluation	Area of irregular fields occupying the lower west facing slopes of Long Mountain to the east of the Severn. Predominantly medieval and later farms and agriculture. Also containing a section of Offa's Dyke, potentially Saxon settlement of Buttington (and its possible battle site) and the later village of Middleton. Scores well because of its complex content.	
Recommendations	N/A	
Landscape Habitats: MNTGMLH033		
Summarise the key features that define this area's biodiversity character	This area is made up of pasture and arable fields along the flat valley floor adjacent to the river Severn. The mixed patterned of grass and arable fields together with small ribbons of woodland which follow streams and the river itself give an important mosaic to the landscape which is enhanced by the occasional unimproved fields continuing interesting native species such as Gwaun Bryn Pasture SSSI. This mosaic is also important for a wide range of bat and bird species. Of great significance to this area is the which runs from Llanyrnach to Freestone Locks near Newtown. Montgomery Canal is of special interest because it supports aquatic, emergent and marginal plant communities of exceptional richness. Including a large population of the internationally rare and threatened floating water plantain <i>Luronium natans</i> and a several other rare and scarce water plants. An important aquatic invertebrate assemblage is also present.	<p>Site Location: The Site is situated in the central environs of the Aspect Area. It extends to c. 1km in all directions from the Site and continues north (c. 10km), north-east (c. 4.9km), south (c. 15km) and west (c. 2.2km).</p> <p>Matters Raised in Aspect Area Evaluation/Recommendations: Much of the description and the recommendations apply to the environs of the River Severn.</p> <p>B&A Site Analysis: B&A agrees with the overall evaluation of High in terms of the immediate surroundings of the Site which primarily refer to the field pattern. The Site signifies a small area when compared to the extent of the Aspect Area. The majority of the Site represents an altered landscape due to quarrying activities. A tract of mature woodland is present along the southern Site boundary.</p> <p>The Landscape Masterplan includes proposed areas of native woodland planting which will strengthen the existing framework of woodland both within and adjacent to the Site in the long term. SuDS measures comprise a surface water attenuation pond together with amphibian wetland and peripheral habitat creation. Indicative locations are identified on the Landscape Masterplan. Landscape treatment associated with the new access road will include native woodland planting together with open mosaic habitat and species-rich neutral grassland to the grass verges.</p>
Evaluation	<p>Value</p> <p>High (Although the area is mainly improved and arable land there are some very significant features in the area including the river Severn, and the Montgomery canal which is of special interest because it supports aquatic, emergent and marginal plant communities of exceptional richness, including a large population of the internationally rare and threatened floating water plantain <i>Luronium natans</i> and a several other rare and scarce water plants. There are also some traditional species-rich hay meadows in the area. The existence of hedges and mixed land use all contribute to this areas richness and its High value.)</p> <p>Condition</p> <p>Good (the information and air photography suggests a good condition although a site visit would be needed to confirm this.)</p> <p>Trend</p> <p>Constant</p>	
Evaluation Matrix	Priority Habitats	High (Although the area is mainly improved and arable land there are some very significant features in the area including the river Severn, and the Montgomery canal there are also some traditional species-rich hay meadows in the area. The existence of hedges and mixed land use all contribute to this areas richness and its High.
	Significance	High (Area contains small but extremely important example of certain habitats and a mosaic of land use.)
	Opportunity	High (Replanting and managing hedges would significantly enhance the area.)
	Expansion rates	Unassessed
	Sensitivity	Unassessed



ASPECT AREAS: SUMMARY DESCRIPTION/EVALUATION/RECOMMENDATIONS				SITE ANALYSIS/APPLICATION TO THE SITE/DEVELOPMENT	
Overall Evaluation	Connectivity/Cohesion	High (The area is tied together by the river and canal together with hedges where they exist.)			
	Habitat Evaluation	High (A number of significant habitats occur from traditional hay meadows to the Montgomery canal)			
	Importance for key species	High (Very large numbers of important species are recorded from the area.)			
		High			
Justification of overall evaluation		(Although the area is mainly improved and arable land there are some very significant features in the area including the river Severn, and the Montgomery canal which is of special interest because it supports aquatic, emergent and marginal plant communities of exceptional richness, including a large population of the internationally rare and threatened floating water plantain Luronium natans and a several other rare and scarce water plants. There are also some traditional species-rich hay meadows in the area. The existence of hedges and mixed land use all contribute to this areas richness and its High value.)			
Recommendations	Existing management	Generally Appropriate			
	Principal management recommendations	Where the hedges are not stockproof in their own right and would benefit by maintenance work and replanting of gaps.			
	Guideline	Immediate (Manage and replant gaps in hedges), Medium Term (Manage a buffer zone alongside the river edge), Long Term (Replant woods especially alongside streams.)			
	Visual and Sensory: MNTGMS370 Crewgreen to Forden Hill and Scarp				
Summary Description	Forms the topographical transition between the upland peaks of Breidden Hill and Long Mountain and the floodplain of the River Severn. Largely west facing and typified by a patchwork of grazed and some low intensity arable farming with managed hedgerows, occasional patches of woodland lie along stream courses and in lower lying areas.			<p>Site Location: The Site is located on the western edge of the MNTGMS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area. It extends to the north-east (c.6km), east (c.2.7km) and south-west (c. 10km).</p> <p>Matters Raised in Aspect Area Evaluation/Recommendations: LANDMAP highlights the transitional nature of the Aspect Area. Long term recommendations includes the restoration of quarries and boundary vegetation.</p> <p>B&A Site Analysis: The Site represents a small area when compared to the extent of the Aspect Area. In the immediate vicinity there is a pattern of agricultural fields (both arable and pasture) divided by hedgerows and small woodland blocks. The majority of the Site is an altered landscape due to quarrying activities. However, there is a tract of mature woodland is present along the southern Site boundary. The area encompassing the ERF building and stack will be sited in the central environs of the Site within a quarry void.</p> <p>As part of the Development, the screen bund adjacent to Sale Lane will be completed and along with other proposed screen bunds, it will be grass seeded and planted with native woodland trees as shown on the Landscape Masterplan. The proposed areas of native woodland planting will strengthen the existing framework of woodland both within and adjacent to the Site in the long term. SuDS measures comprise a surface water attenuation pond together with amphibian wetland and peripheral habitat creation. Indicative locations are identified on the Landscape Masterplan. Landscape treatment associated with the new access road will include</p>	
Evaluation Matrix	Scenic quality	High (N/A)			
	Integrity	Moderate (N/A)			
	Character	Moderate (N/A)			
	Rarity	Low (N/A)			
Overall Evaluation	Moderate (N/A)				
Justification of overall evaluation	Typical example of farming practices and fields patterns displaying hedgerow boundaries and woodland blocks in lower lying areas that could benefit from enhancement through additional planting along boundaries. = Moderate.				
	Conserved	Balance between mixed farmland practices to maintain field pattern distribution			
	Enhanced	Increase proportion of hedgerow trees within field boundaries			
	Changed	Expansion of quarrying/excavation works and associated development over adjacent farmland			
Recommendations	Conserved	N/A			
	Enhanced	Hedgerow boundaries to improve diversity of vegetation / management type			
	Changed	N/A			



ASPECT AREAS: SUMMARY DESCRIPTION/EVALUATION/RECOMMENDATIONS				SITE ANALYSIS/APPLICATION TO THE SITE/DEVELOPMENT
	Principal management recommendation	Maintain as existing		native woodland planting together with open mosaic habitat and species-rich neutral grassland to the grass verges.
Recommendations	Guideline	Long Term (Maintain balance between different farming practices), Medium Term (Limit expansion of quarrying works at Criglon Quarry), Medium Term (Limit expansion of clay extraction at Cefn Brckworks) and Long Term (Restoration of quarried and clay extraction works to emulate existing)		
	Existing management remarks	Generally Appropriate		
	Existing management remarks	Mixture of grazing and limited arable farming with some woodland patches throughout the aspect area		
	Monitoring (Does this area have a special or functional link with an adjacent area?)	Yes (Transitional landform between Breidden Hill, Long Mountain and the River Severn)		
Cultural Landscape Services: MNTGMCLS044 Crewgreen to Forden Hill and Scarp				
Night Time Light Pollution		Slight		Site Location: The Site is located on the western edge of the MNTGMCLS044 Crewgreen to Forden Hill and Scarp Cultural Landscape Services Aspect Area. It extends to the north-east (c.6km), east (c.2.7km) and south-west (c.10km) Matters Raised in Aspect Area Assessment: The Cultural Landscape Services Aspect layer summarises some of the main facets of the other LANDMAP layers. B&A Site Analysis: The LANDMAP Methodology Visual and Sensory 2016 defines Slight with regards to Night Time Light Pollution as 'Few sources of light such as sparsely settled areas such as scattered farms' (page 24). With regards to the Wales Tranquil Area assessment (Tranquil Areas Wales 2009), the corridor along the A458 close to the junction with Heldre Lane is within Zone B and includes the Site. ³⁴
Wales Tranquil Area assessment		Zone B significant disturbance: Zone C some disturbance: Undisturbed: Urban (Mosaic of: Undisturbed, Zone C, Zone B).		
International Dark Sky Reserve or Dark Sky Reserve		No		
Evaluation	Visual and Sensory Landscape	Moderate		
	Geological landscape	Mosaic of Moderate, High or Outstanding		
	Landscape Habitats	Over 75% High or outstanding		
	Historic Landscape	Over 75% High or outstanding		

³⁴ Lle Geo-Portal, <http://lle.gov.wales>, sourced July 2020



5.4. INDIRECT EFFECTS ON LANDSCAPE CHARACTER

Indirect Effects on the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area

- 5.4.1. In principal, the Development will have an indirect effect on the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area which as noted, is classified as Moderate (local importance). Monitoring of the Aspect Area draws attention to the '*Transitional landform between Breidden Hill, Long Mountain and the River Severn*'.
- 5.4.2. The Aspect Area extends to the north-east (c.6km), east (c.2.7km) and south-west (c.10km) of the Site. Viewpoint Location 1 to 4, 7, 9 to 14, 34 and 35 are within this Visual and Sensory Aspect Area. A **Medium** sensitivity has been applied to the Aspect Area by B&A (outwith the Site).
- 5.4.3. The ZTV broadly extends to the east and south within close range and to the north-east to medium range and is absent apart from a limited area to the long range (Figure L3).
- 5.4.4. Indirect effects will be limited overall due to the current context of the Site, the nature of the Development and incorporated mitigation measures. During construction, there will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect. During operation, at a close range, there will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect. At a medium range, this will reduce to a **Small** or potentially, **Very Small** magnitude of impact and a **Minor (neutral)** significance of effect. During the decommissioning phase, there will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect overall. There is the potential for some long term **beneficial** effects to occur due to proposed native woodland planting as it matures, notably within close range. This has the potential to result in a **Minor (beneficial)** significance of effect within this distance range.

Indirect Effects on Other Visual and Sensory Aspect Areas Within the Principal Study Area

- 5.4.5. To assess indirect effects on other Visual and Sensory Aspect Areas within the principal study area, B&A has considered each Aspect Area in turn using the LANDMAP Evaluation Matrix and Overall Evaluation.
- 5.4.6. Table 6 includes the LANDMAP results and gives an overview of the Aspect Area in the principal study area along with the B&A evaluation, assigned sensitivity and assessment of effects. Indirect landscape effects are evaluated where the Development will be visible and the Viewpoint Locations assessed in the LVIA are listed in the same table. The hatched areas on Figure L3 denote the ZTV as an overlay for reference purposes. It is shown on in more detail on Figures L5 and L6. The defined ZTV will be reduced given that it is founded on landform and key areas of existing woodland digitised from OS data.



5.4.7. There will be **No Impact** during all phases in relation to the following Visual and Sensory Aspect Areas within long range (beyond 6km) to the north-west, south and south-west of the Site:

- ❖ MNTGMVS714 Vyrnwy Rolling Lowlands (c.7km north-west);
- ❖ MNTGMVS736 Bwlch-y-cibau Lowlands (c.10km north-west);
- ❖ MNTGMVS962 Llanfyllin Mosaic South (c.10.7km north-west);
- ❖ MNTGMVS720 Berriew (c.11.5km south-west);
- ❖ MNTGMVS722 Garthmyl Rolling Farmland (c.12.4km south-west);
- ❖ MNTGMVS745 Garthmyl (c.12.7km south);
- ❖ MNTGMVS651 Rhiw (c.13.3km south-west);
- ❖ MNTGMVS899 Tregynon Rolling Hills (c.13.7km south-west);
- ❖ MNTGMVS434 Montgomery Mosaic Rolling Farmland (c.13.8km south); and
- ❖ MNTGMVS946 Llandyssil Hill and Scarp Grazing (c.14.4km south-west).

Table 6: Summary of Indirect Effects on Visual and Sensory Aspect Areas Within the Principal Study Area

LANDMAP	B&A EVALUATION (LANDSCAPE SENSITIVITY) AND ASSESSMENT OF EFFECTS
Immediate vicinity (within 500m)	
MNTGMVS650 River Severn Flood Plain (c.300m north) (Viewpoint Location 8, 20 to 22, 26, 28 and 30)	
<p>Aspect Area Summary: The Aspect Area is described as a significant open valley with a medium to large field pattern and a varied settlements. There is a negative influence due to urban areas and road corridors. Attractive views include of Breidden Hill to the north and adjacent areas of higher wooded/mosaic farmland and hill slopes. Reference is made to the latter regarding a special/functional link with an adjacent area.</p> <p>LANDMAP Evaluation and Overall Evaluation: Scenic Quality and Integrity is categorised as Moderate with Character and Rarity as High. The Overall Evaluation is Moderate.</p>	<p>Overview of the Aspect Area in the Principal Study Area: The Aspect Area applies to the Severn Valley and broadly extends to the north and south-west of the Site. It comprises agricultural fields at a low elevation and the main transport corridors (road and rail). The Aspect Area is within the immediate vicinity of the Site (north and west) and continues to c.2km north-east (close range), c.9.6km north (long range) and c.15km (long range). B&A has assigned a Medium landscape sensitivity to this Aspect Area.</p> <p>The ZTV (Figure L3) applies to the majority of the Aspect Area. However, effects will apply to close and medium range, whilst long range effects will be greatly reduced.</p> <p>During Construction: There will be a Medium magnitude of impact and a Moderate (neutral) significance of effect.</p> <p>During Operation: At a close range, there will be a Medium magnitude of impact and a Moderate (neutral) significance of effect. At a medium range, there will be a Very Small magnitude of impact and a Minor (neutral) significance of effect.</p> <p>During Decommissioning: There will be a Medium magnitude of impact and a Moderate (neutral) significance of effect.</p>
Close range (500m to 3km)	
MNTGMVS301 Long Mountain (c.950m south) (Viewpoint Location 5 and 6)	
<p>Aspect Area Summary: The Aspect Area is described as an area of managed upland grazing. The lack of treecover provides expansive views including east towards Long Mynd and west of the Severn Valley and distant upland hills. Reference is made to the strong visual links with Breidden Hill and the Severn Valley.</p> <p>LANDMAP Evaluation and Overall Evaluation: LANDMAP categorises Scenic Quality as Moderate and Integrity, Character and Rarity as High. The Overall Evaluation is High.</p>	<p>Overview of the Aspect Area in the Principal Study Area: The Aspect Area is within close range to the south and the lower slopes (around Helder Hill and Oak Plantation) are within the principal study area. There is a limited area south at a medium range. However, the majority of the Aspect Area is outwith the principal study area. The presence of Long Mountain is an important visual feature and provides a backdrop for easterly views. Expansive views are available. B&A has assigned a High landscape sensitivity to this Aspect Area.</p> <p>The ZTV (Figure L3) applies to a small area c.1.6km south-east (close range) and a restricted area c.2.9km south (medium range).</p> <p>During Construction: There will be a Small magnitude of impact and a Moderate (neutral) significance of effect.</p>



LANDMAP	B&A EVALUATION (LANDSCAPE SENSITIVITY) AND ASSESSMENT OF EFFECTS
	<p>During Operation: There will be a Small magnitude of impact and a Moderate (neutral) significance of effect.</p> <p>During Decommissioning: There will be a Small magnitude of impact and a Moderate (neutral) significance of effect.</p>
MNTGMVS612 Guilsfield Rolling Farmlands (c.1.8km north-west) (Viewpoint Location 19, 24 and 29)	
<p>Aspect Area Summary: The Aspect Area is described as an extensive area of rolling hillsides and pasture land with rounded hill tops. Attention is drawn to attractive views towards upland areas. There is limited intrusion by modern development.</p> <p>LANDMAP Evaluation and Overall Evaluation: LANDMAP categorises Scenic Quality, Integrity and Character are categorised as High. Rarity is recorded as Moderate. The Overall Evaluation is High.</p>	<p>Overview of the Aspect Area in the Principal Study Area: The northern, eastern and southern periphery falls within the principal study area. However, the majority of the Aspect Area is outwith. The eastern environs are within close range (c.1.8km). The Aspect Area offers wide ranging views. Whilst the presence of rolling hills and large woodland tracts is an important visual feature and provides a backdrop for westerly views. B&A has assigned a High landscape sensitivity to this Aspect Area.</p> <p>The ZTV (Figure L3) applies to small areas to c.2.8km north-west (close range) and to the north towards c.5km (medium range). In addition, there are isolated zones beyond close range to the south-west.</p> <p>During Construction: There will be a Small magnitude of impact and a Moderate (neutral) significance of effect.</p> <p>During Operation: There will be a Very Small magnitude of impact and a Minor (neutral) significance of effect.</p> <p>During Decommissioning: There will be a Small magnitude of impact and a Moderate (neutral) significance of effect.</p>
MNTGMVS620 Breidden Hill (c.2.2km north-east) (Viewpoint Location 16 to 18)	
<p>Aspect Area Summary: Reference is made to the well wooded lower slopes and the presence of Criggion Quarry on its western flank. There are open panoramic views of the Severn Valley and upland areas from the summit. A strong visual link is noted between Breidden Hill and the Severn Valley.</p> <p>LANDMAP Evaluation and Overall Evaluation: Scenic Quality, Character and Rarity are categorised as High. Integrity is Low. The Overall Evaluation is Moderate.</p>	<p>Overview of the Aspect Area in the Principal Study Area: A broad arc (clockwise) south-east to the north-west of Breidden Hill is within the principal study area, whilst the northern part of Breidden Hill is outwith. The presence of quarrying does not greatly influence the Aspect Area in the principal study area and Breidden Hill provides expansive views towards the Site and is an important visual feature as a backdrop for views. B&A has assigned a High landscape sensitivity to this Aspect Area.</p> <p>The ZTV (Figure L3) applies to a number of isolated areas of Breidden Hill including the summit and on the lower slopes. The majority of Breidden Hill is outwith the ZTV.</p> <p>During Construction: There will be a Very Small magnitude of impact and a Minor (neutral) significance of effect.</p> <p>During Operation: There will be a Very Small magnitude of impact and a Minor (neutral) significance of effect.</p> <p>During Decommissioning: There will be a Very Small magnitude of impact and a Minor (neutral) significance of effect.</p>
MNTGMVS762 Welshpool (c.2.5km south-west) (Viewpoint Location 23)	
<p>Aspect Area Summary: There is a distinctive well maintained market town centre with a range of different amenities near the livestock market. This includes a mixture of residential, commercial and light industrial development together with business park at Buttington Cross. Attractive views include to the east towards Long Mountain and Breidden Hill.</p> <p>LANDMAP Evaluation and Overall Evaluation: Scenic Quality, Character and Rarity are classified as High and Integrity is Moderate. The Overall Evaluation is High.</p>	<p>Overview of the Aspect Area in the Principal Study Area: The Aspect Area is within close range to the south-west of the Site and the majority of the Aspect Area is within the principal study area. The northern and eastern environs of the town include industrial estates and other commercial activity. This includes the Buttington Cross Enterprise Park and the Welshpool Livestock Sales building in the north and the Severn Farm Industrial Estate and the Hanfaes Lane Industrial Estate to the east. The main transport corridors (road and rail) pass through the town. B&A has assigned a Medium landscape sensitivity to this Aspect Area.</p> <p>The ZTV (Figure L3) applies to most of the Aspect Area apart from areas in the central environs and on the south-western edge.</p> <p>During Construction: There will be a Small magnitude of impact and a Minor-Moderate (neutral) significance of effect.</p> <p>During Operation: There will be a Very Small magnitude of impact and a Minor (neutral) significance of effect.</p> <p>During Decommissioning: There will be a Small magnitude of impact and a Minor-Moderate (neutral) significance of effect.</p>
Medium range (3km to 6km)	
MNTGMVS549 Ardleen (c.4.9km north) (No Viewpoint Location)	
<p>Aspect Area Summary: The settlement is located along the A483. Reference is made to attractive views to the east and west.</p> <p>LANDMAP Evaluation and Overall Evaluation: Scenic Quality, Integrity and Character is categorised as Low and Rarity is classified as Moderate. The Overall Evaluation is Low.</p>	<p>Overview of the Aspect Area in the Principal Study Area: The Aspect Area consists of two separate areas along the A483 and both are located within the principal study area at medium range. B&A has assigned a Medium landscape sensitivity to this Aspect Area as it constitutes a village settlement and includes a section of the Montgomery Canal. Viewpoint Location 28 is to the south of Ardleen from the A483.</p> <p>The ZTV (Figure L3) applies to the entire Aspect Area.</p>



LANDMAP	B&A EVALUATION (LANDSCAPE SENSITIVITY) AND ASSESSMENT OF EFFECTS
	<p>During Construction: There will be a Negligible magnitude of impact and resultant significance of effect (neutral).</p> <p>During Operation: There will be a Negligible magnitude of impact and resultant significance of effect (neutral).</p> <p>During Decommissioning: There will be a Negligible magnitude of impact and resultant significance of effect (neutral).</p>
Long range (beyond 6km)	
MNTGMVS819 Castle Caereinion Farmlands (c.8km south-west) (Viewpoint Location 25 and 27)	
<p>Aspect Area Summary: The Aspect Area includes attractive views across ridges of agricultural fields.</p> <p>LANDMAP Evaluation and Overall Evaluation: Scenic Quality and Integrity are categorised as High with Character and Rarity as Moderate. The Overall Evaluation is Moderate.</p>	<p>Overview of the Aspect Area in the Principal Study Area: The Aspect Area falls within the south-western periphery of the principal study area at a long range (c.8km). Viewpoint Location 25 and 27 demonstrate the potential views from this Aspect Area. They also have glimpsed views of lowland areas including the Site and more distant hill formations such as Long Mountain, Breidden Hill, Moel y Golf and Middletown Hill within the principal study area and beyond towards the Shropshire Plain. B&A has assigned a Medium landscape sensitivity to this Aspect Area.</p> <p>The ZTV (Figure L3) applies to isolated areas primarily in the north-eastern and central environs of the Aspect Area.</p> <p>During Construction: There will be a Negligible magnitude of impact and resultant significance of effect (neutral).</p> <p>During Operation: There will be a Negligible magnitude of impact and resultant significance of effect (neutral).</p> <p>During Decommissioning: There will be a Negligible magnitude of impact and resultant significance of effect (neutral).</p>
MNTGMVS513 Llanymynech Hill (c.10.8km north) (Viewpoint Location 31)	
<p>Aspect Area Summary: The Aspect Area features a low steep sided hill which rises up from lowland areas and evidence of quarry working. Attractive views include the Severn Valley and more distant upland areas. The explanatory text for Scenic Quality refers to the good views from the summit of Llanymynech Hill of both the Severn Valley and Breidden Hill.</p> <p>LANDMAP Evaluation and Overall Evaluation: Scenic Quality, Character and Rarity are categorised as Moderate and Integrity is Low. The Overall Evaluation is Low.</p>	<p>Overview of the Aspect Area in the Principal Study Area: The Aspect Area falls within the northern edge of the principal study area at a long range (c.10.8km). The evidence of quarry working does not greatly influence the Aspect Area in the principal study area and Llanymynech Hill provides panoramic views encompassing the Site. B&A has assigned a Medium landscape sensitivity to this Aspect Area.</p> <p>A review of the ZTV (Figure L5) showed that it applies to the majority of the Aspect Area.</p> <p>During Construction: There will be a Very Small magnitude of impact and a Minor (neutral) significance of effect.</p> <p>During Operation: There will be a Negligible magnitude of impact and resultant significance of effect (neutral).</p> <p>During Decommissioning: There will be a Very Small magnitude of impact and a Minor (neutral) significance of effect.</p>
MNTGMVS875 Llanfyllin Mosaic North (c.11.2km north) (Viewpoint Location 33)	
<p>Aspect Area Summary: The Aspect Area features rolling hill and scarp mosaic farmland and includes attractive views over surrounding lowland farmland.</p> <p>LANDMAP Evaluation and Overall Evaluation: Scenic Quality, Integrity and Character are classified as High and Rarity as Moderate. The Overall Evaluation is High.</p>	<p>Overview of the Aspect Area in the Principal Study Area: A broad band falls within the north-western edge of the principal study area at a long range. The Aspect Area provides extensive views and forms part of the backdrop for westerly views. B&A has assigned a High landscape sensitivity to this Aspect Area.</p> <p>A review of the ZTV (Figure L5) showed that it applies to isolated areas at a higher elevation.</p> <p>During Construction: There will be a Very Small magnitude of impact and a Minor (neutral) significance of effect.</p> <p>During Operation: There will be a Negligible magnitude of impact and resultant significance of effect (neutral).</p> <p>During Decommissioning: There will be a Very Small magnitude of impact and a Minor (neutral) significance of effect.</p>

Indirect Effects on Landscape Types

- 5.4.8. Landscape Types identified in The Shropshire Landscape Typology (2006) broadly apply to the eastern and northern parts of the principal study area beyond c.2.6km and c.10km respectively. The ZTV (Figure L5) has been reviewed and broadly applies to the following LTs:

◆ **Pasture Hills LT:** c.2.7km east (close range) and c.11.9km north-west (long range);



- ◆ **Settled Pastoral Farmlands LT:** c.2.6km east (close range) and c.3.5km east (medium range) and c.10.3km north (long range) (see Viewpoint Location 15);
- ◆ **Wooded Hills and Farmlands LT:** c.14.1km north (long range) (see Viewpoint Location 32);
- ◆ **Upland Smallholdings LT:** c.11.3km north (long range); and
- ◆ **Lowland Moss LT:** (c.9.5km north and a separate area c.11.3km north) (long range).

- 5.4.9. There will be a **Negligible** magnitude of impact and resultant significance of effect (**neutral**) during all phases with regards to the above LTs.
- 5.4.10. There will be **No Impact** in relation to the Enclosed Lowland Heaths LT (c.6.6km north-east), Principal Timbered Farmlands LT (c.13.3km north) and Timbered Plateau Farmlands LT (c.14.7km north).

5.5. CUMULATIVE EFFECTS

- 5.5.1. Cumulative effects have been considered in relation to large scale commercial development such as warehouses along the main road network (e.g. A458 and A483) and on the edge of settlements, namely at Buttington and Welshpool. The Site is sufficiently separate from existing development which is also demonstrated by the photographs used for the Visual Impact Assessment in Section 6. The Development will not result in **adverse** cumulative effects.

5.6. LANDSCAPE CAPACITY

- 5.6.1. The majority of the Site is an altered landscape due to quarrying activities. As such, it is not a natural landscape in the context of the wider character and it demonstrates only a limited range of the distinctive attributes of the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area.
- 5.6.2. Furthermore, the Site lies within a broad area where infrastructure, housing and industrial development etc. have either altered or removed key characteristics of landscape value. Therefore, some variation can take place without necessarily undermining the basis of the Aspect Area. Therefore, a **Medium** capacity has been assigned by B&A (i.e. a landscape which could accommodate change in certain circumstances).
- 5.6.3. In this instance, consideration must be given to the Site location, current situation, topographic context and comprehensive design scheme as part of the Development. Of particular relevance is the Landscape Masterplan which will incorporate the wider environs of the existing quarry.
- 5.6.4. Taking the above into account, the following is of note:
- ◆ During **construction**, substantial areas of native woodland planting will be established on a series of new screening embankments (bunds). The broad band of mature woodland on the southern Site boundary will be retained;



- ◆ During **operation**, the Development will introduce new elements namely, the proposed ERF building and stack which will feature appropriate colour cladding for the landscape setting; and
- ◆ During **decommissioning**, the proposed native woodland planting shown on the Landscape Masterplan will mature and provide long term enhancement and mitigation for future employment uses at the Site.

- 5.6.5. In conclusion, the identified effects are not overbearing upon the current features of landscape value or in visual terms.
- 5.6.6. There is sufficient capacity within the Aspect Area to enable the Development without significant or overriding **adverse** effects to both the character and value of the adjoining landscape. In the case of new native woodland planting, such effects are more likely to offer a **beneficial** contribution notably within close range in the Aspect Area.



5.7. EFFECTS ON LANDSCAPE DESIGNATIONS

- 5.7.1. The Site is not located in a statutory or non-statutory landscape designation (Figure L2). Table 7 details the assessment of effects for the landscape designations identified in Appendix 1 (Table 1A). The hatched areas on Figure L2 denote the ZTV as an overlay for reference purposes. It is shown on in more detail on Figures L5 and L6 and has been reviewed.
- 5.7.2. Further to the above, there are a number of Listed Buildings within c.2km of the Site and the nearest are just beyond c.1km within close range:
- ◆ **Middle Heldre Farmhouse, Grade II (c.1.2km east):** The ZTV review indicates that the stack might be visible from the property which includes a farmhouse and large agricultural buildings. Fieldwork and Site assessment identified localised vegetation along Heldre Lane and more restricted views towards the Site when compared to the Severn Valley to the south which forms part of the setting. There will be **No Impact** due to the Development;
 - ◆ **Buttington Old Hall Farmhouse, Grade II (c.1.3km south-west):** Outwith the ZTV and there will be **No Impact** due to the Development; and
 - ◆ **Trewern Hall, Grade II* (c.1.3km north):** The ZTV review indicates that there are potential views of the ERF building and stack from the vicinity of Trewern Hall. The property is arranged on a north-west to south-east alignment and includes areas of mature vegetation immediately to the south. There is the potential for some limited views of crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF during construction and decommissioning. In addition, views of the ERF building and stack against the skyline during operation will be available. Direct views of the lower parts of the proposed built form will be limited by intervening vegetation outwith the Site. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. There could be a **Very Small** magnitude of impact and a **Minor (adverse)** significance of effect for residents (upper floor windows) during the all phases (worst case scenario).



Table 7: Landscape Designations and Assessment of Effects

DESIGNATION (REFERENCE/NAME)	DISTANCE AND DIRECTION (RANGE)	WITHIN THE ZTV?	ASSESSMENT OF EFFECTS
National Trust			
Powis Castle and Garden	c.6km south-west (medium range)	Yes, limited area	Field work undertaken as part of the LVIA established that the main aspect across the Severn Valley is eastwards whereas, the Site is located to the north-east. There are limited points within the garden from terracing and views from Powis Castle are constrained in part due to the main viewing alignment to the east. During all phases, there will be a Negligible magnitude of impact and resultant significance of effect (neutral). Viewpoint Location 24 demonstrates a view from the upper garden terrace on the north-eastern side of Powis Castle. B&A has been informed by Powys County Council that a planning application has been received to open up the east garden of Powis Castle to the public. On the basis of information received, B&A consider that the Viewpoint Location included in this LVIA and assessment to be a rigorous choice.
Register of Parks and Gardens of Special Historic Interest in Wales (CADW) and Register of Parks and Gardens of Special Historic Interest in Wales Essential Settings (CADW) (identified in the principal study area)			
(1) PGW (Po) 53 (POW) Maesfron (Grade II)	c.1.6km north-east (close range)	Yes	The property and gardens occupy an elevated area to the north of the A458. It includes south-facing terraces and provides panoramic views to the south-east of the Long Mountain. The Site forms part of the wider setting to the south-west of Trevern. South-westerly views from the gardens may be constrained by nearby built form within Trevern, mature vegetation and localised topography. Viewpoint Location 9 is from the A458 at Trevern and is a representative view from upper floor windows (for residents) at Maesfron Hall. Grade II is defined to be of special interest (CADW) and B&A has applied a Medium sensitivity in this instance. During all phases, there will be a Small magnitude of impact and a Minor-Moderate (adverse) significance of effect.
(2) PGW (Po) 34 (POW) Leighton Hall (Grade I) (NB, the northern periphery of the essential setting is within the principal study area)	c.5km south (medium range)	No	The Development will have No Impact during all phases.
(3) PGW (Po) 36 (POW) Llanerchydol Hall (Grade II*)	c.5.7km south-west (medium range)	Yes, limited area	The Development will have No Impact during all phases due to a combination of distance, localised topography and vegetation.
(4) PGW (Po) 35 (POW) Powis Castle Garden (Grade I)	c.6km south-west (medium range)	See above	See above
(5) PGW(Po) 41 (POW) Bryngwyn Hall (Grade II*) (NB, the south-eastern part of the essential setting is within the principal study area)	c.11.2km north-west (long range)	No	The Development will have No Impact during all phases.
(6) PGW(Po) 31 (POW) Glanasevern Hall (Grade II*)	c.11.4km south-west (long range)	Yes, mainly stack (identified through the ZTV review)	The Development will have No Impact during all phases due to a combination of distance, localised topography and vegetation. Viewpoint Location 26 is from the A463 at Rhiw Bridge (Berriew) and is to the north of Berriew.
(7) PGW(Po) 32 (POW) Vaynor Park (Grade I)	c.12.6km south-west (long range)	No	The Development will have No Impact during all phases.
(8) PGW(Po) 42 (POW) Bodrynoel Hall (Grade II) (NB, the western edge of the essential setting is within the principal study area)	c.13.2km north-west (long range)	No	The Development will have No Impact during all phases.



DESIGNATION (REFERENCE/NAME)	DISTANCE AND DIRECTION (RANGE)	WITHIN THE ZTV?	ASSESSMENT OF EFFECTS
(9) PGW(Po) 58 (POW) Garthmyl Hall (Grade II)	c.13.3km south-west (long range)	No	The Development will have No Impact during all phases.
Historic Landscape			
Vale of Montgomery Historic Landscape No.35	c.7.8km south (long range)	Yes, limited areas	The majority of the Historic Landscape is outwith the principal study area and the ZTV, mainly in relation to the stack, applies to limited areas at a long range. The Development will have No Impact during all phases.
Conservation Areas (identified in the principal study area/close proximity to the principal study area)			
(A) Welshpool	c.4.5km south-west (medium range)	Yes, applies to the majority of the Conservation Area apart from western fringe	The Development will have No Impact during all phases due to a combination of distance, localised topography and vegetation. Viewpoint Location 23 is just to the east of the Conservation Area boundary.
(B) Llanymynech	c.10.7km north (long range)	Yes	The Development will have No Impact during all phases due to a combination of distance, localised topography and vegetation.
(C) Bwlch-y-cibau	c.11.5km north-west (long range)	No	The Development will have No Impact during all phases.
(D) Aberriw/Berlew	c.12.2km south-west (long range)	Yes, limited area	The Development will have No Impact during all phases due to a combination of distance, localised topography and vegetation.
Scheduled Monuments (CADW) (identified in the principal study area within c.2.5km of the stack)			
(i) MG120 Strata Marcella Abbey	c.1.7km west (close range)	Yes	Field work undertaken as part of the LVIA established that the Scheduled Monument is located at a low elevation when compared to more open areas in the vicinity along the nearby A483. The Development will have No Impact during all phases due to a combination of distance, localised topography and vegetation. Viewpoint Location 21 is from the A483 near Pool Quay at Strata Marcella Abbey.
(ii) MG143 Crowther's Coppice Camp	c.2.4km north-west (close range)	Yes	The Scheduled Monument is located in Crowther's Coppice and includes a section immediately adjacent to Allt Wood (to the east). Open views are available to the north rather than to the south-east towards the Site. The Development will have No Impact during all phases due to localised vegetation. Viewpoint Location 19 is from a public footpath near Coppice East Farm and demonstrates open views from the northern edge of Allt Wood.
(iii) MG224 Offa's Dyke: South of School House	c.2.5km south-west (close range)	Yes	The Scheduled Monument is located in a low lying area adjacent to the B4386 and is south of the Offa's Dyke Business Park in Buttington. Field work undertaken as part of the LVIA established that north-easterly views are restricted by a combination of topography, intervening built form and woodland. Whereas more open views relate to the higher ground of the Long Mountain to the east. The Development will have No Impact during all phases.



6. ASSESSMENT OF VISUAL EFFECTS

6.1. INTRODUCTION

- 6.1.1. This Section assesses the potential impacts and likely visual effects of the Development on the baseline situation previously described.
- 6.1.2. Figure L7: Photograph Location Plan (Northern area) and Figure L8: Photograph Location Plan (Southern area) identify the 35 Viewpoint Locations assessed as part of the LVIA. Receptors include residents, road users, visitors to Powis Castle and footpath users including on the Offa's Dyke National Trail. The Methodology applied to assess visual effects is provided in full in Appendix 1 and summarised in Section 2.
- 6.1.3. Figures L9 to L109 present the individual viewpoint photographs. This includes panoramic photographs, single frame photograph enlargements and photomontage views for each Viewpoint Location apart from for Viewpoint Locations 34 and 35 which assess the access road.
- 6.1.4. When reviewing this Section, reference should be made to Figure L5: Zone of Theoretical Visibility (ZTV) Northern Area and Figure L6: Zone of Theoretical Visibility (ZTV) Southern Area. Figure L2 identifies the designations referred to in the text. The Landscape Masterplan is included in Appendix 2. Illustrative Cross Sections (1 to 6) are provided in Appendix 3 and are referred to for specific Viewpoint Locations.
- 6.1.5. Cumulative effects are addressed in separately later in this Section. Consideration is given to winter views including with regards to the proposed cladding colour scheme of the ERF (Appendix 12), plume visibility in general terms and from Viewpoint Location 11 in Trewern (Appendix 14) and the proposed lighting scheme from selected Viewpoint Locations (Appendix 11).

6.2. MAIN SOURCES OF VISUAL IMPACT

- 6.2.1. It was evident from early studies that the nature of the Development would lead to large areas of visibility.
- 6.2.2. Likely views were considered to be more acceptable if the architectural style was sympathetic to the landscape setting, rather than promoting built form which might have architectural merit but did not complement the existing context. The design process is set out in detail in the Design and Access Statement included in the ES. Mitigation measures form a key part of the Development and thus, reduce the sources of visual impact and are set out in Section 4 of the LVIA.



6.2.3. With reference to the Development, the main sources of change relate to:

- ◆ **During construction**, ground modelling to facilitate the ERF and the earthworks to complete the existing screen bund along Sale Lane and the proposed screen bunds elsewhere within the Site along with native broadleaved tree planting shown on the Landscape Masterplan. The screen bunds offer effective screening features at close range and additional woodland planting will help to integrate the bunds at a close and medium range. Views of crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF are also considered;
- ◆ **During operation**, views of the upper elevations and rooflines of the ERF building including the energy recovery hall (46m high), waste reception hall (23m high) and stack (70m high). As part of mitigation measures, the selection of cladding colours is intended to be sympathetic to the landscape setting and uses prevailing natural shades of green and light brown hues. Studies have shown these will be an appropriate use of colour in both summer and winter scenes. This aspect is examined for selected winter views. The presence of the grassed screen bunds is taken into account; and
- ◆ **During decommissioning**, removal of built form and ground restoration.

6.2.4. The construction and decommissioning phases will involve similar effects resulting from crane movements (i.e. erection and removal of buildings). Overall, decommissioning is likely to have less impact in comparison given that earthworks and ground modelling associated with the construction phase will not be required.

6.2.5. During the operation phase, no allowance is made for the additional screening benefits offered by the proposed native woodland planting illustrated by the Landscape Masterplan. Consideration is given to the screen bunds only. During decommissioning, the presence of the screen bunds and proposed native woodland planting as it matures may contribute to a reduction of magnitude of impact and subsequent effects particularly within close range. It may also enhance the existing landscape setting in broader terms.

6.2.6. The formation of the Site access road by HGVs is considered separately through Viewpoint Location 34 and 35.

6.3. DESCRIPTION OF THE ZONE OF THEORETICAL VISIBILITY AND SELECTION OF VIEWPOINT LOCATIONS

6.3.1. Figures L5 and L6 demonstrate the Zone of Theoretical Visibility (ZTV) which has been identified using computer based analysis established on the potential visibility of the stack (purple shading) and the upper roof section of the ERF combined with the stack (blue shading). This is based on a 70m high stack.



- 6.3.2. However, it should be noted that this is founded on landform and key areas of existing woodland digitised from OS data. Proposed native woodland planting on the screen bunds as part of the broader landscape strategy for the Development were not incorporated into the model to define the ZTV.
- 6.3.3. As a broad assessment tool it then enables a more detailed level of appraisal. It is particularly relevant to visual impact assessment but also enables an evaluation of landscape character effects.
- 6.3.4. Generally, a combination of topography and the presence of some woodland elsewhere within the principal study area plays an important role in restricting wider views of the proposed ERF building and stack. However, topography is the key determining factor. Assessment of the visibility of the stack compared to the ERF building has been undertaken to understand where the stack may become visible in isolation, namely without context to the overall Development. In such cases, this may result in an **adverse** rather than **neutral** effect. The ZTV is summarised as follows:
- ◆ In the **immediate vicinity of the Site (within 500m)**, the ZTV indicates that the stack is broadly in view apart from to the west of the Site. Views of the upper elevations of the ERF building are more limited to the north-west of the A438 due to the adjacent landform and woodland and to the south-west due to topography south Heldre Lane;
 - ◆ At a **close range (from 500m to 3km)**, views of both the upper elevations of the ERF building and stack are possible forming an arc (clockwise) north-west to north-east, with two further areas to the south-west and east. There are areas where the ZTV indicates that views of the stack will be likely, to the east near Middle Heldre and also to the west at this distance range;
 - ◆ The ZTV indicates that there will be a lack of views, broadly **forming a band east to south (clockwise)** beyond c.1.5km due to landform and some mixed woodland tracts. This also applies to the west within the same distance range near Crowther's Coppice and Allt Wood;
 - ◆ At a **medium range (from 3km to 6km)**, the ZTV demonstrates that views of the upper elevations of the ERF building and stack will be available broadly to the north and south-west, together with more isolated areas to the north-east. In addition, there are limited areas where the stack might be in view. At this distance, views of the Development become more restricted notably forming a belt east to south-west (clockwise) and also to the north-east and west of the Site. This also applies at long range (beyond 6km); and
 - ◆ The ZTV indicates that at **long range**, views of the upper elevations of the ERF building and stack continue to the north of the Site and become more intermittent to the south-west and north-west.



6.3.5. The Viewpoint Locations assessed in the LVIA are summarised as follows:

- ◆ **Immediate Vicinity and Close Range Views to the South-East, South and South-West:** Viewpoint Location 1 to 7 examine views for residents (ground and first floor locations/gardens) and road users in the immediate vicinity and for the same receptor groups and also footpath users in close range. Both static and sequential views are assessed from Heldre Lane (Viewpoint Location 1, 2 and 4) and from the footpath network (Viewpoint Location 3 and 5 to 7);
- ◆ **Close and Medium Range Views to the North, North-East and East:** Viewpoint Location 8 to 18 explore views for residents (ground floor locations/gardens and upper floor windows), road users and footpath users. Consideration is given to walkers (general recreation) and from an established viewing point at Rodney's Pillar. Sequential views are appraised from the A458 (Viewpoint Location 8 and 9), from part of the same route (Viewpoint Location 15) and from Garreg Bank in Trewern (Viewpoint Location 10 and 11). Static views are considered from lanes (Viewpoint Location 12 to 14), the footpath network (Viewpoint Location 16) and an established viewing point at Rodney's Pillar (Viewpoint Location 18). Viewpoint Location 17 is representative of some sequential views from a footpath on Middletown Hill;
- ◆ **Close Range Views to the North-West:** Viewpoint Location 19 to 21 consider views for footpath users on the Offa's Dyke National Trail and general footpath network, residents (ground floor locations/gardens) and road users. Viewpoint Location 19 represents a static view from the footpath network. Whilst Viewpoint Location 20 and 21 present sequential views (the former intermittent);
- ◆ **Close and Medium Range Views to the South-West:** Viewpoint Location 22 and 23 evaluate views from the Offa's Dyke National Trail, residents (upper floor windows) and workers at nearby employment areas and road users. Viewpoint Location 22 is a sequential view from the A458 at Buttington Bridge. Viewpoint Location 23 is static view from the B4381 at Welshpool;
- ◆ **Long Range Views to the South-West:** Viewpoint Location 24 to 27 assess views for visitors to Powis Castle, footpath users and for road users. Static views comprise Viewpoint Location 24 (Powis Castle) and at Viewpoint Location 25, a trig point on Y Golfa (Welshpool Golf Club). Sequential views are considered from the A483 (Viewpoint Location 26) and footpath network (Viewpoint Location 27);



- ◆ **Medium and Long Range Views to the North, North-East and North-West:** Viewpoint Location 28 to 33 explore views for residents (ground floor locations/gardens and upper floor windows) and road users. Views for footpath users on the Offa's Dyke National Trail, Severn Way long distance footpath and general footpath network are assessed. Consideration is given to recreation users at Llanymynech Golf Club and walkers (general recreation). Sequential views are considered from the A483 (Viewpoint Location 28) and the footpath network (Viewpoint Location 30). Static views are evaluated from the road network (Viewpoint Location 29), footpaths (Viewpoint Location 31 and 32) and vantage points (Viewpoint Location 33); and
- ◆ **Views from the Access Road:** Viewpoint Location 34 and 35 assess views for road users due to the access road..

6.4. VIEWPOINT LOCATIONS

- 6.4.1. The Viewpoint Locations have been chosen as being representative of the range of potential views of the Site and to enable an assessment of the landscape and visual effects resulting from the Development. In so doing, it informs the overall conclusion of the visual capacity.
- 6.4.2. The selection of Viewpoint Locations has taken into account comments in the Scoping Direction and following the recent pre-application consultation process. Viewpoint Location 24 is from Powis Castle and the photograph is taken from the upper garden terrace on the north-eastern side of Powis Castle. B&A has been informed by Powys County Council that a planning application has been submitted to open up the east garden of Powis Castle to the public. On the basis of information received, B&A consider that the Viewpoint Location included in this LVIA and assessment to be a rigorous choice.
- 6.4.3. Figures L7 and L8 identify the 35 Viewpoint Locations which are assessed as part of the LVIA. Table 8 lists the Viewpoint Locations, describes the location of the photograph, the identified receptor (sensitivity) and distance/direction (range) from the Site. The immediate vicinity of the Site is classified as within 500m, close range from 500m to 3km and medium range from 3km to 6km. Long range is beyond 6km.
- 6.4.4. For each Viewpoint Location, a narrative is provided of the current situation including aspects concerning the Site. An assessment of effects during each phase of the Development is set out. The evaluation takes into account the design, layout and siting of the Development along with mitigation measures described in Section 4, such as the proposed cladding colour scheme and screen bunds etc.
- 6.4.5. The accompanying Figures identify the Site location (panoramic photographs) and aspects of the Site in more detail in the existing view (single photograph enlargement). The photomontage views show the ERF building and stack. Proposed tree planting is illustrated in summer after c.10 years when trees will be c.6m to 8m high. Where the screen bund is a key screening feature in close range views, the alignment and topmost part of



the bund is shown on the photomontage view to enable an evaluation of the visual context without any established woodland. As stated, the assessment does not take into account proposed native woodland planting and its screening properties during the operation phase.

6.4.6. Table 9: Summary of Visual Effects summarises the findings of the visual impact assessment.

Table 8: Viewpoint Locations

VP NO.	LOCATION	DESCRIPTION	RECEPTOR (SENSITIVITY)	DISTANCE/DIRECTION (RANGE)
Immediate Vicinity and Close Range Views to the South-East, South and South-West				
1	From Heldre Lane immediately west of Whitehouse Farm	Taken from the access track immediately alongside Heldre Lane to best imitate potential upper floor views from the residential property and adjacent environs.	Residents (both ground and potential first floor locations/gardens) (High) and road users (Low)	300m south-west (immediate vicinity)
2	From Heldre Lane	Taken from grass verge alongside Heldre Lane, to best imitate potential views gained from vehicles travelling northward on the Lane.	Road users (Low)	480m south-east (immediate vicinity)
3	From public footpath immediately south of Nelly Andrews' Green	Assumed location of the footpath alongside a farm track to enable northward views to the Site.	Footpath users (Medium)	710m south (close range)
4	From Heldre Lane at Upper Heldre	From gateway adjacent to Heldre Lane to best demonstrate potential maximum views from Heldre Lane including adjacent residential properties.	Residents (ground floor locations/gardens) (High) and road users (Low)	990m south-east (close range)
5	From public footpath south of Buttington leading towards the Longmountain	From assumed location of definitive route on the north side of Oak Plantation.	Footpath users (Medium)	1.3km south (close range)
6	From public footpath on Heldre Hill	From assumed location of footpath route.	Footpath users (Medium)	1.4km south-east (close range)
7	From Brunant, immediately south of Pob Ceiniog	From a farm track.	Residents (ground floor locations/gardens) (High) and footpath users (Medium)	1.65km south-east (close range)
Close and Medium Range Views to the North, North-East and East				
8	From A458 at Cefn	From footpath (pavement) alongside main road.	Residents (upper floor windows) (Medium) and road users (Low)	1.1km north-east (close range)
9	From A458 at Trewern	From grass verge at junction with Garreg Bank alongside main road.	Residents (upper floor windows) (Medium) and road users (Low)	1.9km north-east (close range)
10	From Garreg Bank (lower), Trewern	From vehicle passing bay alongside public road.	Residents (ground floor locations/gardens) (High) and road users (Low)	1.7km north-east (close range)



VP NO.	LOCATION	DESCRIPTION	RECEPTOR (SENSITIVITY)	DISTANCE/DIRECTION (RANGE)
11	From Garreg Bank (upper), Trewern	From roadside where hedge gap has been formed.	Residents (upper floor windows) (Medium) and road users (Low)	1.9km north-east (close range)
12	From Criggion Lane, Trewern	From grass verge alongside public road.	Residents (upper floor windows) (Medium) and road users (Low)	1.7km north-east (close range)
13	From lane at Golfa Bank and adjacent to The Old Shop Cottage	From field gateway immediately alongside public road.	Residents (upper floor windows) (Medium) and road users (Low)	2.3km north-east (close range)
14	From Bacheldre Lane adjacent to Oak Grange	From public road.	Residents (ground floor locations/gardens) (High) and road users (Low)	3.5km east (medium range)
15	From A458 west of Wollaston	From gateway alongside public road.	Road users (Low)	5.6km east (medium range)
16	From Moel y Golfa	From woodland clearing on used route of footpath.	Footpath users (Medium)	3km north-east (close range)
17	From Middletown Hill	From the upper part of Middletown Hill.	Walkers (general recreation) (Medium)	5km north-east (medium range)
18	From Rodney's Pillar	From the south-western side of Rodney's Pillar.	Established viewing point at Rodney's Pillar (High)	5km north (medium range)
Close Range Views to the North-West				
19	From public footpath near Coppice East Farm (near Pool Quay)	From edge of open field near footpath stile.	Residents (ground floor locations/gardens) (High) and footpath users (Medium)	2.3km north-west (close range)
20	From A483 at Pool Quay	From gateway on edge of the public road and adjacent to the footpath stile.	Offa's Dyke Path National Trail users (High) and road users (Low)	1.8km north-west (close range)
21	From A483 near Pool Quay at Strata Marcella Abbey	From canal path immediately alongside the public road.	Offa's Dyke Path National Trail users (High) and road users (Low)	1.8km north-west (close range)
Close and Medium Range Views to the South-West				
22	From A458 at Buttington Bridge	From grass verge immediately north of Buttington Bridge.	Offa's Dyke Path National Trail users (High) and workers at nearby employment areas and road users (Low)	2.4km south-west (close range)
23	From B4381 at Welshpool	From northern side of bridge on the roadside.	Residents (upper floor windows) (Medium) and road users (Low)	5km south-west (medium range)
Long Range Views to the South-West				
24	From Powis Castle, Welshpool	From upper garden terrace on the north-eastern side of Powis Castle.	Visitors to Powis Castle (Very High)	6.4km south-west (long range)
25	From Y Golfa (Welshpool Golf Club)	On apparent footpath near to the trig point.	Footpath users (Medium)	8.9km south-west (long range)
26	From A483 at Rhiw Bridge (Berriew)	From grass verge alongside public road.	Road users (Low)	12km south-west (long range)



VP NO.	LOCATION	DESCRIPTION	RECEPTOR (SENSITIVITY)	DISTANCE/DIRECTION (RANGE)
27	From public footpath between Y Brywydd and Castle Caereinion	From open field and hill top.	Footpath users (Medium)	13.4km south-west (long range)
Medium and Long Range Views to the North, North-East and North-West				
28	From A483 at Ardleen	From gateway alongside public road.	Residents (upper floor windows) (Medium) and road users (Low)	5km north (medium range)
29	From Castlehill Lane, Burgedin	From raised verge alongside public road.	Road users (Low)	5.7km north-west (medium range)
30	From the Severn Way, east of Trederwen	From flood defence embankment and public path.	Severn Way long distance footpath users (Medium)	6.3km north-east (long range)
31	From Llanymynech Hill	From edge of golf course and near quarry face.	Footpath users (Medium) and recreation users at Llanymynech Golf Club (Low)	11.7km north (long range)
32	From Quarry Lane and Offa's Dyke Path, Nantmawr	From public road alongside footpath stile.	Offa's Dyke Path National Trail users and residents (ground floor locations/gardens) (High)	14.6km north (long range)
33	From Green Hall Hill, Brynelltyn, Llanfyllin	From walked track and apparent lookout point on eastern side of the hill.	Walkers (general recreation) (Medium)	14.1km north-west (long range)
Views from the Access Road				
34	N/A		Road users (Low)	
35	N/A		Road users (Low)	

6.5. VISUAL IMPACT ASSESSMENT - IMMEDIATE VICINITY AND CLOSE RANGE VIEWS TO THE SOUTH-EAST, SOUTH AND SOUTH-WEST

Viewpoint Location 1 From Heldre Lane immediately west of Whitehouse Farm (Refer to Figures L9 to L11A)

Current Situation

- 6.5.1. Viewpoint Location 1 is from a gateway on Heldre Lane near to Whitehouse Farm (residential property) and is to the south-west of the Site within the immediate vicinity (c.300m). The photograph location has been selected to best imitate potential upper floor views from Whitehouse Farm and adjacent environs. The assessment considers north-easterly views from both Whitehouse Farm and Green Farm. Both include large outbuildings and when combined with intervening vegetation within and outwith individual property curtilages; this may restrict broader direct views towards the Site. This represents a static view and receptors will include residents (both ground and potential first floor locations/gardens) (**High** sensitivity) and road users (**Low** sensitivity).



- 6.5.2. The existing view is from an elevated location on Heldre Lane (c.110mAOD) where a low hedgerow permits views across the agricultural fields immediately south of the Site. Woodland along the south-western Site boundary merges with vegetation elsewhere and creates an overall well wooded appearance. The higher elevations of the Site comprise exposed mineral faces and benches. The aforementioned features and vegetation at a higher elevation are seen against the skyline and limits wider views. Rising above the south-western edge of the Site are the distinct wooded hills of Moel y Golfa and Breidden Hill which form part of the background (Figure L9). This is shown in more detail through the single photograph enlargement (Figures L10 and L10A).

The Development

- 6.5.3. The photomontage views illustrate the Development and incorporated mitigation measures (Figures L11 and L11A).

During Construction

- 6.5.4. Crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF will be seen. There will be potential views of the formation of the upper levels of the proposed screen bund sited alongside the internal access road to Laydown Area 4 (which will restrict direct views of vehicle movements during the operation phase). The screen bund will be grass seeded and planted with native broadleaved trees. Laydown Area 3 which is closer to the Viewpoint Location is generally screened by existing vegetation outwith the Site. Albeit, glimpsed views may arise from the roadside during winter months.
- 6.5.5. The Development will introduce new elements which will form a significant and immediately apparent aspect of the scene and will affect the overall impression of the view. There will be a **Large** magnitude of impact and a **Major (adverse)** significance of effect for residents and a **Moderate (adverse)** significance of effect for road users.

During Operation

- 6.5.6. Illustrative Cross Section 1 (Appendix 3) shows that existing treecover on the south-western Site boundary will screen views of the access road and other infrastructure in the central part of the Site from the environs of Green Farm. Although, there will be a clear view of the upper elevation and roofline of the ERF building and the stack against the skyline from both Whitehouse Farm and Green Farm. The ERF building will also reduce distant views of the lower slopes of Moel y Golfa. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The Development will feature new elements which will be noticeable in the scene and will affect the overall impression of the view. There will be a **Medium to Large** (potentially **Large**) with a **Major (adverse)** significance of effect for residents and a **Moderate (adverse)** significance of effect for road users (worst case scenario).



During Decommissioning

- 6.5.7. In this final phase, effects will be similar to that described during construction with views of crane movements etc. seen at the skyline. Whilst there will be a lack of available views of Site activities relating to ground restoration. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting. There will be a **Medium** magnitude of impact and a **Moderate to Major (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users.

Viewpoint Location 2 From Heldre Lane (Refer to Figures L12 to L14)

Current Situation

- 6.5.8. Viewpoint Location 2 is from Heldre Lane and is to the south-east of the Site within the immediate vicinity (480m).
- 6.5.9. The Site is most visible when travelling northwards downhill along the route and the photograph is taken from a grass verge alongside Heldre Lane. Whilst glimpsed views are possible elsewhere, the lower section of Heldre Lane has low clipped hedgerows and more notable breaks allow more direct views of the Site as shown by the photograph. This represents a sequential view and receptors will include road users (**Low** sensitivity).
- 6.5.10. The existing view (c.130mAOD) comprises a foreground of pasture fields divided by hedgerows and hedgerow trees. The partially completed screen bund along the eastern Site boundary adjacent to Sale Lane can be identified through gaps in intervening vegetation. The higher elevations of the Site are seen against a backdrop of agricultural fields and woodland in the Severn Valley and higher rolling hills at a further distance (Figure L12). This is shown in more detail through the single photograph enlargement (Figure L13).

The Development

- 6.5.11. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L14).

During Construction

- 6.5.12. Crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF will be seen. Ground modelling within the central environs of the Site to form the screen bund immediately south of the ERF building and the temporary storage of materials in Laydown Area 4 will be in view. Screen bunds including along Sale Lane will be grass seeded and planted with native broadleaved trees. The Development will introduce new elements which will form a significant and immediately apparent aspect of the scene and will affect the overall impression of the view. There will be a **Large** magnitude of impact and a **Moderate (adverse)** significance of effect for road users.



During Operation

- 6.5.13. There will be a clear view of the upper elevation and graduated roofline of the ERF building against a backdrop of higher ground with the upper part of the stack against the skyline. Illustrative Cross Section 2 (Appendix 3) shows a sightline from the lower end of Heldre Lane. It illustrates the proposed changes to the current landform and the siting of proposed built form within the ERF development base. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The screen bunds will reduce more direct views of the lower elevations of the ERF building and stack along with vehicle movements. The Development will feature new elements which will be noticeable in the scene and will affect the overall impression of the view. There will be a **Medium to Large** magnitude of impact and a **Moderate (adverse)** significance of effect as a result.

During Decommissioning

- 6.5.14. In this final phase, effects will be similar to that described during construction with views of crane movements etc. Whilst there will be a lack of available views of Site activities relating to ground restoration. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting. There will be a **Medium** magnitude of impact and a **Minor-Moderate (adverse)** significance of effect.

Viewpoint Location 3 From public footpath immediately south of Nelly Andrews' Green (Refer to Figures L15 to L17)

Current Situation

- 6.5.15. Viewpoint Location 3 is from a public footpath immediately south of Nelly Andrews' Green to the south of the Site within close range (710m). The footpath leads off Heldre Lane (to the north-east) and links to a residential property (Gelli) and the wider footpath network (to the south-west). For c.600m along the route, a combination of an increased elevation and an adjacent low hedgerow permits wider views including north towards the Site. The footpath user then loses direct visual connectivity with the Site due to a combination of woodland, the terrain and footpath alignment. This represents a sequential view along the route and receptors will include footpath users (**Medium** sensitivity).
- 6.5.16. This elevated location (c.150mAOD) offers an extensive scene across agricultural fields and farm outbuildings. The partially completed screen bund along the eastern Site boundary adjacent to Sale Lane can be identified through gaps in intervening vegetation. The higher elevations of the Site are viewed against a backdrop of agricultural fields and woodland in the Severn Valley and higher rolling hills at a further distance. The wooded hills of Moel y Golfa and Breidden Hill are notable features to the right of the photograph (Figure L15). The Site environs are shown in more detail through the single photograph enlargement (Figure L16).



The Development

- 6.5.17. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L17).

During Construction

- 6.5.18. Crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF will be seen. The screen bund along Sale Lane will be completed, grass seeded and planted with native broadleaved trees. Glimpsed views may be possible of vehicle movements and the temporary storage of materials in Laydown Area 4. The Development will introduce new elements which will be noticeable in the scene and will affect the overall impression of the view. There will be a **Medium to Large** magnitude of impact and a **Moderate (adverse)** significance of effect for footpath users.

During Operation

- 6.5.19. There will be a clear view of the upper elevation and graduated roofline of the ERF building and stack against a backdrop of higher ground. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The screen bund will reduce more direct views of vehicle movements. The Development will introduce new elements which will form a recognisable change to the amenity but will not be intrusive within the overall scene. There will be a **Medium** magnitude of impact and a **Moderate (adverse)** significance of effect.

During Decommissioning

- 6.5.20. In this final phase, effects will be similar to that described during construction with views of crane movements etc. Views will be available of Site activities relating to ground restoration from this elevated location. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting. There will be a **Medium** magnitude of impact and a **Moderate (adverse)** significance of effect.

Viewpoint Location 4 From Heldre Lane at Upper Heldre (Refer to Figures L18 to L20)

Current Situation

- 6.5.21. Viewpoint Location 4 is from Heldre Lane at Upper Heldre and is to the south-east of the Site within close range (990m).
- 6.5.22. The photograph is taken from a field gateway along a section of the route that is generally screened by woodland and hedgerows. It has been selected to best demonstrate potential maximum views from Heldre Lane and nearby houses. Likely north-westerly views are available from residential properties (Nant y Brochan and The Granary) which are to the east of the viewer on Heldre Lane. However, localised vegetation and outbuildings may restrict direct views towards the Site. This represents a static view on Heldre Lane. Receptors will include residents (ground floor locations/gardens) (**High** sensitivity) and road users (**Low** sensitivity).



- 6.5.23. This elevated location (c.165mAOD) provides a scene of agricultural fields and woodland interspersed by telegraph posts. At a further distance is the partially formed screen bund along the eastern Site boundary adjacent to Sale Lane. The higher elevations of the Site are seen against a backdrop of agricultural fields and woodland in the Severn Valley and higher rolling hills notably, the wooded slopes of Crowther's Coppice and Allt Wood (Figure L18). This is shown in more detail through the single photograph enlargement (Figure L19).

The Development

- 6.5.24. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L20).

During Construction

- 6.5.25. Crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF will be seen. Ground modelling within the central environs of the Site including the formation of the screen bund immediately south of the ERF building and restored northern quarry face will be in view. The screen bund along Sale Lane will be completed and all screen bunds will be grass seeded and planted with native broadleaved trees. The Development will introduce new elements which will be noticeable in the scene and will affect the overall impression of the view. There will be a **Medium to Large** magnitude of impact with a **Moderate to Major (adverse)** significance of effect for residents and a **Moderate (adverse)** significance of effect for road users.

During Operation

- 6.5.26. There will be a clear view of the upper elevation and graduated roofline of the ERF building and the stack against a backdrop of higher ground. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The screen bunds will reduce more direct views of the lower elevations of the ERF building and stack. The Development will introduce new elements which will form a recognisable change to the amenity but will not be intrusive within the overall scene. There will be a **Medium** magnitude of impact with a **Moderate to Major (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users.

During Decommissioning

- 6.5.27. In this final phase, effects will be similar to that described during construction with views of crane movements etc. Views will be available of Site activities relating to ground restoration from this elevated location. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting. There will be a **Medium** magnitude of impact with a **Moderate to Major (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users.



Viewpoint Location 5 From public footpath south of Buttington leading towards the Longmountain (Refer to Figures L21 to L23)

Current Situation

- 6.5.28. Viewpoint Location 5 is from a public footpath south of Buttington and is within close range of the Site (1.3km). The route leads from the environs of Gelli (a residential property) and increases in elevation as it reaches Oak Plantation, an area of mature woodland. The photograph is from the northern side of Oak Plantation and illustrates the context and visibility of the Site at its most apparent from footpaths in the vicinity. As this particular route extends uphill towards Long Mountain, there is no direct line of sight to the proposed ERF building or stack as demonstrated by the ZTV (Figure L7). This represents a static view on the route and receptors will include footpath users (**Medium** sensitivity).
- 6.5.29. The photograph shows the panoramic scene (c.225mAOD) from the woodland edge which looks across steep slopes and woodland copses towards agricultural fields divided by hedgerows and interspersed with farmsteads and residential properties at a lower level. The partially formed screen bund along the eastern Site boundary adjacent to Sale Lane can be perceived. The higher elevations of the Site are seen against a backdrop of agricultural fields and woodland in the Severn Valley. The wooded slopes of Crowther's Coppice and Allt Wood are prominent features to the left of the photograph. At a further distance and as landform rises, rolling hills provide a backdrop (Figure L21). This is shown in more detail through the single photograph enlargement (Figure L22).

The Development

- 6.5.30. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L23).

During Construction

- 6.5.31. Crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF will be seen. Ground modelling within the central environs of the Site including the formation of the screen bund immediately south of the ERF building and restored northern quarry face will be in view. The screen bund along Sale Lane will be completed and all screen bunds will be grass seeded and planted with native broadleaved trees. Glimpsed views may be possible of vehicle movements and the temporary storage of materials in Laydown Area 4. There will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect.



During Operation

- 6.5.32. There will be a clear view of the upper elevation and graduated roofline of the ERF building and stack against a backdrop of agricultural fields. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. More direct views of the lower elevations of the ERF building and stack will be reduced by the adjacent screen bund. The Development will introduce new elements which will form a recognisable change to the amenity but will not be intrusive within the overall scene. There will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect for footpath users.

During Decommissioning

- 6.5.33. In this final phase, effects will be similar to that described during construction with views of crane movements etc. Views will be available of Site activities relating to ground restoration from this elevated location. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting. There will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect.

Viewpoint Location 6 From public footpath on Heldre Hill (Refer to Figures L24 to L26)

Current Situation

- 6.5.34. Viewpoint Location 6 is from a public footpath on Heldre Hill, an area of access land and is to the south-east of the Site within close range (1.4km). The footpath leads from the hamlet of Brunant and links to a minor road south of Heldre Hill. The photograph demonstrates the view walking northwards downhill where the wide panorama is evident until it becomes more restricted due to the rolling terrain of Heldre Hill and the lower levels towards Brunant. This represents a sequential view along the route and receptors will include footpath users (**Medium** sensitivity).
- 6.5.35. The expansive scene (c.295mAOD) looks out across the lower grassland slopes of Heldre Hill. The partially formed screen bund along the eastern Site boundary adjacent to Sale Lane can be perceived. The higher elevations of the Site are viewed against a backdrop of agricultural fields and woodland in the Severn Valley. The wooded slopes of Crowther's Coppice and Allt Wood are prominent features to the left of the photograph. At a further distance and as landform rises, rolling hills provide a backdrop (Figure L24). This is shown in more detail through the single photograph enlargement (Figure L25).

The Development

- 6.5.36. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L26).



During Construction

- 6.5.37. Views will be possible of crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF. Ground modelling within the central environs of the Site including the formation of the screen bund immediately south of the ERF building and restored northern quarry face will be seen. The screen bund along Sale Lane will be completed and all screen bunds will be grass seeded and planted with native broadleaved trees. Glimpsed views may be possible of vehicle movements and the temporary storage of materials in Laydown Area 4. The Development will introduce new elements which will be noticeable in the scene and will affect the overall impression of the view. There will be a **Medium to Large** magnitude of impact and a **Moderate (neutral)** significance of effect for footpath users.

During Operation

- 6.5.38. There will be a clear view of the upper elevation and graduated roofline of the ERF building and stack against a backdrop of woodland and agricultural fields. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. More direct views of the lower elevations of the ERF building and stack will be reduced by the adjacent screen bund. The Development will introduce new elements which will form a recognisable change to the amenity but will not be intrusive within the overall scene. There will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect for footpath users.

During Decommissioning

- 6.5.39. In this final phase, effects will be similar to that described during construction with views of crane movements etc. Views will be available of Site activities relating to ground restoration from this elevated location. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting. There will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect.

Viewpoint Location 7 From Brunant, immediately south of Pob Ceiniog (Refer to Figures L27 to L29)

Current Situation

- 6.5.40. Viewpoint Location 7 is from a public footpath at Brunant, immediately south of Pob Ceiniog and is to the south-east of the Site within close range (1.65km).
- 6.5.41. The photograph is taken from the route which runs concurrently with a farm track leading to Peny-Bank (on OS nomenclature) and shows the available views along the route. There are two residential properties in the immediate vicinity, Peny-Bank and Pob Ceiniog. The latter can be seen to the right of the photograph and the illustrated view is limited to this property. Views from upper floor windows might also be possible from Peny-Bank. However, localised vegetation and outbuildings may restrict direct north-westerly views towards the Site in both cases.



6.5.42. This represents a sequential view along the route. Receptors will include residents (ground floor locations/gardens) (**High** sensitivity) and footpath users (**Medium** sensitivity).

6.5.43. This elevated location (c.235mAOD) offers an expansive view of woodland and agricultural fields near Brunant and Upper Heldre. The partially formed screen bund along the eastern Site boundary adjacent to Sale Lane can be perceived. The higher elevations of the Site are seen against a backdrop of agricultural fields and woodland in the Severn Valley. The wooded slopes of Crowther's Coppice and Allt Wood are prominent features towards the centre of the photograph. At a further distance and as landform rises, rolling hills provide a backdrop (Figure L27). This is shown in more detail through the single photograph enlargement (Figure L28).

The Development

6.5.44. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L29).

During Construction

6.5.45. Views will be possible of crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF. Ground modelling within the central environs of the Site including the formation of the screen bund immediately south of the ERF building and restored northern quarry face will be in view. The screen bund along Sale Lane will be completed and all screen bunds will be grass seeded and planted with native broadleaved trees. The Development will introduce new elements which will form a recognisable change to the amenity but will not be intrusive within the overall scene. There will be a **Medium** magnitude of impact and a **Moderate to Major (adverse)** significance of effect for residents and a **Moderate (adverse)** significance of effect for footpath users.

During Operation

6.5.46. There will be a clear view of the upper elevation and graduated roofline of the ERF building and stack against a backdrop of woodland and agricultural fields. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. More direct views of the lower elevations of the ERF building and stack will be reduced by the adjacent screen bund. The Development will introduce new elements which will constitute a minor component of the wider view and will not affect the overall quality of the scene. There will be a **Small** magnitude of impact and a **Moderate (neutral)** significance of effect for residents and a **Minor-Moderate (neutral)** significance of effect for footpath users.



During Decommissioning

- 6.5.47. In this final phase, effects will be similar to that described during construction with views of crane movements etc. Views of Site activities relating to ground restoration will be limited. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting. There will be a **Small** magnitude of impact and a **Moderate (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for footpath users.

6.6. VISUAL IMPACT ASSESSMENT - CLOSE AND MEDIUM RANGE VIEWS TO THE NORTH, NORTH-EAST AND EAST

Viewpoint Location 8 From A458 at Cefn (Refer to Figures L30 to L32)

Current Situation

- 6.6.1. Viewpoint Location 8 is from the A458 which passes through the village of Cefn and is to the north-east of the Site within close range (1.1km). The photograph is from a footpath (pavement) alongside the A458. It illustrates the scene along the route which is generally available between Trewern and Cefn. Comparable views may be possible from nearby public footpaths and adjoining lanes. However, views of the Site from Cefn itself are less notable given the closer proximity of the Site and the screening properties of intervening woodland and landform. The assessment considers potential south-westerly views from a cluster of residential properties near the junction of the A458 and Heldre Lane (e.g. Trevane, Min-y-Nant, Ty Ger-y-Nant and Brookfield). Albeit localised vegetation and outbuildings may restrict direct south-westerly views of the Site. This represents a sequential view along the route. Receptors will include residents (upper floor windows) (**Medium** sensitivity) and road users (**Low** sensitivity).
- 6.6.2. The existing view (c.70mAOD) encompasses the A458 which is bordered by low hedgerows and flanked by road lighting and telegraph posts. Cefn is viewed at a further distance. The Site forms part of an elevated area of landform which appears as part of the backdrop and includes the upper extents of woodland abutting the A458. The partially formed screen bund along the eastern Site boundary adjacent to Sale Lane can be viewed against the skyline. Wider views of the Site are restricted by intervening vegetation. Long Mountain is a notable feature to the left of the photograph (Figure L30). The Site and its environs are shown in more detail in the single photograph enlargement (Figure L31).

The Development

- 6.6.3. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L32).



During Construction

- 6.6.4. Crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF will be seen at the skyline. The screen bund along Sale Lane will be completed, grass seeded and planted with native broadleaved trees.
- 6.6.5. The Development will introduce new elements which will constitute a minor component of the wider view and will not affect the overall quality of the scene. Usually, activities such as crane movements etc. at the skyline would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase from a **Small** to **Medium** level. Generally, there will be a **Minor-Moderate (adverse)** significance of effect for residents and a **Minor (adverse)** significance of effect for road users. Albeit, with the potential to rise to a **Moderate (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users (worst case scenario).

During Operation

- 6.6.6. There will be a clear view of the upper elevation of the ERF building and stack against the skyline, seen at an acute angle. Whilst direct views of the lower parts of the proposed built form are limited by intervening landform and vegetation. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The Development will introduce new elements which will form a recognisable change to the amenity but will not be intrusive within the overall scene. There will be a **Medium** magnitude of impact and a **Moderate (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users.

During Decommissioning

- 6.6.7. In this final phase, effects will be similar to that described during construction with views of intermittent crane movements etc. seen at the skyline. Whilst there will be no available views of Site activities relating to ground restoration. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting. Overall, magnitude of impact will be slightly lower than predicted in comparison to construction. There will be a **Small** magnitude of impact and **Minor-Moderate (adverse)** significance of effect for residents and a **Minor (adverse)** significance of effect for road users.



Viewpoint Location 9 From A458 at Trewern (Refer to Figures L33 to L35)

Current Situation

- 6.6.8. Viewpoint Location 9 is from the A458 at Trewern and is to the north-east of the Site within close range (1.9km). The photograph is taken from a grass verge on the roadside near the junction with Garreg Bank. There are a number of residential properties on the edge of Trewern including at Breidden Place (The Hollies, The Hawthorns, Cedar House and Oakdale) which may have south-westerly views towards the Site. Oakdale can be seen to the right of the photograph. However, direct south-westerly views may be restricted by localised vegetation and outbuildings. Maesfron Hall, is a residential property and a Registered Park and Garden of Special Historic Interest in Wales (Grade II) (Figure L2) and is to the south-west of the viewer (c.110m). The Viewpoint Location is just outwith its essential setting.
- 6.6.9. This represents a sequential view travelling south-westwards along the A458 and is representative of potential views from Maesfron Hall and some outlying residential properties as noted above, most likely from upper floor windows. Receptors will include residents (upper floor windows) (**Medium** sensitivity) and road users (**Low** sensitivity).
- 6.6.10. With regards to the broader vicinity, there are glimpsed views towards the Site from the A458 and possibly some residential properties to the east in Middletown and between Wollaston (Viewpoint Location 15) and others explored at Trewern (Viewpoint Location 10 to 13). The chosen locations are representative of the local amenity, although views are restricted along sections of the A458 due to a combination of vegetation, hedgerows and terrain. The ZTV generally indicates greater visual context on higher ground off the A458 and towards Middletown Hill (Figure L7).
- 6.6.11. The existing view (c.89mAOD) encompasses a foreground of hedgerows and other vegetation along the A458 interspersed by telegraph posts. At a further distance, Long Mountain is a prominent feature to the left of the photograph. The Site forms part of an elevated area of landform which appears as part of the backdrop and includes the upper extents of woodland abutting the A458. The partially formed screen bund along the eastern Site boundary adjacent to Sale Lane can be identified (Figure L33). This is shown in more detail through the single photograph enlargement (Figure L34).

The Development

- 6.6.12. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L35).



During Construction

- 6.6.13. Crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF will be seen at the skyline. Whilst ground modelling within the central environs of the Site relating to the restored northern quarry face will be in view. The screen bund along Sale Lane will be completed, grass seeded and planted with native broadleaved trees. The Development will introduce new elements which will constitute a minor component of the wider view and will not affect the overall quality of the scene.
- 6.6.14. Usually, activities such as crane movements etc. at the skyline would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase from a **Small** to **Medium** level. Generally, there will be a **Minor-Moderate (adverse)** significance of effect for residents and a **Minor (adverse)** significance of effect for road users. Albeit, with the potential to rise to a **Moderate (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users (worst case scenario).

During Operation

- 6.6.15. There will be a clear view of the upper elevation of the ERF building and stack against the skyline, seen at an acute angle. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. Direct views of the lower parts of the proposed built form will be limited by screen bunds within the Site and by intervening landform and vegetation outwith.
- 6.6.16. The Development will introduce new elements which will form a recognisable change to the amenity but will not be intrusive within the overall scene. There will be a **Medium** magnitude of impact and a **Moderate (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users.

During Decommissioning

- 6.6.17. In this final phase, effects will be similar to that described during construction with views of intermittent crane movements etc. seen at the skyline. Whilst there will be no available views of Site activities relating to ground restoration. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting. Overall, magnitude of impact will be slightly lower than predicted in comparison to construction. There will be a **Small** magnitude of impact with a **Minor-Moderate (adverse)** significance of effect for residents and a **Minor (adverse)** significance of effect for road users.



Viewpoint Location 10 From Garreg Bank (lower), Trewern (Refer to Figures L36 to L38)

Current Situation

- 6.6.18. Viewpoint Location 10 is from Garreg Bank (lower) in Trewern and is to the north-east of the Site within close range (1.7km). The photograph is taken from a vehicle passing by alongside the public road. This constitutes a sequential view and is also representative of nearby residential properties. Receptors will include residents (ground floor locations/gardens) (**High** sensitivity) and road users (**Low** sensitivity).
- 6.6.19. The existing view (c.91mAOD) encompasses the immediate settlement area, beyond which the view expands and encompasses the slopes of Long Mountain and settlement at a lower level (e.g. residential properties, farmsteads and outbuildings). The route of the A458 which passes south of Trewern is defined by associated lighting and hedgerows. The Site forms part of an elevated area of landform which appears as part of the backdrop and includes the upper extents of woodland abutting the A458. The wooded hills of Crowther's Coppice and Allt Wood are prominent features at a further distance (Figure L36). The Site and its environs are shown in more detail in the single photograph enlargement (Figure L37).

The Development

- 6.6.20. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L38).

During Construction

- 6.6.21. Crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF will be seen at the skyline. Potential views will be available of ground modelling within the central environs of the Site relating to the restored northern quarry face. The screen bund along Sale Lane will be completed, grass seeded and planted with native broadleaved trees. There will be a **Medium to Large** magnitude of impact and a **Moderate to Major (adverse)** significance of effect for residents and a **Moderate (adverse)** significance of effect for road users.

During Operation

- 6.6.22. There will be a clear view of the upper elevation of the ERF building and stack against the skyline seen at an acute angle. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. Direct views of the lower parts of the ERF building and stack will be limited by intervening vegetation. The Development will introduce new elements which will be noticeable in the scene and will affect the overall impression of the view. There will be a **Medium to Large** magnitude of impact and a **Moderate to Major (adverse)** significance of effect for residents and a **Moderate (adverse)** significance of effect for road users.



During Decommissioning

- 6.6.23. In this final phase, effects will be similar to that described during construction with views of crane movements etc. seen at the skyline. Whilst there will be a lack of available views of Site activities relating to ground restoration. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting. This will result in a **Medium** magnitude of impact and a **Moderate to Major (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users.

Viewpoint Location 11 From Garreg Bank (upper), Trewern (Refer to Figures L39 to L41)

Current Situation

- 6.6.24. Viewpoint Location 11 is from Garreg Bank (upper) in Trewern and is to the north-east of the Site within close range (1.9km). It is at a slightly further distance and higher elevation than Viewpoint Location 10. A number of residential properties are located on the northern side of Garreg Bank. The photograph is taken from a hedgerow gap adjacent to the roadside close to a track which leads to Upper Farm. This demonstrates a sequential view and is also representative of nearby residential properties. However, direct south-westerly views of the Site may be restricted by localised vegetation and outbuildings. Receptors will include residents (upper floor windows) (**Medium** sensitivity) and road users (**Low** sensitivity).
- 6.6.25. The existing view (c.110mAOD) encompasses nearby agricultural fields crossed by telegraph posts and residential areas in Trewern. The view expands beyond the village and includes agricultural fields and woodland at both a higher (due to Long Mountain) and lower level. Settlement elsewhere consists of villages together with individual residential properties, farmsteads and outbuildings. The A458 which passes south of Trewern is defined by associated lighting and hedgerows. The Site forms part of a higher area of landform which includes the upper extents of woodland abutting the A458. This elevated location permits a view of the central environs of the Site. The wooded slopes of Crowther's Coppice and Allt Wood are prominent features at a further distance (Figure L39). This is shown in more detail through the single photograph enlargement (Figure L40).

The Development

- 6.6.26. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L41).

During Construction

- 6.6.27. Crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF will be seen at the skyline. The screen bund along Sale Lane will be completed, grass seeded and planted with native broadleaved trees.



- 6.6.28. The Development will introduce new elements which will constitute a minor component of the wider view and will not affect the overall quality of the scene. Usually, activities such as crane movements etc. at the skyline would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase from a **Small** to a **Medium** level. Generally, there will be a **Minor-Moderate (adverse)** significance of effect for residents and a **Minor (adverse)** significance of effect for road users. Albeit, with the potential to rise to a **Moderate (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users (worst case scenario).

During Operation

- 6.6.29. There will be a clear view of the upper elevation and roofline of the ERF building against a backdrop of distant higher ground and the stack against the skyline. Direct views of the lower parts of the proposed built form will be limited by intervening vegetation. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The Development will introduce new elements which will form a recognisable change to the amenity but will not be intrusive within the overall scene. There will be a **Medium** magnitude of impact and a **Moderate (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users.

During Decommissioning

- 6.6.30. In this final phase, effects will be similar to that described during construction with views of intermittent crane movements etc. seen at the skyline. Whilst there will be a lack of available views of Site activities relating to ground restoration. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting. Overall, magnitude of impact will be slightly lower than predicted in comparison to construction. There will be **Small** magnitude of impact resulting in a **Minor-Moderate (adverse)** significance of effect for residents and a **Minor (adverse)** significance of effect for road users.

Viewpoint Location 12 From Criggion Lane, Trewern (Refer to Figures L42 to L44)

Current Situation

- 6.6.31. Viewpoint Location 12 is from Criggion Lane in Trewern and is to the north-east of the Site within close range (1.7km). The photograph is taken from a grass verge along Criggion Lane on the north-western edge of the village and is at a lower elevation than Viewpoint Location 10 and 11. It demonstrates a typical open view which is available in the village at a lower level. Several residential properties are situated along Criggion Lane (e.g. Grovewood, Oakland, The Willows and Cedarcrest). However, direct south-westerly views may be restricted by localised vegetation and outbuildings. Receptors will include residents (upper floor windows) (**Medium** sensitivity) and road users (**Low** sensitivity). This represents generally a static rather than a sequential view.



- 6.6.32. The existing view (c.70mAOD) comprises a foreground of low lying agricultural fields (pasture) bordered by hedgerows and hedgerow trees. The Site forms part of an elevated area of landform which includes the upper extents of woodland abutting the A458. A glimpsed view is possible of the northern edge of the existing quarry against the skyline whilst the main Site area is hidden from view. Long Mountain dominates the view to the left of the photograph and the wooded slopes of Crowther's Coppice and Allt Wood are present at a further distance (Figure L42). The Site and its environs are shown in more detail in the single photograph enlargement (Figure L43).

The Development

- 6.6.33. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L44).

During Construction

- 6.6.34. Crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF will be seen at the skyline. The screen bund along Sale Lane will be completed, grass seeded and planted with native broadleaved trees. Glimpsed views may be possible of associated earthworks. Overall, only a limited part of the Development will be discernible in part, due to the angle of view.
- 6.6.35. Usually, activities such as crane movements etc. at the skyline would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase from a **Very Small** to a **Small** level. Generally, there will be a **Minor (adverse)** significance of effect for residents and a **Negligible (adverse)** significance of effect for road users. Albeit, with the potential to rise to a **Minor-Moderate (adverse)** significance of effect for residents and a **Minor (adverse)** significance of effect for road users (worst case scenario).

During Operation

- 6.6.36. There will be a clear view of the ERF building and stack against the skyline seen at an acute angle. Direct views of the lower parts of the proposed built form will be limited by intervening vegetation. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The Development will introduce new elements which will form a recognisable change to the amenity but will not be intrusive within the overall scene. There will be a **Medium** magnitude of impact and a **Moderate (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users.



During Decommissioning

- 6.6.37. In this final phase, effects will be similar to that described during construction with views of intermittent crane movements etc. seen at the skyline. Whilst there will be a lack of available views of Site activities relating to ground restoration. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting. Overall, magnitude of impact will be slightly lower than predicted in comparison to construction. There will be a **Very Small** magnitude of impact resulting in a **Minor (adverse)** significance of effect for residents and a **Negligible (adverse)** significance of effect for road users.

Viewpoint Location 13 From lane at Golfa Bank and adjacent to The Old Shop Cottage (Refer to Figures L45 to L47)

Current Situation

- 6.6.38. Viewpoint Location 13 is from a lane at Golfa Bank and is to the north-east of the Site within close range (2.3km). The photograph is taken from a field gateway. It demonstrates the context of the view both along the A458 and from adjoining houses along the route. A residential property, The Old Shop Cottage is adjacent to the lane and will potentially have comparable views, mainly from upper floor windows. Direct south-westerly views may be restricted by localised vegetation and outbuildings. Receptors will include residents (upper floor windows) (**Medium** sensitivity) and road users (**Low** sensitivity). Glimpsed views are gained over nearby hedgerows and due to the gateways along the lane to the south-east. However, for the most part this is a static rather than sequential view.
- 6.6.39. The photograph (c.90mAOD) is taken close to a gateway and the foreground consists of a large arable agricultural field crossed by telegraph posts. The view then expands and becomes more wooded. The Site forms part of an elevated area of landform which appears as part of the backdrop and includes the upper extents of woodland abutting the A458. The partially formed screen bund along the eastern Site boundary adjacent to Sale Lane can be identified and there is a glimpsed view of the central environs of the Site seen against the skyline. Landform rises notably to the left of the photograph due to the Long Mountain and at a further distance given the presence of the wooded slopes of Crowther's Coppice and Allt Wood (Figure L45). The Site and its environs are shown in more detail through the single photograph enlargement (Figure L46).

The Development

- 6.6.40. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L47).

During Construction

- 6.6.41. Crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF will be seen at the skyline. The screen bund along Sale Lane will be completed, grass seeded and planted with native broadleaved trees.



- 6.6.42. The Development will introduce new elements which will constitute a minor component of the wider view and will not affect the overall quality of the scene. Usually, activities such as crane movements etc. at the skyline would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase from a **Small** to a **Medium** level. Generally there will be a **Minor-Moderate (adverse)** significance of effect for residents and a **Minor (adverse)** significance of effect for road users. Albeit, with the potential to rise to a **Moderate (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users (worst case scenario).

During Operation

- 6.6.43. There will be a clear view of the ERF building and stack against the skyline seen at an acute angle. Whilst lower levels of proposed built form will be screened by a combination of the screen bund and also vegetation outwith the Site. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The Development will introduce new elements which will form a recognisable change to the amenity but will not be intrusive within the overall scene. There will be a **Medium** magnitude of impact and a **Moderate (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users.

During Decommissioning

- 6.6.44. In this final phase, effects will be similar to that described during construction with views of intermittent crane movements etc. seen at the skyline. Whilst there will be a lack of available views of Site activities relating to ground restoration. Native woodland planting associated with the screen bunds will provide screening benefits as it matures and long term enhancement including with regards to the wider Site setting. Overall, magnitude of impact will be slightly lower than predicted in comparison to construction. There will be a **Small** magnitude of impact resulting in a **Minor-Moderate (adverse)** significance of effect for residents and a **Minor (adverse)** significance of effect for road users.

Viewpoint Location 14 From Bacheldre Lane adjacent to Oak Grange (Refer to Figures L48 to L50)

Current Situation

- 6.6.45. Viewpoint Location 14 is from Bacheldre Lane, near Middletown and is to the east of the Site within medium range (3.5km).
- 6.6.46. The route south of the main railway line has a limited number of residential properties and farmsteads including Oak Grange. Direct westerly views from the property may be restricted by localised vegetation and outbuildings. Glimpsed views are possible along the higher ground near Middletown Farm which is further south along Bacheldre Lane and elsewhere on the route. However, the denser proportion of woodland and other vegetation restricts outward views. The extent of the ZTV in this locality is more limited than the mapped area shown on Figure L7.



- 6.6.47. The photograph is taken adjacent to Oak Grange and is located at a point of greatest visibility in this locality and represents a static rather than sequential view. Receptors will include residents (ground floor locations/gardens) (**High** sensitivity) and road users (**Low** sensitivity).
- 6.6.48. The existing view (c.135mAOD) encompasses the immediate environs of Oak Grange and agricultural fields bordered by hedgerows and hedgerow trees. The scene has a well wooded appearance due in part to a combination of woodland adjacent to the railway line, along watercourses and the wooded slopes of Moel y Golfa. The Site forms part of an elevated area of landform which includes the upper extents of woodland abutting the A458. The partially formed screen bund along the eastern Site boundary adjacent to Sale Lane can be identified and there is a glimpsed view of the central environs of the Site. Higher ground is prevalent to the left of the photograph and at a further distance due to the wooded slopes of Crowther's Coppice and Allt Wood which form part of the backdrop (Figure L48). This is shown in more detail through the single photograph enlargement (Figure L49).

The Development

- 6.6.49. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L50).

During Construction

- 6.6.50. Crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF will be seen. The screen bund along Sale Lane will be completed, grass seeded and planted with native broadleaved trees. There will be a **Small** magnitude of impact and a **Moderate (adverse)** significance of effect for residents and a **Minor (adverse)** significance of effect for road users.

During Operation

- 6.6.51. There will be a clear view of the upper elevation and roofline of the ERF building and the stack against a backdrop of higher ground seen at an acute angle. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The lower levels of the ERF building and stack will be screened by the screen bund. The Development will feature new elements which represents a minor component of the wider view and will not affect the overall quality of the scene. There will be a **Small** magnitude of impact and a **Moderate (neutral)** significance of effect for residents and a **Minor (neutral)** significance of effect for road users.

During Decommissioning

- 6.6.52. In this final phase, effects will be similar to that described during construction with views of crane movements etc. against a landform backdrop. Whilst there will be a lack of available views of Site activities relating to ground restoration. The same results will apply.



Viewpoint Location 15 From A458 west of Wollaston (Refer to Figures L51 to L53)

Current Situation

- 6.6.53. Viewpoint Location 15 is from the A458 near Wollaston and is to the east of the Site within medium range (5.6km). It illustrates the eastern edge of the ZTV (Figure L7). The photograph is taken from a gateway alongside the A458 which is a key tourist route from Wales to Shropshire. This represents part of a sequential view along the A458 rather than from the nearby Orchard School Care Home and residential properties. Receptors will include road users (**Low** sensitivity).
- 6.6.54. The existing view (c.142mAOD) comprises a foreground of agricultural fields (pasture) and hedgerows. The scene has a well wooded appearance due in part to a combination of woodland adjacent to the railway line, along watercourses and the steep wooded slopes of Moel y Golfa (403mAOD). At a further distance, the main Site area is hidden from view. Long Mountain dominates the left of the photograph and the wooded slopes of Crowther's Coppice and Allt Wood form part of the backdrop (Figure L51). This is shown in more detail through the single photograph enlargement (Figure L52).

The Development

- 6.6.55. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L53).

During Construction

- 6.6.56. Views of crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF may be perceived. However, views of ground modelling and earthworks within the Site will not be available due to intervening terrain and vegetation. The Development will not materially alter the existing view. There will be a **Negligible** magnitude of impact and a **Negligible (adverse)** significance of effect for road users.

During Operation

- 6.6.57. The ERF and majority of the stack will be hidden. A glimpsed view of the upper section of the stack will be possible against a backdrop of higher ground. Overall, only a limited part of the Development will be discernible due to the distance involved and angle of view. This will result in a **Very Small** magnitude of impact and a **Negligible (neutral)** significance of effect for road users.

During Decommissioning

- 6.6.58. In this final phase, effects will be similar to that described during construction with views of crane movements etc. seen against a landform backdrop. There will be a **Negligible** magnitude of impact and a **Negligible (adverse)** significance of effect for road users.



Viewpoint Location 16 From Moel y Golfa (Refer to Figures L54 to L56)

Current Situation

- 6.6.59. Viewpoint Location 16 is from a public footpath on Moel y Golfa and is to the north-east of the Site within close range (3km). Although the ZTV indicates a broad area of visibility, existing mature woodland acts as a significant visual barrier (Figure L6). The route is generally less accessible than that to the summit of Middletown Hill (Viewpoint Location 17) and is not as visually sensitive in comparison due to its wooded surroundings. The photograph is taken from a woodland clearing on the route. It represents a static view along the footpath, rather than a sequential view. Receptors will include footpath users (**Medium** sensitivity).
- 6.6.60. This panoramic view (c.350mAOD) is from just below the summit and looks across extensive areas of mixed woodland. At a lower level, is a pattern of agricultural fields bounded by hedgerows, small tracts of woodland and settlement, primarily along the A458 and more dispersed elsewhere. The Site forms part of a wider area of raised ground which also includes woodland abutting the A458. The partially formed screen bund along the eastern Site boundary adjacent to Sale Lane can be identified and there is a view of the central environs of the Site. Long Mountain dominates the left of the photograph and the wooded slopes of Crowther's Coppice and Allt Wood form part of the backdrop (Figure L54). This is shown in more detail through the single photograph enlargement (Figure L55).

The Development

- 6.6.61. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L56).

During Construction

- 6.6.62. Views will be possible of crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF. Ground modelling within the central environs of the Site including the formation of the screen bund immediately south of the ERF building and restored northern quarry face will be in view. Potential views also entail the temporary storage of materials in Laydown Area 4. Whilst screen bunds including along Sale Lane will be grass seeded and planted with native broadleaved trees. The Development will introduce new elements which will form a recognisable change to the amenity but will not be intrusive within the overall scene. There will be a **Medium** magnitude of impact and a **Moderate (adverse)** significance of effect for footpath users.



During Operation

- 6.6.63. There will be a clear view of the ERF building and the upper elevation of the stack against a backdrop of agricultural fields. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The Development will feature new elements which will represent a noticeable change to the visual amenity; albeit this will not impose on the wider setting. There will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect for footpath users.

During Decommissioning

- 6.6.64. In this final phase, effects will be similar to that described during construction with views of crane movements etc. seen against a landform backdrop. Whilst there will be a lack of available views of Site activities relating to ground restoration. Overall, magnitude of impact will be slightly lower than predicted in comparison to construction. There will be a **Small** magnitude of impact and a **Minor-Moderate (adverse)** significance of effect for footpath users.

Viewpoint Location 17 From Middletown Hill (Refer to Figures L57 to L59)

Current Situation

- 6.6.65. Viewpoint Location 17 is from the upper part of Middletown Hill and is to the north-east of the Site within medium range (5km). This is a locally well used and recognised viewing point and area of accessible land. From the top of Middletown Hill, an extensive 360 degree panoramic view is gained northwards to the Cheshire plains, eastwards across the Shropshire hills and plain and westwards to the Welsh hills. The view demonstrated is generally experienced from the upper levels of the Middletown Hill, but is also possible sequentially from the pathway downhill in a south-westerly direction. Receptors will include walkers (general recreation) (**Medium** sensitivity).
- 6.6.66. The existing view (c.367mAOD) encompasses the wooded slopes and top of Moel y Golfa which is a notable feature. At a lower elevation is a pattern of agricultural fields bounded by hedgerows, woodland blocks and settlement, primarily along the A458 and more dispersed elsewhere. Long Mountain dominates to the left of the photograph. The Site forms part of a wider area of raised ground which also includes woodland abutting the A458. A glimpsed view is possible of the partially formed screen bund along the eastern Site boundary adjacent to Sale Lane and the central environs of the Site (Figure L57). This is shown in more detail through the single photograph enlargement (Figure L58).

The Development

- 6.6.67. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L59).



During Construction

- 6.6.68. Glimpsed views will be possible of crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF. Ground modelling within the central environs of the Site including the formation of the screen bund immediately south of the ERF building and restored northern quarry face will be seen. Potential views also entail the temporary storage of materials in Laydown Area 4. Screen bunds including along Sale Lane will be grass seeded and planted with native broadleaved trees. There will be a **Small** magnitude of impact and a **Minor-Moderate (neutral)** significance of effect for footpath users.

During Operation

- 6.6.69. There will be a view of the upper elevation and roofline of the ERF building and the higher part of the stack against a backdrop of agricultural fields. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. More direct views of the lower elevations of the ERF building will be reduced by the screen bund along Sale Lane and existing woodland in the immediate vicinity of the Site. The Development will feature new elements which represents a minor component of the wider view and will not affect the overall quality of the scene. There will be a **Small** magnitude of impact and a **Minor-Moderate (neutral)** significance of effect as a result.

During Decommissioning

- 6.6.70. In this final phase, effects will be similar to that described during construction with views of crane movements etc. seen against a landform backdrop. Whilst there will be a lack of available views of Site activities relating to ground restoration. Overall, magnitude of impact will be slightly lower than predicted in comparison to construction. There will be a **Very Small** magnitude of impact and a **Minor (neutral)** significance of effect.

Viewpoint Location 18 From Rodney's Pillar (Refer to Figures L60 to L62)

Current Situation

- 6.6.71. Viewpoint Location 18 is from the south-western side of Rodney's Pillar on Breidden Hill and is to the north of the Site within medium range (5km). The immediate area is open and allows a good panoramic view. Access is available from a nearby public footpath at the base of Breidden Hill and is a popular destination for walkers. The photograph demonstrates a static view which is gained from the upper part of Breidden Hill. Receptors will include the established viewing point at Rodney's Pillar (**High** sensitivity).
- 6.6.72. The existing view (c.365mAOD) comprises the wooded slopes and top of Moel y Gofa which is a notable feature to the left of the photograph. At a lower elevation, is a pattern of agricultural fields bounded by hedgerows, woodland blocks and dispersed settlement which is framed by Long Mountain and at a further distance, the wooded slopes of Crowther's Coppice and Allt Wood. The Site forms part of a wider area of raised ground which also includes woodland abutting the A458.



- 6.6.73. A glimpsed view is possible of the partially formed screen bund along the eastern Site boundary adjacent to Sale Lane and the central environs of the Site (Figure L60). This is shown in more detail through the single photograph enlargement (Figure L61).

The Development

- 6.6.74. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L62).

During Construction

- 6.6.75. Partial views will be possible of crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF. Ground modelling within the central environs of the Site including the formation of the screen bund immediately south of the ERF building and restored northern quarry face will be in view. Likely views also entail the temporary storage of materials in Laydown Area 4. Screen bunds including along Sale Lane will be grass seeded and planted with native broadleaved trees.
- 6.6.76. The Development will introduce new elements which will constitute a minor component of the wider view and will not affect the overall quality of the scene. Usually, activities such as crane movements etc. would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase from a **Small** to **Medium** level. Generally, there will be a **Moderate (adverse)** significance of effect. Albeit, with the potential to rise to a **Moderate to Major (adverse)** significance of effect for receptors at Rodney's Pillar (worst case scenario).

During Operation

- 6.6.77. There will be a clear view of the upper elevation and roofline of the ERF building and the higher part of the stack against a backdrop of agricultural fields. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. More direct views of the lower elevations of proposed built form will be reduced by existing woodland in the immediate vicinity of the Site. The Development will feature new elements which represent a minor component of the wider setting and will not affect the general quality of the visual amenity. There will be a **Small** magnitude of impact and a **Moderate (neutral)** significance of effect as a result.

During Decommissioning

- 6.6.78. In this final phase, effects will be similar to that described during construction with views of intermittent crane movements etc. seen against a landform backdrop. Whilst there will be a lack of available views of Site activities relating to ground restoration. Overall, magnitude of impact will be slightly lower than predicted in comparison to construction. There will be a **Small** magnitude of impact and a **Moderate (adverse)** significance of effect.



6.7. VISUAL IMPACT ASSESSMENT - CLOSE RANGE VIEWS TO THE NORTH-WEST

Viewpoint Location 19 From public footpath near Coppice East Farm (near Pool Quay) (Refer to Figures L63 to L65)

Current Situation

- 6.7.1. Viewpoint Location 19 is from public footpath close to Coppice East Farm (near Pool Quay) and is to the north-west of the Site within close range (2.3km). The photograph is taken from the edge of an open field near a footpath stile. As the footpath continues south downhill towards the Montgomery Canal, views towards the Site are more restricted by mature vegetation. Open views are not gained until reaching its immediate environs along the Offa's Dyke Path National Trail (Viewpoint Location 21). This represents a static view from the route where an opening in vegetation allows a southerly view across the Severn Valley. It is also representative of views from Coppice East Farm. However, such views may be restricted by localised vegetation and outbuildings along with nearby woodland at Crowther's Coppice and Allt Wood. Receptors will include residents (ground floor locations/gardens) (**High** sensitivity) and footpath users (**Medium** sensitivity).
- 6.7.2. The footpath follows the edge of Allt Wood before linking to the Offa's Dyke Path National Trail and the Severn Way long distance footpath which run concurrently near the Montgomery Canal. The existing view (c.152mAOD) encompasses agricultural fields divided by hedgerows and linear woodland tracts including along the Montgomery Canal and River Severn. At a further distance, the landform begins to rise incorporating the agricultural fields and woodland tracts of the Long Mountain which provides a backdrop. The Site is viewed on the lower slopes along with the woodland abutting the A458. The eastern part of the Site is hidden by a combination of localised topography and woodland with glimpsed views of the western environs of the Site (Figure L63). This is shown in more detail through the single photograph enlargement (Figure L64).

The Development

- 6.7.3. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L65).

During Construction

- 6.7.4. There will be potential views of crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF. Albeit views of ground modelling and earthworks within the Site will not be available due to intervening terrain and vegetation. The Development will introduce new elements which will constitute a minor component of the wider view and will not affect the overall quality of the scene.



- 6.7.5. Usually, activities such as crane movements etc. would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase from a **Small** to **Medium** level. There will be a **Moderate to Major (adverse)** significance of effect for residents and a **Moderate (adverse)** significance of effect for footpath users (worst case scenario).

During Operation

- 6.7.6. There will be a clear view of the upper elevation and graduated roofline of the ERF building and the higher part of the stack against a backdrop of hills. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. More direct views of the lower elevations of proposed built form will be reduced by intervening terrain and woodland in the immediate vicinity of the Site. The Development will feature new elements which represent a minor component of the wider setting and will not affect the general quality of the visual amenity. There will be a **Small** magnitude of impact and a **Moderate (neutral)** significance of effect for residents and a **Minor-Moderate (neutral)** significance of effect for footpath users.

During Decommissioning

- 6.7.7. In this final phase, effects will be similar to that described during construction with intermittent views of crane movements seen against a landform backdrop. Overall, magnitude of impact will be slightly lower than predicted in comparison to construction. There will be a **Small** magnitude of impact and a **Moderate (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for footpath users.

Viewpoint Location 20 From A483 at Pool Quay (Refer to Figures L66 to L68)

Current Situation

- 6.7.8. Viewpoint Location 20 is from the A483 at Pool Quay and is to the north-west within close range (1.8km).
- 6.7.9. Offa's Dyke Path National Trail and the Severn Way long distance footpath run concurrently and pass along a short section of the A483. The photograph is taken from a gateway on the edge of the public road and adjacent to the footpath stile. Receptors will include Offa's Dyke Path National Trail users (**High** sensitivity) and road users (**Low** sensitivity). The photograph is not representative of view from the Trail on the Montgomery Canal towpath where glimpsed views are possible, albeit more occasionally screened by woodland tracts. The views from the A483 are generally gained south of Pool Quay and for a length of c.2km towards The Moors farmstead. This represents an intermittent sequential experience.



- 6.7.10. The existing view (c.70mAOD) consists of agricultural fields (pasture) divided by hedgerows and hedgerow trees. At a further distance, the view expands of woodland along the course of the River Severn and elsewhere at a low level. Landform then begins to rise and the agricultural fields and woodland tracts of Long Mountain provide a backdrop. The Site is viewed on the lower slopes along with the woodland abutting the A458. The eastern part of the Site is hidden by a combination of localised topography and woodland (Figure L66). This is shown in more detail through the single photograph enlargement (Figure L67).

The Development

- 6.7.11. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L68).

During Construction

- 6.7.12. Views will be possible of crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF. Albeit views of ground modelling and earthworks within the Site will not be available due to intervening terrain and vegetation.
- 6.7.13. The Development will introduce new elements which will constitute a minor component of the wider view and will not affect the overall quality of the scene. Usually, activities such as crane movements etc. would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase from a **Small** to **Medium** level. Generally, there will be a **Moderate (adverse)** significance of effect for Trail users and a **Minor (adverse)** significance of effect for road users. Albeit, with the potential to rise to a **Moderate to Major (adverse)** significance of effect for Trail users and a **Minor-Moderate (adverse)** significance of effect for road users (worst case scenario).

During Operation

- 6.7.14. There will be a clear view of the upper elevation and graduated roofline of the ERF building and the higher part of the stack against a backdrop of hills. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. More direct views of the lower elevations of the ERF building and stack will be reduced by intervening terrain and woodland in the immediate vicinity of the Site. The Development will feature new elements which represent a minor component of the wider setting and will not affect the general quality of the visual amenity. There will be a **Small** magnitude of impact and a **Moderate (neutral)** significance of effect for Trail users and a **Minor (neutral)** significance of effect for road users.



During Decommissioning

- 6.7.15. In this final phase, effects will be similar to that described during construction with intermittent views of crane movements seen against a landform backdrop. Overall, magnitude of impact will be slightly lower than predicted in comparison to construction. There will be a **Small** magnitude of impact and a **Moderate (adverse)** significance of effect for Trail users and a **Minor (adverse)** significance of effect for road users.

Viewpoint Location 21 From A483 near Pool Quay at Strata Marcella Abbey (Refer to Figures L69 to L71)

Current Situation

- 6.7.16. Viewpoint Location 21 is from the A483 near Pool Quay at Strata Marcella Abbey and is to the north-west of the Site within close range (1.8km).
- 6.7.17. The Montgomery Canal follows higher ground when compared to the A483 and other viewpoint locations in the Severn Valley. Therefore, it offers a better opportunity to view across the Severn Valley and towards the Site.
- 6.7.18. At this Viewpoint Location, the Montgomery Canal and open aspect demonstrates a direct view towards the Site. The photograph is taken from the canal path immediately alongside the A483. This represents a sequential view as there are some more open views along the edge of the Montgomery Canal and adjacent to 'The Moors Straight' which is a local reference to the straight road (A483), north of The Moors farmstead. The site of the former Strata Marcella Abbey now consists of farmland and is categorised as a Scheduled Monument (Reference MG120).³⁵ However, comparable views are not available due to the lower elevation and it also has limited public access. Receptors will include Offa's Dyke Path National Trail users (**High** sensitivity) and road users (**Low** sensitivity).
- 6.7.19. The existing view (c.75mAOD) comprises agricultural fields (pasture) divided by hedgerows and interspersed with field trees. At a further distance, the view expands of woodland along the course of the River Severn and elsewhere at a low level. Landform then begins to rise and the agricultural fields and woodland tracts of the Long Mountain provide a backdrop. The Site is viewed on the lower slopes along with the woodland abutting the A458. The eastern part of the Site is hidden by a combination of localised topography and woodland whilst a glimpsed view is possible of the western part of the Site. To the left of the photograph, farm outbuildings are present in the foreground and the steep wooded slopes of Moel y Golfa is a notable feature (Figure L69). The Site and its environs are shown in more detail through the single photograph enlargement (Figure L70).
- 6.7.20. Intervening terrain and vegetation adjacent to the Site plays an important role in reducing potential effects.

The Development

- 6.7.21. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L71).

³⁵ National Monuments Record of Wales, <https://coflein.gov.uk>, sourced July 2020



During Construction

- 6.7.22. There will be partial views of crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF, albeit they will be difficult to identify. Whilst views of ground modelling and earthworks within the Site will not be available. The Development will not materially alter the existing view. There will be a **Negligible** magnitude of impact resulting in a **Negligible (adverse)** significance of effect for Trail users and road users.

During Operation

- 6.7.23. Views of the ERF building and majority of the stack are limited with the upper part of the stack seen above the treeline. Overall, only a small part of the Development will be discernible. There will be a **Very Small** magnitude of impact and a **Minor (neutral)** significance of effect for Trail users and a **Negligible (neutral)** significance of effect for road users.

During Decommissioning

- 6.7.24. In this final phase, effects will be similar to that described during construction with partial views of crane movements etc. seen against a landform backdrop. There will be a **Negligible** magnitude of impact resulting in a **Negligible (adverse)** significance of effect for receptors.

6.8. VISUAL IMPACT ASSESSMENT - CLOSE AND MEDIUM RANGE VIEWS TO THE SOUTH-WEST

Viewpoint Location 22 From A458 at Buttington Bridge (Refer to Figures L72 to L74)

Current Situation

- 6.8.1. Viewpoint Location 22 is from the A458 at Buttington Bridge and is to the south-west of the Site within close range (2.4km). The photograph is taken from a grass verge immediately north of Buttington Bridge.
- 6.8.2. A small section of the Offa's Dyke Path National Trail passes along Buttington Bridge. In the immediate vicinity is Welshpool Livestock Sales and Buttington Cross Enterprise Park (south-west). The alignment of the A458 allows a sequential view from the vicinity of Buttington Bridge and travelling eastwards towards the Site almost to a point immediately south of the road junction with Sale Lane. However, as the road user progresses northwards, the Site has less visual consequence. Receptors will include Offa's Dyke Path National Trail users (**High** sensitivity) together with workers at nearby employment areas and road users (**Low** sensitivity). It represents a sequential view along this section of the A458.
- 6.8.3. The existing view (c.70mAOD) consists of the A458 and adjacent agricultural fields bordered by hedgerows and small woodland copses and traversed by overhead power lines. At a further distance, the view expands and landform then begins to rise. The agricultural fields and woodland tracts on the lower slopes of Long Mountain form part of the background.



- 6.8.4. Views are possible of the western part of the Site framed by woodland, whilst the central environs of the Site are hidden by intervening vegetation and topography. The wooded slopes and summits of Breidden Hill, Middletown Hill and Moel y Golfa are prominent features to the left of the photograph (Figure L72). This is shown in more detail through the single photograph enlargement (Figure L73).

The Development

- 6.8.5. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L74).

During Construction

- 6.8.6. Views will be possible of crane movements and other aspects (e.g. building construction and scaffolding) associated with the building of the ERF at the skyline. The Development will introduce new elements which will be noticeable in the scene and will affect the overall impression of the view. Consequently, there will be a **Medium to Large** magnitude of impact with a **Moderate to Major (adverse)** significance of effect for Trail users and a **Moderate (adverse)** significance of effect for workers at nearby employment areas and road users.

During Operation

- 6.8.7. There will be a clear view of the stack and the upper elevations of the ERF building against the skyline seen at an acute angle. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The Development will feature new elements which will represent a noticeable change to the visual amenity; albeit this will not impose on the wider setting. There will be a **Medium** magnitude of impact and a **Moderate to Major (adverse)** significance of effect for Trail users and a **Minor-Moderate (adverse)** significance of effect for workers at nearby employment areas and road users.

During Decommissioning

- 6.8.8. In this final phase, there will be views of crane movements etc. at the skyline. Overall, magnitude of impact will be slightly lower than predicted in comparison to construction. There will be a **Medium** magnitude of impact and a **Moderate to Major (adverse)** significance of effect for Trail users and a **Minor-Moderate (adverse)** significance of effect for workers at nearby employment areas and road users.



Viewpoint Location 23 From B4381 at Welshpool (Refer to Figures L75 to L77)

Current Situation

- 6.8.9. Viewpoint Location 23 is from the B4381 at Welshpool and is to the south-west of the Site within medium range (5km). The B4381 (Severn Way) provides access to the nearby Severn Farm Industrial Estate. Broad views within the urban environs of Welshpool including directly towards the Site are restricted by built form. Some isolated views may be possible from residential areas north of the A458 and off Red Bank, notably from Adelaide Drive and Borfa Green. However, the view over the bridge and the railway line whilst being a static view, is probably best representative from upper floor windows and glimpsed open views within the urban areas of Welshpool. The photograph is taken from the northern side of the bridge on the roadside. Receptors will include residents (upper floor windows) (**Medium** sensitivity) and road users (**Low** sensitivity).
- 6.8.10. The existing view (c.75mAOD) encompasses the immediate environs of Welshpool Railway Station and transport routes (road and rail) which are bordered by large-scale industrial buildings and stacks, storage areas and a telecommunications mast. The Site can just be perceived above the rooflines. Crowther's Coppice and Allt Wood together with Breidden Hill, Middletown Hill and Moel y Golfu at a further distance are prominent features and form the background (Figure L75). This is shown in more detail through the single photograph enlargement (Figure L76).

The Development

- 6.8.11. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L77).

During Construction

- 6.8.12. There will be potential views of crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF. Usually, such activities would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase from a **Small** to a **Medium** level. The Development will introduce new elements which will constitute a minor component of the wider view and will not affect the overall quality of the scene. Generally, there will be a **Minor-Moderate (neutral)** significance of effect for residents and a **Minor (neutral)** significance of effect for road users. Albeit, with the potential to rise to a **Moderate (neutral)** significance of effect for residents and a **Minor-Moderate (neutral)** significance of effect for road users (worst case scenario).

During Operation

- 6.8.13. There will be a glimpsed view of the upper elevation of the ERF building and stack against a backdrop of higher ground seen at an acute angle. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting at a distance.



- 6.8.14. The Development will feature new elements which represent a minor component of the wider setting and will not affect the general quality of the visual amenity. There will be a **Small** magnitude of impact and a **Minor-Moderate (neutral)** significance of effect for residents and a **Minor (neutral)** significance of effect for road users.

During Decommissioning

- 6.8.15. In this final phase, effects will primarily concern intermittent views of crane movements. Whilst Site activities relating to ground restoration will be difficult to discern given the distance involved and angle of view. There will be a **Small** magnitude of impact and a **Minor-Moderate (neutral)** significance of effect for residents and a **Minor (neutral)** significance of effect for road users.

6.9. VISUAL IMPACT ASSESSMENT - LONG RANGE VIEWS TO THE SOUTH-WEST

Viewpoint Location 24 From Powis Castle, Welshpool (Refer to Figures L78 to L80)

Current Situation

- 6.9.1. Viewpoint Location 24 is from Powis Castle near Welshpool and is to the south-west of the Site within long range (6.4km). The architectural and scenic merits of Powis Castle and its gardens hold the viewer to scrutinise close range views rather than the available distant backdrop. Thus, the property itself is the key feature. The background composition is an important character facet, but the sensitivity of these areas is subservient to the overall Powis Castle estate. The predominant aspect across the Severn Valley is eastwards whereas, the Site is to the north-east. Static views are found at limited points within the garden terracing whilst views from Powis Castle itself are constrained, in part due to the main viewing alignment to the east. The photograph is taken from the upper garden terrace on the north-eastern side of Powis Castle. Receptors will include visitors to Powis Castle (National Trust) which is also categorised as a Grade I Registered Park and Garden of Special Historic Interest in Wales (**Very High** sensitivity).
- 6.9.2. The photograph is taken from a terraced area (c.138mAOD) which provides expansive views across ornamental gardens and parkland. At a further distance are the environs of Welshpool including residential areas and industrial buildings. Agricultural fields and small woodland tracts then predominate interspersed with isolated farmsteads. Industrial buildings along the A483 north of Welshpool can just be seen. A glimpsed view of the Site is possible against a wooded background which merges with the lower slopes of Moel y Golfa. The Powis Castle estate is sufficiently distanced from the Site to offer no direct visual link or association and it is also seen in a wider context. Long Mountain with its large areas of coniferous woodland is a notable feature and provides part of the backdrop (Figure L78). This is shown in more detail through the single photograph enlargement (Figure L79).



The Development

- 6.9.3. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L80).

During Construction

- 6.9.4. There will be potential views of crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF together with ground modelling within the Site. The Development will introduce new elements which will constitute a minor component of the wider view and will not affect the overall quality of the scene. Usually, activities such as crane movements etc. would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase from a **Small** to **Medium** level. Generally, a **Moderate (neutral)** significance of effect will apply albeit, with some **Major (neutral)** significance of effects for visitors to Powis Castle (worst case scenario).

During Operation

- 6.9.5. There will be potential views of the upper elevations of the ERF building and stack against a backdrop of higher ground seen at an acute angle. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The Development will feature new elements which represent a minor component of the wider setting and will not affect the general quality of the visual amenity. There will be a **Small** magnitude of impact and a **Moderate (neutral)** significance of effect for visitors to Powis Castle.

During Decommissioning

- 6.9.6. In this final phase, effects will primarily concern intermittent views of crane movements. Site activities relating to ground restoration will be difficult to discern given the distance involved and angle of view. There will be a **Small** magnitude of impact and a **Moderate (neutral)** significance of effect.

Viewpoint Location 25 From Y Golfa (Welshpool Golf Club) (Refer to Figures L81 to L83)

Current Situation

- 6.9.7. Viewpoint Location 25 is from Y Golfa (Welshpool Golf Club) and is to the south-west of the Site within long range (8.9km).
- 6.9.8. This is a static view from the trig point adjacent to Welshpool Golf Club and provides a panoramic 360 degree view. It should be noted that the photograph is taken from a footpath near to the trig point and is not directly on the Glyndwr's Way National Trail which passes just to the south at a slightly lower elevation. Receptors will include footpath users on the general footpath network (**Medium** sensitivity).



- 6.9.9. The panoramic scene (c.330mAOD) encompasses large tracts of mature woodland at Y Golfa which expands to incorporate a pattern of agricultural fields bounded by hedgerows and interspersed by small woodland blocks. Larger tracts of woodland feature on higher ground including in relation to Long Mountain and also at Breidden Hill, Middletown Hill and Moel y Golfa at a further distance which provide a backdrop. Industrial buildings along the A483 north of Welshpool can just be seen. A glimpsed view of the Site is possible against a wooded background (Figure L81). This is shown in more detail through the single photograph enlargement (Figure L82).
- 6.9.10. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L83).

During Construction

- 6.9.11. There will be potential views of crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF together with ground modelling within the Site.
- 6.9.12. The Development will introduce new elements which will constitute a minor component of the wider view and will not affect the overall quality of the scene. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase from a **Small** to **Medium** level due to crane movements etc. Generally, a **Minor-Moderate (neutral)** significance of effect will apply albeit, with some **Moderate (neutral)** significance of effects for footpath users (worst case scenario).

During Operation

- 6.9.13. There will be a limited view of the stack and upper elevations of the ERF building against a backdrop of higher ground seen at an acute angle. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. Overall, only a limited part of the Development will be discernible given the distance involved and angle of view. There will be a **Very Small** magnitude of impact and a **Minor (neutral)** significance of effect for footpath users.

During Decommissioning

- 6.9.14. In this final phase, effects will primarily concern intermittent views of crane movements. Site activities relating to ground restoration will be difficult to discern. There will be a **Very Small** magnitude of impact and a **Minor (neutral)** significance of effect.

Viewpoint Location 26 From A483 at Rhiw Bridge (Berriew) (Refer to Figures L84 to L86)

Current Situation

- 6.9.15. Viewpoint Location 26 is from the A483 at Rhiw Bridge (Berriew) and is to the south-west of the Site within long range (12km). The photograph is taken from a grass verge adjacent to the A483. It is illustrative of a sequential view along the route and its environs for c.1km north of the village of Refail. It is also representative of potential views from the Severn Valley which consists of the main road network and key settlement areas. Receptors will include road users (**Low** sensitivity).



- 6.9.16. The existing view (c.80mAOD) comprises a foreground of an agricultural field bordered by a low hedgerow and trees fronting the A483. The view expands and includes farmsteads and residential properties together with a variety of associated outbuildings, shelterbelts and ornamental planting. At a further distance, the landform begins to rise, however, the Site is broadly hidden from view due to intervening topography and vegetation. More prominent is Long Mountain and Moel y Golfa which constitute the background (Figure L84). This is shown in more detail through the single photograph enlargement (Figure L85).

The Development

- 6.9.17. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L86).

During Construction

- 6.9.18. Views of crane movements associated with the building of the ERF will be hard to identify. Whilst ground modelling and earthworks within the Site will be hidden by intervening terrain and vegetation. No perceptible change will occur to the existing view due to the Development. Consequently, there will be **No Impact** for road users.

During Operation

- 6.9.19. Views of the ERF building will be restricted with only a glimpsed view of the stack at this long range. Albeit, the Development will not materially alter the existing view. There will be a **Negligible** magnitude of impact and a **Negligible (neutral)** significance of effect.

During Decommissioning

- 6.9.20. In this final phase, effects will be similar to that described during construction with no discernible change and **No Impact**.

Viewpoint Location 27 From public footpath between Y Brywydd and Castle Caereinion (Refer to Figures L87 to L89)

Current Situation

- 6.9.21. Viewpoint Location 27 is from a public footpath between Y Brywydd and Castle Caereinion and is to the south-west of the Site within long range (13.4km).
- 6.9.22. The route forms part of the wider footpath network between the two settlements. The photograph is taken from the public footpath as it passes through an open field and across a hill top, from which a 360 degree panorama is available. This represents a sequential view as the route descends the hill. It is also illustrative of views from the ridge above a residential property (Cefn Crin) and the lane that extends to the north-east towards the B4385 where visibility is restricted. Receptors will include footpath users (**Medium** sensitivity).



- 6.9.23. This open elevated location (c.370mAOD) permits expansive views of rolling hills and woodland interspersed by isolated farmsteads and residential properties. The Site forms part of a broader area, albeit it is difficult to discern at this distance. More prominent is Long Mountain together with Breidden Hill, Middletown Hill and Moel y Golfa which constitute the background (Figure L87). This is shown in more detail through the single photograph enlargement (Figure L88).

The Development

- 6.9.24. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L89).

During Construction

- 6.9.25. Views of crane movements during the building of the ERF and ground modelling within the Site will be difficult to discern given the distance involved and angle of view. The Development will not materially alter the existing view. There will be a **Negligible** magnitude of impact and a **Negligible (adverse)** significance of effect for footpath users.

During Operation

- 6.9.26. There will be a glimpsed view of the stack and upper elevations of the ERF building against a backdrop of higher ground. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. Overall, only a limited part of the Development will be discernible due to the angle of view and distance involved. There will be a **Very Small** magnitude of impact and a **Minor (neutral)** significance of effect.

During Decommissioning

- 6.9.27. In this final phase, effects will be similar to that described during construction and the same results will apply.

6.10. VISUAL IMPACT ASSESSMENT - MEDIUM AND LONG RANGE VIEWS TO THE NORTH, NORTH-EAST AND NORTH-WEST

Viewpoint Location 28 From A483 at Ardleen (Refer to Figures L90 to L92)

Current Situation

- 6.10.1. Viewpoint Location 28 is from the A483 which passes through the village of Ardleen and is to the north of the Site within medium range (5km).
- 6.10.2. The A483 travelling south of the village offers some opportunity for a sequential view towards the Site, although it is unavailable as demonstrated by the photograph. Thus, the Viewpoint Location represents a sequential view of the upper parts of the proposed ERF building and stack for a length of c.1.5km south of Ardleen and towards Pool Quay where the more open landscape allows southerly views. Nearby roadside farmsteads, residential properties and locations within the Severn Valley may gain comparable views.



6.10.3. The photograph is taken from a gateway alongside the public road. The location is near the junction with Rhyd-Esgyn Lane and opposite a residential property (bungalow) and a farmstead, Fraithwen. Receptors will include residents (upper floor windows) (**Medium** sensitivity) and road users (**Low** sensitivity).

6.10.4. The existing scene (c.63mAOD) comprises large agricultural fields divided by low hedgerows and field trees which border the A483. As landform rises it becomes more wooded, notably due to the presence of Moel y Golfaf. At a further distance, Long Mountain provides a backdrop. Views of the Site are restricted due to the intervening topography and vegetation immediately adjacent to the A458 (Figure L90). This is shown in more detail through the single photograph enlargement (Figure L91).

The Development

6.10.5. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L92).

During Construction

6.10.6. Sporadic views will be possible of crane movements associated with the building of the ERF. Albeit ground modelling and earthworks within the Site will not be available due to intervening terrain and vegetation.

6.10.7. Overall, the Development will not materially alter the existing view. Usually, activities such as crane movements etc. would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase from a **Negligible** to a **Very Small** due crane movements. Generally there will be a **Negligible** magnitude of impact and a **Negligible (adverse)** significance of effect for residents and road users. This may rise to a **Minor (adverse)** significance of effect for residents and a **Negligible (adverse)** significance of effect for road users (worst case scenario).

During Operation

6.10.8. There will be a glimpsed view of the upper elevations of the ERF building and stack against a backdrop of higher ground. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. Only a limited part of the Development will be discernible. There will be a **Very Small** magnitude of impact and a **Minor (neutral)** significance of effect for residents and a **Negligible (neutral)** significance of effect for road users.

During Decommissioning

6.10.9. In this final phase, effects will be similar to that described during construction and the same results will apply.



Viewpoint Location 29 From Castlehill Lane, Burgedin (Refer to Figures L93 to L95)

Current Situation

- 6.10.10. Viewpoint Location 29 is from Castlehill Lane at Burgedin and is to the north-west of the Site within medium range (5.7km). The photograph is taken from a raised verge alongside the public road. It represents a static view from break in the hedgerow which borders the route and may increase slightly in winter months. Glimpsed views are possible from other locations along the Lane where it traverses the higher ridge area and from nearby farmsteads. Receptors will include road users (**Low** sensitivity).
- 6.10.11. The existing view (c.176mAOD) encompasses gently rolling agricultural fields (pasture) divided by hedgerows and hedgerow trees. The landform declines along the River Severn and then begins to rise at a further distance culminating in Moel y Golfaf and the Long Mountain which provide a backdrop. The Site is broadly hidden from view due to the intervening topography and vegetation which is immediately adjacent to the A458 (Figure L93). This is shown in more detail through the single photograph enlargement (Figure L94).

The Development

- 6.10.12. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L95).

During Construction

- 6.10.13. Overall, the Development will not materially alter the existing view and a **Negligible** magnitude of impact will result. Albeit, views will be possible of crane movements at sporadic times. Usually, such activities would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase to a **Very Small** level and a **Negligible (adverse)** significance of effect for road users (worst case scenario).

During Operation

- 6.10.14. There will be a glimpsed view of the upper elevations of the ERF building and stack against a backdrop of higher ground. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The Development will not greatly change the current scene. There will be a **Negligible** magnitude of impact and a **Negligible (neutral)** significance of effect.

During Decommissioning

- 6.10.15. In this final phase, effects will be similar to that described during construction and the same results will apply.



Viewpoint Location 30 From the Severn Way, east of Trederwen (Refer to Figures L96 to L98)

Current Situation

- 6.10.16. Viewpoint Location 30 is from the Severn Way long distance footpath which is to the north-east of the Site within long range (6.3km). Although the Site is broadly hidden as demonstrated by the photograph, the Viewpoint Location represents a sequential view of the upper parts of the proposed ERF building and stack. It principally applies to the wider area mapped by the ZTV analysis (Figure L7), albeit direct views are often restricted by vegetation close to the viewer. It is also representative of other viewpoints from the lower lying Severn Valley and footpaths that cross the area. Receptors will include footpath users (**Medium** sensitivity).
- 6.10.17. The footpath follows the flood defence embankment alongside the River Severn. The existing view (c.60mAOD) encompasses a foreground of agricultural fields (pasture) and field trees bordering the course of the River Severn. The western edge of Breidden Hill comprises quarry working at Criggion Quarry with exposed faces and benches is a prominent feature. At a further distance, Long Mountain provides a backdrop. Intervening topography and vegetation which is immediately adjacent to the A458 restricts wider views of the Site (Figure L96). This is shown in more detail through the single photograph enlargement (Figure L97).

The Development

- 6.10.18. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L98).

During Construction

- 6.10.19. Overall, the Development will not materially alter the existing view and a **Negligible** magnitude of impact will result. Albeit, views will be possible of crane movements at sporadic times. Usually, such activities would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase to a **Very Small** level. This will result in a **Minor (neutral)** significance of effect (worst case scenario).

During Operation

- 6.10.20. There will be a glimpsed view of the upper elevations of the ERF building and stack against a backdrop of higher ground. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The Development will not greatly change the current scene. There will be a **Negligible** magnitude of impact and a **Negligible (neutral)** significance of effect.

During Decommissioning

- 6.10.21. In this final phase, effects will be similar to that described during construction and the same results will apply.



Viewpoint Location 31 From Llanymynech Hill (Refer to Figures L99 to L101)

Current Situation

- 6.10.22. Viewpoint Location 31 is from Llanymynech Hill and is to the north of the Site within long range (11.7km). The photograph is taken from a vantage point on a footpath adjacent to Llanymynech Golf Club on the edge of the golf course near to the former quarry face. South-west of the viewer and at a lower elevation is the Llanymynech Rocks Nature Reserve. Although the Site is hidden from view as demonstrated by the photograph, the Viewpoint Location represents a static view of the upper parts of the proposed ERF building and stack. There are other opportunities to gain comparable views nearby, but they are not considered a sequential experience. Receptors will include footpath users (**Medium** sensitivity) and recreation users at the golf course (**Low** sensitivity).
- 6.10.23. The photograph provides a panoramic scene (c.195mAOD) from the wooded edge of Llanymynech Hill to the settlement below and expands to encompass a pattern of relatively flat agricultural fields bordered by hedgerows and hedgerow trees. The A483 progresses southwards and at a further distance, the landform rises and encompasses Breidden Hill and Long Mountain together with hill formations to the south which provide a backdrop. Intervening topography and vegetation immediately adjacent to the A458 restricts views of the Site (Figure L99). This is shown in more detail through the single photograph enlargement (Figure L100).

The Development

- 6.10.24. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L101).

During Construction

- 6.10.25. Overall, the Development will not materially alter the existing view and a **Negligible** magnitude of impact will result. Albeit, views will be possible of crane movements at sporadic times. Usually, such activities would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase to a **Very Small** level. There will be a **Minor (neutral)** significance of effect for footpath users and a **Negligible (neutral)** significance of effect for recreation users at the golf course (worst case scenario).

During Operation

- 6.10.26. There will be a glimpsed view of the upper elevations of the ERF building and stack against a backdrop of higher ground. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The Development will not greatly change the current scene. There will be a **Negligible** magnitude of impact and a **Negligible (neutral)** significance of effect for receptors.

During Decommissioning

- 6.10.27. In this final phase, effects will be similar to that described during construction and the same results will apply.



Viewpoint Location 32 From Quarry Lane and Offa's Dyke Path, Nantmawr (Refer to Figures L102 to L104)

Current Situation

- 6.10.28. Viewpoint Location 32 is from Quarry Lane at Nantmawr and is to the north of the Site within long range (14.6km). The route provides access for a number of residential properties including Stone House and Vron Cottage which are close to the viewer. A section of the Offa's Dyke Path National Trail passes along Quarry Lane where the routes cross and the elevation permits a southerly view towards the Site. The photograph is taken alongside a footpath stile from a location on the public road. Although the Site is broadly hidden from view as demonstrated by the photograph, the Viewpoint Location represents a static view of the upper parts of the proposed ERF building and stack. Receptors will include footpath users on the Offa's Dyke Path National Trail and residents (ground floor locations/gardens) (**High** sensitivity).
- 6.10.29. The existing view (c.175mAOD) encompasses woodland and individual residential properties on the edge of the village of Nantmawr. A field pattern of agricultural fields divided by hedgerows and hedgerow trees predominates. As landform rises, it becomes more wooded, notably of the slopes of Llynclys Hill. At a further distance is Breidden Hill and Long Mountain together with hill formations to the south which provide a backdrop. Intervening topography and vegetation which is immediately adjacent to the A458 restricts views of the Site (Figure L102). This is shown in more detail through the single photograph enlargement (Figure L103).

The Development

- 6.10.30. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L104).

During Construction

- 6.10.31. Overall, the Development will not materially alter the existing view and a **Negligible** magnitude of impact will result. Albeit, views will be possible of crane movements at sporadic times. Usually, such activities would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase to a **Very Small** level. This will result in a **Minor (neutral)** significance of effect for Trail users and residents (worst case scenario).

During Operation

- 6.10.32. There will be a glimpsed view of the upper elevations of the ERF building and stack against a backdrop of higher ground. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The Development will not greatly change the current scene. There will be a **Negligible** magnitude of impact and **Negligible (neutral)** significance of effect for receptors.

During Decommissioning

- 6.10.33. In this final phase, effects will be similar to that described during construction and the same results will apply.



Viewpoint Location 33 From Green Hall Hill, Brynelltyn, Llanfyllin (Refer to Figures L105 to L107)

Current Situation

- 6.10.34. Viewpoint Location 33 is from Green Hall Hill at Brynelltyn and is to the north-west of the Site within long range (14.1km). The photograph is taken from a walked track and apparent lookout point on the eastern side of the hill. This represents a static view although there are a number of public footpaths nearby which cross Green Hall Hill and are close to the small town of Llanfyllin. Receptors will include walkers (general recreation) (**Medium** sensitivity).
- 6.10.35. The existing view (c.225mAOD) encompasses woodland on the edge of Green Hall Hill which expands over rolling agricultural fields divided by hedgerows and interspersed with small woodland blocks, isolated farmsteads and residential properties. As landform rises, it becomes more wooded, notably at Glan Frogan Hill and at a further distance at Breidden Hill and Long Mountain which provide a backdrop. The Site is broadly hidden from view due to the intervening topography and vegetation which is immediately adjacent to the A458. At this distance, it is only discernible on clear visibility days (Figure L105). This is shown in more detail through the single photograph enlargement (Figure L106).

The Development

- 6.10.36. The photomontage view illustrates the Development and incorporated mitigation measures (Figure L107).

During Construction

- 6.10.37. Overall, the Development will not materially alter the existing view and a **Negligible** magnitude of impact will result. Albeit, views will be possible of crane movements at sporadic times. Usually, such activities would be considered as a whole process. However, this assessment reflects a maximum level given the receptor sensitivity and magnitude of impact may increase to a **Very Small** level. This will result in a **Minor (neutral)** significance of effect for walkers (general recreation) (worst case scenario).

During Operation

- 6.10.38. There will be a glimpsed view of the upper elevations of the ERF building and stack against a backdrop of higher ground. With regards to mitigation measures, the natural colours of the cladding will assist in assimilating the proposed built form into a mainly rural visual setting. The Development will not greatly change the current scene. There will be a **Negligible** magnitude of impact and a **Negligible (neutral)** significance of effect as a result.

During Decommissioning

- 6.10.39. In this final phase, effects will be similar to that described during construction and the same results will apply.



6.11. VISUAL IMPACT ASSESSMENT - VIEWS FROM THE ACCESS ROAD

- 6.11.1. Viewpoint Locations 34 and 35 have been used to assess visual effects relating to the proposed site access (see Figures L108 and L109).
- 6.11.2. The construction of the site access will include removal of the embankment on the eastern side of the public highway together with some re-alignment of the road itself and widening to facilitate a ghost island junction for traffic turning eastwards into the Site. The resultant visual effect will be to broaden the overall width of the road, increase sightlines and visibility. This will create a more open and direct amenity compared to the current route which is more visually constrained by the wooded embankment and the existing bend which reduces the viewing distance along the road. It should be noted that there is no public footpath along the route where the highway alterations are proposed.
- 6.11.3. Viewpoint Location 34 looks northwards and is near to the point where the road will be widened, the ghost island created and the turning into the Site will be clearly visible. This will also extend the overall visibility into the quarry area. The loss of vegetation and trees along the embankment is limited to some remaining sporadic trees and scrub.
- 6.11.4. Viewpoint Location 35 looks directly southwards and is located at the northernmost position where the roadside embankment on the left of the photograph will be removed and the new road alignment taken further to the left hand side. The access area will be visible but the intervening embankment features would restrict a wider view of the quarry environs until the road user is immediately alongside the new access point.
- 6.11.5. The activity of visual receptors is entirely related to road users (**Low** sensitivity) and the experience in visual terms is typical of a busy Trunk Road (the A458). Alterations to the road will be of a **Large** magnitude of impact and a **Moderate** significance of effect. Given the existing dominant road use and visual amenity experience, the nature of effect is predicted to remain **neutral** rather than **adverse**. During construction, the disruption is likely to be similar with no change to the predicted impact level.



6.12. SUMMARY OF VISUAL EFFECTS

- 6.12.1. In total, 35 Viewpoint Locations are presented as part of the LVIA. Consideration has been given to the construction, operation and decommissioning phases.

During Construction

- 6.12.2. Relevant are views of crane movements, earthworks and ground modelling to facilitate the building of the ERF. Mitigation measures such as the screen bunds will provide effective screening features, notably at a close range. Also of importance is the Site location and higher landform adjacent to the west, particularly with regards to reducing wider views from the Severn Valley.
- 6.12.3. Overall, magnitude of impact ranged from **Large** to **Negligible** and **No Impact**.
- 6.12.4. With regards to the **immediate vicinity** to the south and east, Viewpoint Location 1 and 2 are from Heldre Lane. There will be a **Large** magnitude of impact and a **Major (adverse)** significance of effect for residents and a **Moderate (adverse)** significance of effect for road users. A similar level was recorded for road users at Viewpoint Location 2.
- 6.12.5. Within **close range**, a **Medium to Large** magnitude of impact was noted for Viewpoint Location 3, 4 and 6 resulting in a **Moderate to Major (adverse)** significance of effect for residents at Viewpoint Location 4 (Heldre Lane). Whilst a **Moderate (adverse)** and **Moderate (neutral)** significance of effect will occur for footpath users at Viewpoint Location 3 (south of Nelly Andrews' Green) and Viewpoint Location 6 (on Heldre Hill) respectively.
- 6.12.6. There was a further occurrence at **close range** to the north-east at Viewpoint Location 10 (Garreg Bank (lower) in Trewern) with a **Moderate to Major (adverse)** significance of effect for residents and **Moderate (adverse)** significance of effect for road users. The same result applies at Viewpoint Location 22 (A458 at Buttington Bridge) with a **Moderate to Major (adverse)** significance of effect for Offa's Dyke Path National Trail users and a **Moderate (adverse)** significance of effect for workers at nearby employment areas and road users.
- 6.12.7. A **Medium** magnitude of impact was recorded at **close range** for the following. At Viewpoint Location 5 and 7 from public footpaths to the south and south-east respectively. A **Moderate (neutral)** and **Moderate (adverse)** significance of effect applied for footpath users. A **Moderate to Major (adverse)** significance of effect was noted for residents (ground floor locations/gardens) at Viewpoint Location 7. At Viewpoint Location 16 (Moel y Galfa) to the north-east, a **Moderate (adverse)** significance of effect was recorded for footpath users.
- 6.12.8. A maximum **Medium** magnitude of impact occurred within the same range due to views of crane movements against the skyline (Viewpoint Location 8, 9, 11 and 13) and a landform backdrop (Viewpoint Location 19 and 20).



- 6.12.9. This transpired in settlement areas in and around Trewern at Viewpoint Location 8, 9, 11 and 13 where a **Moderate (adverse)** significance of effect for residents (upper floor windows) and **Minor-Moderate (adverse)** for road users applies.
- 6.12.10. At Viewpoint Location 19 (near Pool Quay) there will be a **Moderate to Major (adverse)** significance of effect for residents (ground floor locations/gardens) and a **Moderate (adverse)** significance of effect for footpath users. Whilst at Viewpoint Location 20 (A483 at Pool Quay) there will be a **Moderate to Major (adverse)** significance of effect for Offa's Dyke Path National Trail users and a **Minor-Moderate (adverse)** significance of effect for road users.
- 6.12.11. In addition, a maximum **Medium** level at a **medium range** was noted in relation to views of crane movements against a landform backdrop (Viewpoint Location 18 and 23 to 25). This occurred at Viewpoint Location 18 (established viewing point at Rodney's Pillar) with a **Moderate to Major (adverse)** significance of effect and Viewpoint Location 23 (from B4381 at Welshpool) resulting in a **Moderate (neutral)** significance of effect for residents (upper floor windows) and a **Minor-Moderate (neutral)** significance of effect for road users.
- 6.12.12. It also applies at a **long range** at Viewpoint Location 24 (Powis Castle) with a **Major (neutral)** significance of effect for visitors and at Viewpoint Location 25 (Y Golfa) with a **Moderate (neutral)** significance of effect for footpath users.
- 6.12.13. For the remainder, there was a **Small** or lower magnitude of impact including with regards to more general impacts for Viewpoint Locations within close range and medium range. In terms of the latter, there will be a **Small** magnitude of impact at Viewpoint Location 14 (from Bacheldre Lane) with a **Moderate (adverse)** significance of effect for residents (ground floor locations/gardens) and a **Minor (adverse)** significance of effect for road users.

During Operation

- 6.12.14. Relevant in this phase are the differing views of the upper elevations and rooflines of the ERF building including its graduated appearance. In terms of mitigation measures, the selection of cladding colours is appropriate with respect to its landscape setting. As stated, the assessment allows for the screening properties of screen bunds and not proposed native woodland planting shown on the Landscape Masterplan.
- 6.12.15. Overall, magnitude of impact ranged from potentially **Large** to **Negligible**.
- 6.12.16. With regards to the **immediate vicinity**, at Viewpoint Location 1 (Heldre Lane) and there will be a **Medium to Large** (potentially **Large**) magnitude of impact. This will result in a **Major (adverse)** significance of effect for residents (ground and potential first floor locations/gardens) and a **Moderate (adverse)** significance of effect for road users (worst case scenario). In the same range, at Viewpoint Location 2 (Heldre Lane) a **Medium to Large** magnitude of impact applied for road users with a **Moderate (adverse)** significance of effect.



6.12.17. There was one case of a **Medium to Large** magnitude of impact at **close range** at Viewpoint Location 10 (Garreg Bank (lower), Trewern) for residents (ground floor locations/gardens) with a **Moderate to Major (adverse)** significance of effect and a **Moderate (adverse)** significance of effect for road users.

6.12.18. A **Medium** magnitude of impact occurred at the following within **close range**:

- ◆ Viewpoint Location 4 (Heldre Lane) with a **Moderate to Major (adverse)** significance of effect for residents (ground floor locations/gardens) and a **Minor-Moderate (adverse)** significance of effect for road users;
- ◆ In terms of public footpaths, there will be a **Moderate (adverse)** significance of effect for footpath users at Viewpoint Location 3 (south of Nelly Andrews' Green). Whilst at Viewpoint Location 5 (to the south), Viewpoint Location 6 (to the south-east) and at Viewpoint Location 16 (Moel y Golfa), there will be a **Moderate (neutral)** significance of effect for footpath users;
- ◆ Viewpoint Location 8, 9 and 11 to 13 offer views from settlement areas in and around Trewern. A **Moderate (adverse)** significance of effect for residents (upper floor windows) and a **Minor-Moderate (adverse)** significance of effect for road users was recorded; and
- ◆ At Viewpoint Location 22 (A458 at Buttington Bridge) there will be a **Moderate to Major (adverse)** significance of effect for Offa's Dyke Path National Trail users and a **Minor-Moderate (adverse)** significance of effect for workers at nearby employment areas and road users.

6.12.19. At medium range and more commonly at a long range, a **Small** magnitude of impact or lower applied.

During Decommissioning

6.12.20. In the decommissioning phase, the main visual effects concern crane movements involved with the removal of built form. Ground restoration would be harder to identify overall in part due to the presence of screen bunds and proposed native woodland planting both within the Site and on its periphery. New tree planting has the potential to provide long term enhancement including with regards to the wider Site setting.

6.12.21. Overall, magnitude of impact ranged from **Medium to Negligible** or **No Impact**. A **Small** or lower magnitude of impact occurred more frequently overall when compared to the construction and operation phases.

6.12.22. Of the Viewpoint Locations which noted a **Medium** or **Small** magnitude of impact during decommissioning, the following were considered to be significant: Viewpoint Location 1 (immediate vicinity), Viewpoint Location 3, 4, 7, 10, 19, 20 and 22 (close range) and Viewpoint Location 14 (medium range).

6.12.23. Results which recorded a **Medium** magnitude of impact are summarised below:



- ◆ **Immediate vicinity:** Viewpoint Location 1 and 2 (Heldre Lane), **Moderate to Major (adverse)** significance of effect for residents and a **Minor-Moderate (adverse)** significance of effect for road users. A similar level was recorded for road users at Viewpoint Location 2; and
- ◆ **Close range:** From public footpaths. Viewpoint Location 3, there will be a **Moderate (adverse)** significance of effect. Viewpoint Location 5 and 6, **Moderate (neutral)** significance of effect. From settlement areas, Viewpoint Location 4 (Heldre Lane) and Viewpoint Location 10 (Garreg Bank (lower), Trewern). **Moderate to Major (adverse)** significance of effect for residents (ground floor locations/gardens) and a **Minor-Moderate (adverse)** significance of effect for road users.

6.12.24. With regards to a **Small** magnitude of impact and at a **close range**:

- ◆ Viewpoint Location 7 (immediately south of Pob Ceiniog) for residents (ground floor locations/gardens) with a **Moderate (adverse)** significance of effect and footpath users **Minor-Moderate (adverse)** significance of effect;
- ◆ Viewpoint Location 19 (near Pool Quay) with a **Moderate (adverse)** significance of effect for residents (ground floor locations/gardens) and a **Minor (adverse)** significance of effect for road users. The same level applied for Viewpoint Location 20 (A483 at Pool Quay) for Offa's Dyke Path National Trail users with a **Moderate (adverse)** significance of effect and road users with a **Minor (adverse)** significance of effect.

6.12.25. At a medium range, there will be a **Small** magnitude of impact at Viewpoint Location 14 (from Bacheldre Lane) with a **Moderate (adverse)** significance of effect for residents (ground floor locations/gardens) and a **Minor (adverse)** significance of effect for road users.

6.12.26. With regards to visual capacity, the majority of the Site including the existing quarry void has been allocated for employment uses in the Powys Local Development Plan 2011 – 2026. A **Medium** capacity for change has been assigned by B&A in this instance for the visual amenity at all distance ranges. Effects have informed the evaluation of landscape capacity considered in Section 5.

6.12.27. In terms of visual effects relating to the proposed site access, there will be a **Large** magnitude of impact and **Moderate (neutral)** significance of effect due to the context of the existing dominant road use and visual amenity experience.



Table 9: Summary of Visual Effects

VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT		SIGNIFICANCE OF EFFECT (NATURE)
Close Range Views to the South and East					
1	From Heldre Lane immediately west of Whitehouse Farm	Residents (both ground and potential first floor locations/gardens) (High)	During Construction	Large	Major (adverse)
			During Operation	Medium to Large (potentially Large)	Major (adverse) (worst case scenario)
		Road users (Low)	During Decommissioning	Medium	Moderate to Major (adverse)
			During Construction	Large	Moderate (adverse)
			During Operation	Medium to Large (potentially Large)	Moderate (adverse) (worst case scenario)
2	From Heldre Lane	Road users (Low)	During Decommissioning	Medium	Moderate (adverse)
			During Construction	Large	Moderate (adverse)
			During Operation	Medium to Large	Moderate (adverse)
			During Decommissioning	Medium	Minor-Moderate (adverse)
3	From public footpath immediately south of Nelly Andrews' Green	Footpath users (Medium)	During Construction	Medium to Large	Moderate (adverse)
			During Operation	Medium	Moderate (adverse)
			During Decommissioning	Medium	Moderate (adverse)
			During Construction	Medium to Large	Moderate to Major (adverse)
4	From Heldre Lane at Upper Heldre	Residents (ground floor locations/gardens) (High)	During Operation	Medium	Moderate to Major (adverse)
			During Decommissioning	Medium	Moderate to Major (adverse)
			During Construction	Medium to Large	Moderate (adverse)
			During Operation	Medium	Minor-Moderate (adverse)
5	From public footpath south of Buttington leading towards the Longmountain	Footpath users (Medium)	During Decommissioning	Medium	Minor-Moderate (adverse)
			During Construction	Medium	Moderate (neutral)
			During Operation	Medium	Moderate (neutral)
			During Decommissioning	Medium	Moderate (neutral)
6	From public footpath on Heldre Hill	Footpath users (Medium)	During Construction	Medium to Large	Moderate (neutral)
			During Operation	Medium	Moderate (neutral)
			During Decommissioning	Medium	Moderate (neutral)
			During Construction	Medium	Moderate to Major (adverse)
7	From Brunant, immediately south of Pob Ceiniog	Residents (ground floor locations/gardens) (High)	During Operation	Small	Moderate (neutral)
			During Decommissioning	Small	Moderate (adverse)
		Footpath users (Medium)	During Construction	Medium	Moderate (adverse)
			During Operation	Small	Minor-Moderate (neutral)
Close and Medium Range Views to the North, North-East and East					
8	From A458 at Cefn	Residents (upper floor windows) (Medium)	During Decommissioning	Small	Minor-Moderate (adverse)
			During Operation	Small	Minor-Moderate (adverse)
			During Construction	Small (generally) Medium (worst case scenario)	Moderate (adverse) (worst case scenario)
			During Decommissioning	Medium	Moderate (adverse)



VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT		SIGNIFICANCE OF EFFECT (NATURE)
		Road users (Low)	During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse) (worst case scenario)
			During Operation	Medium	Minor-Moderate (adverse)
			During Decommissioning	Small	Minor (adverse)
			During Construction	Small (generally) Medium (worst case scenario)	Moderate (adverse) (worst case scenario)
9	From A458 at Trewern	Residents (upper floor windows) (Medium)	During Operation	Medium	Moderate (adverse)
			During Decommissioning	Small	Minor-Moderate (adverse)
			During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse) (worst case scenario)
			During Operation	Medium	Minor-Moderate (adverse)
		Road users (Low)	During Decommissioning	Small	Minor (adverse)
			During Construction	Medium to Large	Moderate to Major (adverse)
			During Operation	Medium to Large	Moderate to Major (adverse)
			During Decommissioning	Medium	Moderate to Major (adverse)
10	From Garreg Bank (lower), Trewern	Residents (ground floor locations/gardens) (High)	During Construction	Medium to Large	Moderate (adverse)
			During Operation	Medium to Large	Moderate (adverse)
			During Decommissioning	Medium to Large	Moderate (adverse)
			During Operation	Medium to Large	Moderate (adverse)
		Road users (Low)	During Decommissioning	Medium	Minor-Moderate (adverse)
			During Construction	Small (generally) Medium (worst case scenario)	Moderate (adverse) (worst case scenario)
			During Operation	Medium	Moderate (adverse)
			During Decommissioning	Small	Minor-Moderate (adverse)
11	From Garreg Bank (upper), Trewern	Residents (upper floor windows) (Medium)	During Construction	Small	Minor-Moderate (adverse)
			During Operation	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse) (worst case scenario)
			During Decommissioning	Medium	Moderate (adverse)
			During Construction	Small	Minor-Moderate (adverse)
		Road users (Low)	During Operation	Medium	Minor-Moderate (adverse)
			During Decommissioning	Small	Minor (adverse)
			During Construction	Very Small (generally) Small (worst case scenario)	Minor-Moderate (adverse)
			During Operation	Medium	Moderate (adverse)
12	From Crigglon Lane, Trewern	Residents (upper floor windows) (Medium)	During Decommissioning	Very Small	Minor (adverse)
			During Construction	Very Small (generally) Small (worst case scenario)	Minor (adverse) (worst case scenario)
			During Operation	Medium	Minor-Moderate (adverse)
			During Decommissioning	Very Small	Negligible (adverse)
		Road users (Low)	During Construction	Small (generally) Medium (worst case scenario)	Moderate (adverse) (worst case scenario)
			During Operation	Medium	Moderate (adverse)
			During Decommissioning	Small	Minor-Moderate (adverse)
			During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse) (worst case scenario)
13	From lane at Gofla Bank and adjacent to The Old Shop Cottage	Residents (upper floor windows) (Medium)	During Construction	Small	Minor-Moderate (adverse)
			During Operation	Small	Minor-Moderate (adverse)
			During Decommissioning	Small	Minor-Moderate (adverse)
			During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse) (worst case scenario)
		Road users (Low)	During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse) (worst case scenario)
			During Operation	Medium	Moderate (adverse)
			During Decommissioning	Small	Minor-Moderate (adverse)
			During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse) (worst case scenario)



VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT		SIGNIFICANCE OF EFFECT (NATURE)
			During Operation	Medium	Minor-Moderate (adverse)
			During Decommissioning	Small	Minor (adverse)
			During Construction	Small	Moderate (adverse)
			During Operation	Small	Moderate (neutral)
		Residents (ground floor locations/gardens) (High)	During Decommissioning	Small	Moderate (adverse)
14	From Bacheldre Lane adjacent to Oak Grange	Road users (Low)	During Construction	Small	Minor (adverse)
			During Operation	Small	Minor (neutral)
			During Decommissioning	Small	Minor (adverse)
			During Construction	Small	Minor (adverse)
			During Operation	Small	Minor (adverse)
			During Decommissioning	Small	Minor (adverse)
15	From A458 west of Wollaston	Road users (Low)	During Construction	Negligible	Negligible (adverse)
			During Operation	Very Small	Negligible (neutral)
			During Decommissioning	Negligible	Negligible (adverse)
			During Construction	Medium	Moderate (adverse)
			During Operation	Medium	Moderate (neutral)
			During Decommissioning	Small	Minor-Moderate (adverse)
16	From Moel y Gofla	Footpath users (Medium)	During Construction	Small	Minor-Moderate (neutral)
			During Operation	Small	Minor-Moderate (neutral)
			During Decommissioning	Very Small	Minor (neutral)
17	From Middletown Hill	Walkers (general recreation) (Medium)	During Construction	Small (generally) Medium (worst case scenario)	Moderate to Major (adverse)
			During Operation	Small	Moderate (adverse)
			During Decommissioning	Small	Moderate (neutral)
18	From Rodney's Pillar	Established viewing point at Rodney's Pillar (High)	During Construction	Small	Moderate (adverse)
			During Operation	Small	Moderate (adverse)
			During Decommissioning	Small	Moderate (adverse)
Close Range Views to the North-West and West					
			During Construction	Small (generally) Medium (worst case scenario)	Moderate to Major (adverse)
			During Operation	Small	Moderate (neutral)
			During Decommissioning	Small	Moderate (adverse)
19	From public footpath near Coppice East Farm (near Pool Quay)	Footpath users (Medium)	During Construction	Small (generally) Medium (worst case scenario)	Moderate (adverse) (worst case scenario)
			During Operation	Small	Minor-Moderate (neutral)
			During Decommissioning	Small	Minor-Moderate (adverse)
			During Construction	Small (generally) Medium (worst case scenario)	Moderate to Major (adverse)
			During Operation	Small	Moderate (neutral)
			During Decommissioning	Small	Moderate (adverse)
20	From A483 at Pool Quay	Offa's Dyke Path National Trail users (High)	During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse)
			During Operation	Small	Minor (neutral)
			During Decommissioning	Small	Minor (adverse)
			During Construction	Small	Negligible (adverse)
			During Operation	Very Small	Minor (neutral)
21	From A483 near Pool Quay at Strata Marcella Abbey	Road users (Low)	During Construction	Small	Negligible (adverse)
			During Operation	Very Small	Minor (neutral)



VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT		SIGNIFICANCE OF EFFECT (NATURE)
		Offa's Dyke Path National Trail users (High)	During Decommissioning	Negligible	Negligible (adverse)
		Road users (Low)	During Construction	Negligible	Negligible (adverse)
			During Operation	Very Small	Negligible (neutral)
			During Decommissioning	Negligible	Negligible (adverse)
Close and Medium Range Views to the South-West					
22	From A458 at Buttington Bridge	Offa's Dyke Path National Trail users (High)	During Construction	Medium to Large	Moderate to Major (adverse)
			During Operation	Medium	Moderate to Major (adverse)
			During Decommissioning	Medium	Moderate to Major (adverse)
			During Construction	Medium to Large	Moderate (adverse)
			During Operation	Medium	Minor-Moderate (adverse)
		During Decommissioning	Medium	Minor-Moderate (adverse)	
			During Construction	Small (generally) Medium (worst case scenario)	Moderate (neutral) (worst case scenario)
			During Operation	Small	Minor-Moderate (neutral)
			During Decommissioning	Small	Minor-Moderate (neutral)
23	From B4381 at Welshpool	Residents (upper floor windows) (Medium)	During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (neutral)
			During Operation	Small	Minor-Moderate (neutral)
			During Decommissioning	Small	Minor-Moderate (neutral)
			During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (neutral)
		Road users (Low)	During Operation	Small	Minor (neutral)
			During Decommissioning	Small	Minor (neutral)
Long Range Views to the South-West					
24	From Powis Castle, Welshpool	Visitors to Powis Castle (Very High)	During Construction	Small (generally) Medium (worst case scenario)	Major (neutral) (worst case scenario)
			During Operation	Small	Moderate (neutral)
			During Decommissioning	Small	Moderate (neutral)
			During Construction	Small (generally) Medium (worst case scenario)	Moderate (neutral) (worst case scenario)
25	From Y Golfa (Welshpool Golf Club)	Footpath users (Medium)	During Operation	Very Small	Minor (neutral)
			During Decommissioning	Very Small	Minor (neutral)
			During Construction	No Impact	None
			During Operation	Negligible	Negligible (neutral)
26	From A483 at Rhiw Bridge (Berriew)	Road users (Low)	During Decommissioning	No Impact	None
			During Construction	No Impact	None
			During Operation	Negligible	Negligible (adverse)
			During Decommissioning	Very Small	Minor (neutral)
27	From public footpath between Y Brywydd and Castle Caereinion	Footpath users (Medium)	During Construction	Negligible	Negligible (adverse)
			During Operation	Very Small	Minor (neutral)
			During Decommissioning	Negligible	Negligible (adverse)
			During Construction	Negligible	Negligible (adverse)
Medium and Long Range Views to the North and North-West					
28	From A483 at Ardleen	Residents (upper floor windows) (Medium)	During Construction	Negligible (generally) Very Small (worst case scenario)	Minor (adverse) (worst case scenario)
			During Operation	Very Small	Minor (neutral)



VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT		SIGNIFICANCE OF EFFECT (NATURE)
		Road users (Low)	During Decommissioning	Negligible (generally) Very Small (worst case scenario)	Minor (adverse) (worst case scenario)
			During Construction	Negligible (generally) Very Small (worst case scenario)	Negligible (adverse) (worst case scenario)
			During Operation	Very Small	Negligible (neutral)
			During Decommissioning	Negligible (generally) Very Small (worst case scenario)	Negligible (adverse) (worst case scenario)
29	From Castlehill Lane, Burgedin	Road users (Low)	During Construction	Negligible (generally) and Very Small (worst case scenario)	Negligible (adverse) (worst case scenario)
			During Operation	Negligible	Negligible (neutral)
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)	Negligible (adverse) (worst case scenario)
30	From the Severn Way, east of Tredrenewen	Severn Way long distance footpath users (Medium)	During Construction	Negligible (generally) and Very Small (worst case scenario)	Minor (neutral) (worst case scenario)
			During Operation	Negligible	Negligible (neutral)
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)	Minor (neutral) (worst case scenario)
31	From Llanymynech Hill	Footpath users (Medium)	During Construction	Negligible (generally) and Very Small (worst case scenario)	Minor (neutral) (worst case scenario)
			During Operation	Negligible	Negligible (neutral)
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)	Minor (neutral) (worst case scenario)
			During Construction	Negligible (generally) and Very Small (worst case scenario)	Negligible (neutral) (worst case scenario)
32	From Quarry Lane and Offa's Dyke Path, Nantmawr	Recreation users at Llanymynech Golf Club (Low)	During Operation	Negligible (generally) and Very Small (worst case scenario)	Negligible (neutral) (worst case scenario)
			During Construction	Negligible	Negligible (neutral)
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)	Negligible (neutral) (worst case scenario)
		Offa's Dyke Path National Trail users and residents (ground floor locations/gardens) (High)	During Construction	Negligible (generally) and Very Small (worst case scenario)	Minor (neutral) (worst case scenario)
			During Operation	Negligible	Negligible (neutral)



VP NO.	LOCATION	RECEPTOR (SENSITIVITY)	MAGNITUDE OF IMPACT		SIGNIFICANCE OF EFFECT (NATURE)
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)	Minor (neutral) (worst case scenario)
33	From Green Hall Hill, Brynelltlyn, Llanfyllin	Walkers (general recreation) (Medium)	During Construction	Negligible (generally) and Very Small (worst case scenario)	Minor (neutral) (worst case scenario)
			During Operation	Negligible	Negligible (neutral)
			During Decommissioning	Negligible (generally) and Very Small (worst case scenario)	Minor (neutral) (worst case scenario)
Views from the Access Road					
34	N/A	Road users (Low)	During Construction	Large	Moderate (neutral)
35	N/A	Road users (Low)	During Construction	Large	Moderate (neutral)



6.13. CUMULATIVE EFFECTS

- 6.13.1. Cumulative effects have been considered in relation to large scale commercial development such as warehouses along the main road network (e.g. A458 and A483) and on the edge of settlements, namely at Buttington and Welshpool.
- 6.13.2. For northern and north-westerly locations, more extensive views are not available until a higher elevation allows both views of the Site and development further south around settlement areas. For example at Viewpoint Location 11 From Garreg Bank (upper), Trewern (1.9km north-east) (close range) and from Viewpoint Location 16 to 18 which are from the hill summits of Moel y Golfa, Middletown Hill and Rodney's Pillar (Breidden Hill).
- 6.13.3. To the south-west, landform and vegetation limits views of both the Site and areas of development until a medium range. At Viewpoint Location 23 From B4381 at Welshpool (5km south-west) and Viewpoint Location 24 From Powis Castle, Welshpool (6.4km south-west) existing industrial buildings are within closer proximity to the viewer, whereas, the Site forms part of the wider context. At Viewpoint Location 25 From Y Golfa (Welshpool Golf Club) (8.9km south-west) both the Development and the existing Buttington Cross Enterprise Park/Welshpool Livestock Sales building on the edge of Welshpool will be viewed as part of the broad scene.
- 6.13.4. The Development will not result in **adverse** cumulative effects in regards to the above.

6.14. CONSIDERATION OF WINTER VIEWS

- 6.14.1. As part of the LVIA process, consideration has been given to the visual amenity during winter months to establish what additional visibility might occur. For instance, this may involve increasing views of activity during construction and decommissioning due to a lack of treecover or increased views of built form during operation. It also takes into account whether the proposed cladding colour scheme is suitable during winter.
- 6.14.2. The cladding colour scheme is set out in the Design and Access Statement and depicted in the summer time photographs (Figures L9 to L109).
- 6.14.3. Appendix 12 (Sheets 1 to 16) includes a selection of viewpoint locations in the immediate vicinity and within close range which were photographed during winter months (February 2019) together with a photomontage (winter) view for each Viewpoint Location.
- 6.14.4. Viewpoint Locations 2, 5, 8 to 11 are considered together with views close to Viewpoint Locations 4 and 22. The proposed native woodland planting illustrated by the Landscape Masterplan is shown on photomontage views (both winter and summer). During the operation phase, no allowance is made for the additional screening benefits offered by proposed native woodland planting.



Close Range Views to the South and East

- 6.14.5. Winter views are explored from Viewpoint Location 2 and near to Viewpoint Location 4 which are both from Heldre Lane. Viewpoint Location 5 is from a public footpath south of Buttington leading towards the Longmountain.

Viewpoint Location 2: From Heldre Lane

Refer to Summer Views: Figures L12 to L14 and Winter Views: Sheets 1 and 2 (Appendix 12)

- 6.14.6. Viewpoint Location 2 is from Heldre Lane and is to the south-east of the Site within the immediate vicinity (480m).
- 6.14.7. The current winter view (Sheet 1) looks across open agricultural fields bordered by hedgerows and hedgerow trees. Whilst the Site is viewed against a backdrop of landform. The partially finished screen bund adjacent to Sale Lane can be identified. The photomontage (winter) view (Sheet 2) shows the ERF building and stack. A clear view is available of the south-eastern façade of the ERF building and the proposed cladding colour scheme with its muted tones and different green hues complements the rural landscape setting. Also of note is the bicolour of the stack, the upper part of which is seen against the skyline. Given the open nature of the agricultural fields, a reduction in vegetation outwith the Site in the immediate vicinity will not lead to an increase in views of built form.
- 6.14.8. The assessment of winter views concurs with that for summer views (Figures L12 to L14).

Near to Viewpoint Location 4 From Heldre Lane at Upper Heldre

Refer to Summer Views: Figures L18 to L20 and Winter Views: Sheets 3 and 4 (Appendix 12)

- 6.14.9. This second location is near to Viewpoint Location 4 on Heldre Lane at Upper Heldre. It offers a more distant elevated view from the road.
- 6.14.10. The Site is seen in a wider context consisting of agricultural fields bordered by hedgerows and hedgerow trees with woodland tracts in places. In terms of the latter, the mixed woodland frames the north-western Site boundary. Whilst the partially finished screen bund adjacent to Sale Lane can be identified (Sheet 3). The photomontage (winter) view (Sheet 4) shows the ERF building and stack. A view is available of the south-eastern façade of the ERF building and stack. The proposed cladding colour scheme with its muted tones and different green hues complements the rural landscape setting. Given the open nature of the agricultural fields, a reduction in vegetation outwith the Site in the immediate vicinity will not lead to an increase in views of built form.
- 6.14.11. The assessment of winter views concurs with that for summer views for Viewpoint Location 4 (Figures L18 to L20).

Viewpoint Location 5 From public footpath south of Buttington leading towards the Longmountain



Refer to Summer Views: Figures L21 to L23 and Winter Views: Sheets 5 and 6 (Appendix 12)

- 6.14.12. Viewpoint Location 5 is from a public footpath south of Buttington and is within close range of the Site (1.3km). It represents the most distant view considered in this general direction and is from an elevated location.
- 6.14.13. This northerly view looks across the wooded slopes towards the Site which is seen in a wider context consisting of agricultural fields and woodland blocks. The tract of mixed woodland frames the north-western Site boundary. Whilst settlement areas including dispersed farmsteads and villages can be seen in the distance (Sheet 5). The photomontage (winter) view (Sheet 6) shows the southern façade of the ERF building and stack which are seen against a backdrop of landform. The proposed cladding colour scheme with its muted tones and different green hues complements the rural landscape setting. The view towards the Site is not influenced by woodland cover and a reduction in tree cover will not lead to increased views of the Development.
- 6.14.14. The assessment of winter views concurs with that for summer views (Figures L21 to L23).

Close Range Views to the North, North-East and East

- 6.14.15. Viewpoint Locations 8 to 11 explore winter views from the road network and nearby villages.

Viewpoint Location 8 From A458 at Cefn

Refer to Summer Views: Figures L30 to L32 and Winter Views: Sheets 7 and 8 (Appendix 12)

- 6.14.16. Viewpoint Location 8 is from the A458 which passes through Cefn and is to the north-east of the Site within close range (1.1km).
- 6.14.17. The existing (winter) view (Sheet 7) looks across the A458 which is bordered by a hedgerow. At a further distance are residential properties and individual mature trees in places. The topography rises towards the horizon and the Site forms part of this wider elevated area which has a more rural appearance of agricultural fields, hill slopes and woodland.
- 6.14.18. The photomontage (winter) view (Sheet 6) shows the northern façade of the ERF building and stack which are viewed against the skyline. The proposed cladding colour scheme with its muted tones and different green hues complements the mainly rural landscape setting. A reduction in tree cover outwith the Site will not lead to increased views of the Development.
- 6.14.19. The assessment of winter views concurs with that for summer views (Figures L30 to L32).

Viewpoint Location 9 From A458 at Trewern

Refer to Summer Views: Figures L33 to L35 and Winter Views: Sheets 9 and 10 (Appendix 12)



6.14.20. Viewpoint Location 9 is from the A458 at Trewern and is to the north-east of the Site within close range (1.9km). Receptors will include residents (upper floor windows) (**Medium** sensitivity) and road users (**Low** sensitivity).

6.14.21. The existing (winter) view (Sheet 9) looks in a south-westerly direction and is at a slightly further distance from Viewpoint Location 8. It offers a view of agricultural fields bordered by hedgerows and hedgerow trees. The topography rises towards the horizon and the Site forms part of this wider elevated area. The photomontage (winter) view (Sheet 10) shows the northern façade of the ERF building and stack which are viewed against the skyline. The proposed cladding colour scheme with its muted tones and different green hues complements the mainly rural landscape setting. A reduction in tree cover outwith the Site will not lead to increased views of the Development.

6.14.22. The assessment of winter views concurs with that for summer views (Figures L33 to L35).

Viewpoint Location 10 From Garreg Bank (lower), Trewern

Refer to Summer Views: Figures L36 to L38 and Winter Views: Sheets 11 and 12 (Appendix 12)

6.14.23. Viewpoint Location 10 is from Garreg Bank (lower) in Trewern and is to the north-east of the Site within close range (1.7km).

6.14.24. The existing (winter) view (Sheet 11) looks out from the residential area of Trewern beyond which is a more rural setting of agricultural fields and woodland tracts. The topography rises towards the horizon and the Site forms part of this wider elevated area. The photomontage (winter) view (Sheet 12) shows the northern façade of the ERF building and stack which are viewed against the skyline. The proposed cladding colour scheme with its muted tones and different green hues complements the mainly rural landscape setting. A reduction in tree cover outwith the Site will not lead to increased views of the Development.

6.14.25. The assessment of winter views concurs with that for summer views (Figures L36 to L38).

Viewpoint Location 11 From Garreg Bank (upper), Trewern

Refer to Summer Views: Figures L39 to L41 and Winter Views: Sheets 13 and 14 (Appendix 12)

6.14.26. Viewpoint Location 11 is from Garreg Bank (upper) in Trewern and is to the north-east of the Site within close range (1.9km). Receptors will include residents (upper floor windows) (**Medium** sensitivity) and road users (**Low** sensitivity).

6.14.27. Viewpoint Location 11 is at a slightly further distance and higher elevation in comparison to Viewpoint Location 10.

6.14.28. The existing (winter) view (Sheet 13) comprises an open view across residential properties towards the Site. Beyond the village, agricultural fields divided by hedgerows and field trees are present at a low level. At a further



distance, as the landform rises it becomes more wooded. The Site forms part of a wider elevated area.

- 6.14.29. The photomontage (winter) view (Sheet 14) shows the northern façade of the ERF building and stack which are viewed against the skyline. The proposed cladding colour scheme with its muted tones and different green hues complements the mainly rural landscape setting. A reduction in tree cover outwith the Site will not lead to increased views of the Development.
- 6.14.30. The assessment of winter views concurs with that for summer views (Figures L39 to L41).

Close Range Views to the South-West

Near to Viewpoint Location 22 From A458 at Buttington Bridge

Refer to Summer Views: Figures L72 to L74 and Winter Views: Sheets 15 and 16 (Appendix 12)

- 6.14.31. This location is near to Viewpoint Location 22 from the A458 at Buttington Bridge. It is to the south-west of the Site within close range. The assessment has considered the visual Figures prepared for Viewpoint Location 22 (Figures L72 to L74).
- 6.14.32. The existing (winter) view (Sheet 15) consists of a view of agricultural fields divided by hedgerows and interspersed by farmsteads. At a further distance, landform rises and the Site forms part of a higher elevated area which features a background of the wooded slopes and summits of Breidden Hill, Middletown Hill and Moel y Gofa. The photomontage (winter) view (Sheet 16) shows the south-western façade of the ERF building and the stack. The proposed cladding colour scheme with its muted tones and different green hues complements the rural landscape setting. Also of note is the bicolour of the stack, the upper part of which is seen against the skyline.
- 6.14.33. The assessment of winter views concurs with that for summer views for Viewpoint Location 22 (Figures L72 to L74).

Conclusions

- 6.14.34. In summary, the visual impact assessment found that in summer months, the selection of natural cladding colours will assist in assimilating the proposed built form into a mainly rural visual setting. This also applies to the winter views assessed. The cladding colour scheme merges with the wider landscape setting and forms part of the scene rather than being a focus.
- 6.14.35. There will be no change to the visual impact assessment findings for summer views during any phases with regards to a reduction in tree cover outwith the Site. Although vegetation is reduced, it does not result in increased views of built form.



- 6.14.36. With regards to the Site and mitigation measures such as proposed native woodland planting. As stated, new tree planting is not factored into the visual impact assessment in the operation phase. An objective of the design scheme for the Development was that it should not be wholly dependent on the need for screening in this phase, rather the key aspects are the siting of the Development within a quarry void and architectural design of the ERF and cladding colour scheme. Therefore, the LVIA considers a worst case scenario overall with screening provided by screen bunds only.
- 6.14.37. The landscape proposals will achieve long term biodiversity enhancement together with visual and character improvements. This offers a local visual 'softening' of views which is recognised as a positive influence, particularly at a close range. Woodland will gradually offer an enhanced visual experience as it matures and this is recognised in the decommissioning phase for views, notably within this range.



Table 10: Summary of Viewpoint Locations (Comparison of Summer and Winter Views)

RECEPTOR (SENSITIVITY)		SUMMER VIEWS			WINTER VIEWS		
		MAGNITUDE OF IMPACT	SIGNIFICANCE OF EFFECT (NATURE)	MAGNITUDE OF IMPACT	SIGNIFICANCE OF EFFECT (NATURE)		
Viewpoint Location 2 From Heldre Lane							
Road users (Low)	During Construction	Large	Moderate (adverse)	During Construction	No change to summer view evaluation		
	During Operation	Medium to Large	Moderate (adverse)	During Operation			
	During Decommissioning	Medium	Minor-Moderate (adverse)	During Decommissioning			
Near to Viewpoint Location 4 From Heldre Lane at Upper Helder							
Residents (ground floor locations/gardens) (High)	During Construction	Medium to Large	Moderate to Major (adverse)	During Construction	No change to summer view evaluation		
	During Operation	Medium	Moderate to Major (adverse)	During Operation			
	During Decommissioning	Medium	Moderate to Major (adverse)	During Decommissioning			
	During Construction	Medium to Large	Moderate (adverse)	During Construction			
Road users (Low)	During Operation	Medium	Minor-Moderate (adverse)	During Operation	No change to summer view evaluation		
	During Decommissioning	Medium	Minor-Moderate (adverse)	During Decommissioning			
	Viewpoint Location 5 From public footpath south of Buttington leading towards the Longmountain						
Footpath users (Medium)	During Construction	Medium	Moderate (neutral)	During Construction	No change to summer view evaluation		
	During Operation	Medium	Moderate (neutral)	During Operation			
	During Decommissioning	Medium	Moderate (neutral)	During Decommissioning			
Viewpoint Location 8 From A458 at Cefn							
Residents (upper floor windows) (Medium)	During Construction	Small (generally) Medium (worst case scenario)	Moderate (adverse) (worst case scenario)	During Construction	No change to summer view evaluation		
	During Operation	Medium	Moderate (adverse)	During Operation			
	During Decommissioning	Small	Minor-Moderate (adverse)	During Decommissioning			
	During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse) (worst case scenario)	During Construction			
Road users (Low)	During Operation	Medium	Minor-Moderate (adverse)	During Operation	No change to summer view evaluation		
	During Decommissioning	Small	Minor (adverse)	During Decommissioning			
	Viewpoint Location 9 From A458 at Trewern						
Residents (upper floor windows) (Medium)	During Construction	Small (generally) Medium (worst case scenario)	Moderate (adverse) (worst case scenario)	During Construction	No change to summer view evaluation		
	During Operation	Medium	Moderate (adverse)	During Operation			



RECEPTOR (SENSITIVITY)	SUMMER VIEWS			WINTER VIEWS	
	MAGNITUDE OF IMPACT		SIGNIFICANCE OF EFFECT (NATURE)	MAGNITUDE OF IMPACT	SIGNIFICANCE OF EFFECT (NATURE)
Road users (Low)	During Decommissioning	Small	Minor-Moderate (adverse)	During Decommissioning	No change to summer view evaluation
	During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse) (worst case scenario)	During Construction	
	During Operation	Medium	Minor-Moderate (adverse)	During Operation	
	During Decommissioning	Small	Minor (adverse)	During Decommissioning	
Viewpoint Location 10 From Garreg Bank (lower), Trevern					
Residents (ground floor locations/gardens) (High)	During Construction	Medium to Large	Moderate to Major (adverse)	During Construction	No change to summer view evaluation
	During Operation	Medium to Large	Moderate to Major (adverse)	During Operation	
	During Decommissioning	Medium	Moderate to Major (adverse)	During Decommissioning	
	During Construction	Medium to Large	Moderate (adverse)	During Construction	
Road users (Low)	During Operation	Medium to Large	Moderate (adverse)	During Operation	No change to summer view evaluation
	During Decommissioning	Medium	Minor-Moderate (adverse)	During Decommissioning	
	Viewpoint Location 11 From Garreg Bank (upper), Trevern				
	During Construction	Small (generally) Medium (worst case scenario)	Moderate (adverse) (worst case scenario)	During Construction	
Residents (upper floor windows) (Medium)	During Operation	Medium	Moderate (adverse)	During Operation	
	During Decommissioning	Small	Minor-Moderate (adverse)	During Decommissioning	
	During Construction	Small (generally) Medium (worst case scenario)	Minor-Moderate (adverse) (worst case scenario)	During Construction	No change to summer view evaluation
	Road users (Low)	During Operation	Medium	Minor-Moderate (adverse)	
During Decommissioning		Small	Minor (adverse)	During Decommissioning	
Near to Viewpoint Location 22 From A458 at Buttington Bridge					
Offa's Dyke Path National Trail users (High)		During Construction	Medium to Large	Moderate to Major (adverse)	During Construction
	During Operation	Medium	Moderate to Major (adverse)	During Operation	
	During Decommissioning	Medium	Moderate to Major (adverse)	During Decommissioning	
	During Construction	Medium to Large	Moderate (adverse)	During Construction	No change to summer view evaluation
Workers at nearby employment areas and road users (Low)	During Operation	Medium	Minor-Moderate (adverse)	During Operation	
	During Decommissioning	Medium	Minor-Moderate (adverse)	During Decommissioning	



6.15. CONSIDERATION OF PLUME VISIBILITY

- 6.15.1. Each photomontage illustration presented in the LVIA uses the average calculated visible plume as set out in the Methodology (see Appendix 1). The plume is taken into account as part of the assessment of the overall visibility of the stack. However, for the most part, the average visible plume does not represent a significant detractor.
- 6.15.2. It is acknowledged that when visible, it has the potential to heighten the visibility of the stack and therefore, the Development in a wider landscape context. Generally, this is dependent on a number of factors:
- ◆ Atmospheric conditions will have an influence on the visible presence of the plume. For example, in winter months when low temperature and humidity are more frequent, the plume length and visibility may be more apparent. Whilst in summer months, both would decline; and
 - ◆ Presence of cloud cover or clear blue skies as the latter will lead to an increased contrast with the visible plume.
- 6.15.3. In Chapter 6 of the ES (Air Quality), the modelling indicates that when visible, the plume length is predicted to be short (c.4m for 30% of daylight hours). It is forecasted to extend to up to 107m in length for 5% of the time and would remain within the Site boundary (113m from the stack location). Given the results of the modelling, the plume will be visible for a limited number of daylight hours. Some infrequent **adverse** visual effects may occur as outlined above, but this will be dependent on weather conditions. Overall, it will not result in significant **adverse** visual effects.
- 6.15.4. To explore a worst case scenario, an example photomontage view of the maximum calculated visible plume length is provided in Appendix 14. This has been established using the approach set out in the methodology (Appendix 1). The photomontage view illustrates the maximum calculated plume length from Viewpoint Location 11: From Garreg Bank (upper), Trewern which is within close range (c.1.9km north-east). In such instances, this longer visible plume will accentuate the context of the visibility of the overall ERF building and in particular the stack. However, two factors are of note, firstly, the transient nature of the visible plume and secondly, the wider context of the Site within which the visible plume will disperse, albeit, over a longer range than ordinarily experienced. This is not predicted to increase the overall scale of effect beyond the currently described limits. Thus, the significance of effect is not likely to increase either.

6.16. ASSESSMENT OF LIGHTING EFFECTS

- 6.16.1. During construction, night time views will be possible of safety lighting associated with the crane and other security measures.
- 6.16.2. The proposed lighting scheme during the operation of the Development is represented by the report and Drawings prepared by Illume Design (Dated 1 August 2019) which are provided in the ES. It is assessed in this Section.



- 6.16.3. The proposed lighting scheme includes illuminance of the ERF and access road. Lighting of immediate areas will avoid light bleed (upwards into darker skies) and feature modern down light fixtures. The ERF building itself may be fitted with similar downlight fittings, however, the façade is designed to avoid direct openings or translucent cladding that may allow light exposure during night time. It is assumed that the lighting will be operational during all hours of darkness to allow the safe operation of the Development.
- 6.16.4. The stack will be fitted with a specialist infra-red night vision lighting system, not detectable to the human eye (see Section 4.3 in Chapter 4 of the ES). Therefore, no impact of high level lighting of the stack to the night time scene is predicted to occur. Lighting of the new development could offer a visual impact where there are known areas of night views and an appreciation of darker skies.
- 6.16.5. In order to assess the possible effects of the lighting upon the night sky, this assessment has selected a range of Viewpoint Locations to explore the current situation concerning the night sky and explore the likely consequences of the proposed lighting scheme. It is recognised that the range (distance) from the Development that effects may take place is greatly reduced when compared to the day time ZTV during night time hours (Figures L5 and L6). The Viewpoint Locations have been illustrated in Appendix 11 (Sheets 1 to 6).
- 6.16.6. The terminology of magnitude of impact and resultant significance of effect are less applicable to the process of understanding effects due to lighting. To ensure a balanced review, this appraisal provides a narrative description for selected illustrated views. It then predicts whether the effects could be accommodated or if the proposed lighting scheme will become such a notable effect that it results in a significant change when compared to the current situation. Also relevant is the context of the night time views from residential properties. During day time, views would be regarded as being sensitive but the same might not apply at night time, especially in cases where the background does not involve a totally dark night sky.
- 6.16.7. In terms of lighting, light spill relates to the unwanted spillage of light onto adjacent areas which may affect receptors. Sky glow concerns the *'brightening of the night sky'*. Whilst glare refers to the *'uncomfortable brightness of a light source when viewed against a darker background'*. (page 3)³⁶
- 6.16.8. Primary effects concern where a light source is visible, whilst secondary effects refer to reflective sources or light bleed. In the case of the ERF building, for the most part, the lower sections are screened to a level equivalent to 12m off the floor level of 90mAOD. Thus, light spill (direct) effects are not anticipated to cause a significant impact where the ERF building is located. However, sky glow could remain a detectable effect. There may be some limited locations where light spill will occur from the lighting of the access road for some close range receptors. The potential

³⁶ Guidance Note 01/20, Guidance notes for the reduction of obtrusive light, Institute of Lighting Professionals, 2020



effects have been set out in the following narrative. Overall, the greater likely effect will be sky glow rather than light spill.

- 6.16.9. Seven Viewpoint Locations have been selected and an assessment of effects is provided below. The relevant Sheet included in Appendix 11 is indicated.

Viewpoint Location 4: From Heldre Lane at Upper Heldre (Refer to Appendix 11 Sheet 1)

Reason for Selection

- 6.16.10. To explore a more elevated location (compared to the Site), the relative expectation of a darker night sky and lower expectation of closer range light sources.

Assessment of Effects

- 6.16.11. Viewpoint Location 4 (close range) demonstrates the relative darkness where views are gained towards the Site with only small isolated sources of light from farms/hamlets etc. Therefore, whilst not a wholly dark sky, the light source levels are relatively low. The proposed lighting scheme will create a low level of glow which could also illuminate the outline of new built form. There will be a **Small** or **Medium** (maximum) magnitude of impact with a likely **Moderate (neutral)** significant of effect for residents (ground floor locations/gardens) and a **Minor (neutral)** significant of effect for road users.

Viewpoint Location 6: From footpath on Heldre Hill (Refer to Appendix 11 Sheet 2)

Reason for Selection

- 6.16.12. Whilst it is accepted that the footpath is highly unlikely to be used during the night, the location provided a good overview of the Site and adjacent areas to help identify the light sources and general baseline of the night sky.

Assessment of Effects

- 6.16.13. Viewpoint Location 6 (close range) is not a location expected to be frequented during hours of darkness and **No Impact** is predicted with respect to footpath receptors. However, it usefully sets out the broader Severn Valley night time situation with large-scale lighting sources seen as a direct light or sky glow from Welshpool, Trewern and the main Trunk Roads as well as localised farmsteads and hamlets. The Site is located between the existing areas of main light intrusion and is within an area of greater darkness. Thus, low levels of observed night glow will be less intrusive than the light spill. Where locations may be gained observing the night sky and incorporating the Site, a **Very Small** to **Small** (maximum) magnitude of impact may occur. The consequence is not likely to be more than a **Minor (neutral)** significant of effect.



Viewpoint Location 7: From Brunant, immediately south of Pob Ceiniog (Refer to Appendix 11 Sheet 3)

Reason for Selection

- 6.16.14. Selected due to its elevated location and is near to residential properties. This provides an understanding of the effects of the lighting upon the current situation. Together with the broader appreciation through Viewpoint Location 6, it assists in understanding the effect of the proposed lighting scheme from locations that are identified as likely to be the closest and thus, potentially sensitive.

Assessment of Effects

- 6.16.15. Viewpoint Location 7 (close range) considers a known view from a residential area towards the Site. It is likely to apply to residents rather than footpath users on the track. Given the assessment and understanding gained from Viewpoint Location 6, the existing light spill and sky glow is evident from Trewern. Some distant sky glow can also be detected from Welshpool. The Site which is located in an area of greater darkness will become more visible at night due to the effects of sky glow, although direct lighting spill is not anticipated to be a cause of impact. It will be seen as an extension to the current light spill/sky glare at Trewern and this direction of view creates a close link in visual terms to the Site. The effects will remain at a **Small** magnitude of impact with a **Moderate (neutral)** significant of effect for residents (ground floor locations/gardens).

Viewpoint Location 11: From Garreg Bank (upper), Trewern (Refer to Appendix 11 Sheet 4)

Reason for Selection

- 6.16.16. Views from Trewern are identified to be sensitive receptors (residential properties) and are therefore, worthy of further evaluation for lighting effects. The Viewpoint Location is located within a broadly darker locale than in comparison to other residential areas and thus, enables a greater appreciation of the night sky.

Assessment of Effects

- 6.16.17. Viewpoint Location 11 (close range) is a wholly different direction of view but also demonstrates the existing light sources along the A458 and within the built up areas of Trewern. Thus, the existing night view is already heavily compromised. The proposed lighting scheme for the Site will almost be totally hidden though some residual sky glow may be observed. The consequence of the additional light will be a **Very Small** magnitude of impact and is unlikely to have anything more than a **Minor (neutral)** significant of effect for residents (upper floor windows) (Medium) and a **Negligible (neutral)** significant of effect for road users.



Viewpoint Location 21: From A483 near Pool Quay at Strata Marcella Abbey (Refer to Appendix 11 Sheet 5)

Reason for Selection

- 6.16.18. From a comparative location (in terms of distance) from the north-west and looks across the Severn Valley towards the Site. It creates a differing night sky compared to the previous views that are directed looking south-westwards.

Assessment of Effects

- 6.16.19. Viewpoint Location 21 (close range) demonstrates the low levels of existing light sources. The assessment applies primarily to road users rather than Offa's Dyke Path National Trail users in this instance. A small amount of sky glow is detected near to the Site, believed to be from a nearby farmstead, with minor light sources elsewhere. The proposed lighting scheme will only be detected as a result of sky glow rather than direct lighting. This will lead to a **Very Small** or **Small** (maximum) magnitude of impact, which is assessed as being a **Minor (neutral)** significant of effect for road users.

Viewpoint Location 22: From A458 at Buttington Bridge (Refer to Appendix 11 Sheet 6)

Reason for Selection

- 6.16.20. Selected to establish the potential effects of the lighting from the highway but from a visual alignment where the ERF building and stack is prominent on the skyline.

Assessment of Effects

- 6.16.21. Viewpoint Location 22 (close range) demonstrates the night sky, which remains generally dark, apart from sky glow from the Offa's Dyke Business Park and distant farmsteads which create a low level of glow within the vicinity of the Site. The proposed lighting scheme will add to the level of sky glow with a **Small** magnitude of impact. However, given the location within the highway corridor, there will be a **Very Small** magnitude of impact and a **Negligible (neutral)** significant of effect for workers at nearby employment areas and road users.

Conclusions

- 6.16.22. Thus, the broad conclusions concerning the proposed lighting scheme and effects of lighting upon the night time sky is that whilst some localised **Moderate (neutral)** significant of effect might be experienced, the overall effects are more likely to have a **Minor (neutral)** or **Negligible (neutral)** significant of effect for identified receptors.
- 6.16.23. In terms of significance of effect, given the baseline of a night sky that has existing light sources and is not wholly dark, in that sense, the proposed lighting scheme is not predicted to have a significant **adverse** effect.



7. PLANNING ASSESSMENT

7.1. INTRODUCTION

- 7.1.1. Planning policy at a national and local level has been reviewed regarding landscape and visual matters with respect to the Development.

7.2. NATIONAL PLANNING POLICY

Planning Policy Wales (Edition 10) (2018)

- 7.2.1. The document sets out the land use planning policies of the Welsh Government.
- 7.2.2. **Chapter 2 People and Places: Achieving Well-being Through Placemaking** states that a key planning principle is to achieve the right development in the right place. This involves making the best use of resources, including land which underpins sustainable development and limiting environmental impacts on natural, historic and cultural assets which must be protected. In addition, negative environmental impacts should be avoided in the wider public interest. Assessing the Sustainable Benefits of Development, lists the key factors relating to Social, Cultural and Environmental Considerations (paragraph 2.25).
- 7.2.3. The proposed ERF building and stack will be located in the quarry void in the central environs of the Site (see Illustrative Cross Sections in Appendix 3). The main ERF building features a graduated roofline to avoid a boxy appearance. The choice of cladding colours is intended to be sympathetic to the landscape setting and uses prevailing natural shades of green and light brown hues. Thus, it achieves a subtle yet high degree of architectural design presence.
- 7.2.4. The LVIA has assessed the individual phases of the Development. Landscape effects considers character (local and national), landscape designations and cultural heritage assets. Whilst visual effects appraises a range of receptors including residents, road users, visitors to Powis Castle and footpath users including on the Offa's Dyke National Trail.
- 7.2.5. In terms of landscape proposals, screen bunds will be planted with native broadleaved trees. The Landscape Masterplan also comprises areas of open mosaic habitat, species-rich neutral grassland and SuDS measures.
- 7.2.6. During the operation phase, the assessment has made no allowance for the additional screening benefits of proposed native woodland planting. Consideration is given to the screen bunds only. During the decommissioning phase, it will offer long term enhancement both in landscape and visual terms.
- 7.2.7. Of the **adverse** impacts or effects that have been identified, none appear to be so overriding to the context of the view such that it would have a wholly dominant or intrusive effect.



- 7.2.8. **Chapter 3 Strategic and Spatial Choices** refers to the five aspects of good design namely, access, character, community safety, environmental sustainability and movement. Strategic Placemaking states that development plans should identify sites for new development and notes the preference for previously developed land (also known as brownfield land) for development. In the countryside, new proposals should be of a scale and design that respects the character of the surrounding area (paragraph 3.37).
- 7.2.9. The Site represents brownfield land which has been allocated as being suitable for employment uses (including waste) through the Adopted Powys Local Development Plan 2011 – 2026 (April 2018).
- 7.2.10. **Chapter 5 Productive and Enterprising Places** refers to the following matters which have been applied to the Development:
- ◆ When considering planning applications for renewable and low carbon energy proposals ‘... **only the direct irreversible impacts on statutorily protected sites and buildings and their settings** (where appropriate) should be considered...’ (paragraph 5.9.17) The LVIA has not identified wholly dominant or intrusive consequences in relation to **adverse** effects resulting from the Development;
 - ◆ Planning authorities should identify and specify suitable ways to **mitigate adverse impacts of renewable and low carbon energy development** (paragraph 5.9.18). The LVIA has considered local planning policy and SPG adopted by Powys County Council later in this Section;
 - ◆ Consideration should be given to **how to avoid or minimise, adverse impacts** by addressing location, scale, design and other measures (paragraph 5.9.19): Mitigation measures incorporated into the Development include the design (e.g. graduated roofline), the selection of colour cladding for built form and location of screen bunds illustrated by the Landscape Masterplan. The design process has been undertaken over an extended period of time. Consideration has been given to comments in the Scoping Direction. Discussions have been held with the Design Commission for Wales in the interim period. Comments received during the pre-application consultation process have been taken into account; and
 - ◆ **Sustainable Waste Management Facilities** recognises the social, economic and environmental benefits of proposals. However, the impact of proposals on the local amenity, the natural and built environment should be suitably assessed to determine whether a planning application is acceptable. In cases where adverse impacts on amenity or the environment cannot be mitigated, then planning permission should be refused. (paragraph 5.13.2): The LVIA has been undertaken in adherence with current guidance and best practice. Landscape and visual effects have been considered. Impacts and effects during the individual phases of the Development have been assessed.



7.2.11. **Chapter 6 Distinctive and Natural Places** sets out how landscapes, the historic environment and habitats can be beneficial for Wales. Recognising the Special Characteristics of Places lists a number of different factors to be considered:

- ◆ **The Historic Environment** states historic assets (e.g. Scheduled Monuments, Historic Landscapes and Historic parks and gardens) and their settings should be protected (paragraph 6.1.7): Landscape and visual effects are assessed in Section 5 and 6 of the LVIA respectively;
- ◆ **Green Infrastructure** notes that the quality of the built environment should be enhanced by integrating green infrastructure into development including through landscaping and SuDS which may have wider biodiversity benefits (paragraph 6.2.5): The existing woodland on the southern Site boundary will be retained. The Landscape Masterplan includes SuDS measures, areas of open mosaic habitat and species-rich neutral grassland together with proposed native woodland planting. During the operation phase, the assessment has not factored in additional screening properties of new tree planting. In the decommissioning phase, as it matures, it will provide long term enhancement with **neutral** or **beneficial** effects;
- ◆ **Landscape:** Highlights the intrinsic contribution of the landscape to a sense of place. Local authorities should protect their special characteristics. In cases '*Where adverse effects on landscape character cannot be avoided, it will be necessary to refuse planning permission*'. (paragraph 6.3.4): At a Site level, **neutral** effects will occur during all phases of the Development. Outwith the Site, the Development including incorporated mitigation measures will result in **neutral** indirect effects on landscape character;
- ◆ **Landscape Information** including LANDMAP resources which can help inform planning proposals (paragraph 6.3.19): The LVIA has referred to the five LANDMAP Aspect layers and their Methodologies. Reference has been made to the guidance provided in the Adopted Landscape SPG (2019); and
- ◆ **Lighting concerns** new developments and the design of lighting systems (paragraph 6.8.4): The proposed lighting scheme during the operation of the Development has been evaluated in the LVIA. It was found to result in a localised **Moderate (neutral)** significant of effect in some cases, with a more general **Minor (neutral)** or **Negligible (neutral)** significant of effect.



Technical Advice Notes (TAN)

Technical Advice Note 5 Nature Conservation and Planning (September 2009)

- 7.2.12. The document sets out how the land use planning system should contribute to protecting and enhancing matters such as biodiversity.
- 7.2.13. With regards to the Development, as part of mitigation measures, the partially finished screen bund along Sale Lane will be completed. Along with the proposed screen bunds elsewhere within the Site, it will be grass seeded and planted with native broadleaved woodland as shown on the Landscape Masterplan. The proposals also comprise areas of open mosaic habitat and species-rich neutral grassland. They have the potential to offer long term **neutral** or **beneficial** effects.

Technical Advice Note 12 Design (March 2016)

- 7.2.14. The document sets out land use planning policy regarding promoting sustainability through good design and planning for sustainable buildings.
- 7.2.15. **Chapter 2 Defining Design** states that inappropriate design which does not adequately consider its context or incorporates opportunities to enhance existing character, quality and function of an area, should not be accepted due to harmful effects on existing communities (paragraph 2.6).
- 7.2.16. **Chapter 4 Delivering Good Design** outlines key objectives to reflect five aspects of good design (Access, Character, Community Safety, Environmental Sustainability and Movement). Character and Environmental Sustainability are relevant to the LVIA and their application to the Development is summarised in the table below.

Table 11: Key Objectives of Good Design

APPLICATION TO THE DEVELOPMENT	
Character	
Sustaining or enhancing local character, Promoting legible development, Promoting a successful relationship between public and private space, Promoting quality, choice and variety, Promoting innovative design.	<p>Landscape design (e.g. how the land will be treated to enhance/protect amenities and local area): The ERF building and stack will be located in a quarry void in the central environs of the Site (see Illustrative Cross Sections in Appendix 3). Mature woodland along the southern Site boundary will be retained. The Landscape Masterplan illustrates the screen bunds and planting which form part of the mitigation measures. The LVIA has considered landscape and visual effects during all phases of the Development.</p> <p>Scale (e.g. development in relation to surroundings, including how aspects such as the height and massing contributes to the existing hierarchy of development to reinforce character and impacts on other matters such as local amenity): Immediately adjacent to the north-west of the Site is an area of elevated landform and mature mixed woodland which will provide effective screening for the Development from the west. The proposed built form is arranged in a tight cluster and is set in the central environs of the Site and is set back from the eastern and southern Site boundaries.</p> <p>Amount (uses for the proposals, potential uses in short and longer term, efficient use of land whilst safeguarding the quality of life): The Site represents brownfield land which has been allocated for employment use including waste in the Adopted Powys Local Development Plan 2011 – 2026 (April 2018). Development will take place in an altered landscape through mineral extraction rather than a greenfield site. During the construction phase, stored materials will be located in temporary Laydown Areas. Laydown Areas 3 and 4 will be used for future employment based uses.</p> <p>Layout of development (how it integrates with its surroundings, relationship with wider site area and immediate vicinity, how external areas contribute</p>



APPLICATION TO THE DEVELOPMENT	
	<p>towards the development and make it more sustainable, site location and how it links into adjacent uses): As part of mitigation measures, the choice of cladding colour is intended to be sympathetic to the landscape setting and uses prevailing natural shades of green and light brown hues. Attention has been given to the form and massing of proposed built form together with the graduated roofline incorporated into the final design. The LVIA has taken into account incorporated mitigation measures as part of the assessment of landscape and visual effects outlined in Section 4. The operation phase does not allow for the additional screening benefits of new woodland planting. In the decommissioning phase, planting as it matures will provide long term enhancement in landscape and visual terms.</p> <p>Appearance (e.g. materials, lighting, colour and texture): See layout of development above.</p>
Environmental Sustainability	
<p>Achieving efficient use and protection of natural resources, Enhancing biodiversity and Designing for change.</p>	<p>Landscape/townscape setting (e.g. how development works with the site and its landscape context): See scale and layout of development above.</p> <p>Biodiversity and local environment (e.g. layout/planting): Proposed broadleaved woodland planting shown on the Landscape Masterplan will strengthen the existing framework of woodland both within and adjacent to the Site in the long term. The proposals also comprise areas of open mosaic habitat and species-rich neutral grassland. SuDS measures include a surface water attenuation pond together with amphibian wetland and peripheral habitat creation.</p>

7.2.17. **Chapter 5 Assessing Design Issues** addresses specific design matters. Overarching issues include strategic responses to climate change by incorporating SuDS measures and maximising of opportunities to enhance habitat connectivity.

7.2.18. Landscape and townscape draws attention to distinctive settlement patterns and also the diverse landscape and topography of Wales. Consideration should be given to how development relates to its urban or rural landscape and the importance of understanding landscape quality, including historic character, is essential to the design process. Good design solutions should maximise natural landscape assets and minimise environmental impacts on the landscape. Exterior layouts and appropriate landscape treatment may help to integrate large new employment buildings into their surroundings. See Table 11 above.

Technical Advice Note 21 Waste (February 2014)

7.2.19. The document sets out relevant land use planning considerations for new waste management facilities.

7.2.20. **Chapter 3 Strategic Planning for Waste** refers to factors which may affect the location of new waste management sites including within active or worked out quarries. The proposed ERF building and stack will be located in a quarry void in the central environs of the Site which has been allocated for employment uses (including waste) in the Adopted Powys Local Development Plan 2011 – 2026 (April 2018) (see Illustrative Cross Sections in Appendix 3).



7.2.21. **Chapter 15 Visual Impact** concerns the potential impacts of landscape character and visual amenity resulting from proposals, such as the proposed visual appearance of new waste management facilities. New development should use of existing topography to reduce visual impacts and should be sited where they will not have adverse impacts on statutorily protected landscapes. Planning applications should encompass landscape proposals to ease visual impacts. In addition, the height of stacks can be a major visual impact. Paragraph 15.4 lists a number of site specific issues and these have been applied to the Development:

- ◆ **Compound footprint:** The Site is c.18ha in size with the proposed built form associated with the ERF covering c.8ha;
- ◆ **Direct effects on landscape fabric, including Greenfield vs. Brownfield, removal of hedgerows, trees etc:** The Site represents a greatly altered landscape due to quarry working rather than a greenfield site. It constitutes a brownfield site which is partly in employment use through the Adopted Powys Local Development Plan 2011 – 2026 (April 2018) and has been identified as being suitable for waste uses. Existing mature woodland on the southern Site boundary will be retained as part of the Development. Mitigation measures include the screen bunds shown on the Landscape Masterplan. Proposed native woodland planting has the potential to provide long term landscape and visual benefits. The additional screening properties of new planting has not been taken into account in the assessment of effects in the operation phase;
- ◆ **Proximity of landscape designations:** The Site is not located in a statutory or non-statutory landscape designation (Figure L2). Landscape effects are assessed in Section 5 (see Table 8);
- ◆ **Site setting, for e.g. the proximity of listed buildings and/or conservation areas:** Landscape and cultural heritage designations which contribute to a sense of place and/or signify an amenity value for receptors have been assessed in the LVIA. (see Section 5);
- ◆ **Proximity of sensitive viewpoints:** Visual effects have been assessed for a range of receptors including residents, road users and visitors to Powis Castle. In addition, for footpath users on the Offa's Dyke National Trail, Severn Valley long distance footpath and general footpath network;
- ◆ **Stack height/number of stacks:** The proposed stack is 70m high. The photomontage views prepared as part of the LVIA illustrate the stack (where in view);
- ◆ **Presence of existing large built structures:** Cumulative landscape and visual effects have been examined with regards to existing large scale buildings located on the main transport networks and on the edge of settlement areas. The Development will not result in **adverse** cumulative effects;



- ◆ **Existing landform and nature of existing landscape:** The LVIA process has involved Site analysis and field work together with current landscape character resources including the five Aspect layers of LANDMAP. The Landscape Masterplan includes SuDS measures, areas of open mosaic habitat and species-rich neutral grassland together with proposed areas of native woodland planting. The latter will strengthen the existing framework of woodland both within and adjacent to the Site in the long term. This will complement the recommendations set out for the relevant Visual and Sensory Aspect Area and the Landscape Habitat Aspect Area; and
- ◆ **Presence/absence of screening features (trees, hedges etc.):** Woodland along the southern Site boundary will be retained as part of the Development. The Landscape Masterplan illustrates the screen bunds and planting which form part of mitigation measures. Ground modelling will also include the formation of the screen bund immediately south of the ERF building and the restored northern quarry face. This will reduce potential views of the lower elevations of built form. Immediately adjacent to the north-west of the Site is an area of elevated landform and mature mixed woodland which provides effective screening for the Development to the west.

Technical Advice Note 24 The Historic Environment (May 2017)

- 7.2.22. The document provides guidance on decision making for planning applications relating to the historic environment.
- 7.2.23. Cultural heritage designations which contribute to a sense of place and/or signify an amenity value for receptors have been assessed as part of the LVIA. Consideration has been given to comments made in the Scoping Direction. Information on cultural heritage designations has been identified through LANDMAP and other resources provided by Natural Resources Wales, CADW and individual properties.
- 7.2.24. Reference has been made to guidance published by The Welsh Government Historic Environment Service (CADW) regarding the assessment of effects on cultural heritage assets and their settings, in so far as it relates to landscape or visual matters. Landscape and visual effects have been assessed for heritage assets in Section 5 and 6 respectively.

7.3. ADOPTED POWYS LOCAL DEVELOPMENT PLAN 2011 – 2026 (APRIL 2018)

- 7.3.1. The Powys Local Development Plan 2011 – 2026 was adopted in April 2018 by Powys County Council.
- 7.3.2. **Policy E1 Employment Proposals on Allocated Employment Sites** refers to Buttington Quarry (Site Allocation Ref. No. P59 EA1) as a Local Site which is suitable for waste uses through Policy W1. It is described as a brownfield site which is partly in employment use and is reserved for further expansion for General Industrial Uses.



7.3.3. **Strategic Policy SP7 Safeguarding of Strategic Resources and Assets**

protects against unacceptable adverse impacts due to development proposals including on (2) historic environment designations, (3) recreational assets and (4) the valued characteristics and qualities of the landscape throughout Powys. With regards to Strategic Policy SP7:

- ◆ **(2) Historic environment designations:** The LVIA has considered the following and their settings (i) Registered Historic Landscapes, (ii) Registered Historic Parks and Gardens (iii) Scheduled Ancient Monuments, (iv) Listed Buildings and their curtilages and (v) Conservation Areas. The LVIA has found that there will be no unacceptable **adverse** effects due to the Development (see Section 5);
- ◆ **(3) Recreational Assets:** The LVIA has considered (i) Offa's Dyke National Trail, both landscape effects in terms of Scheduled Monuments and visual effects from sections of the route (Viewpoint Location 20 to 22 and 32) and (ii) the Public Rights of Way Network, with regards to general footpaths (Viewpoint Location 3, 5 to 7, 16, 19, 25, 27 and 31) and the Severn Valley long distance footpath (Viewpoint Location 30). No unacceptable **adverse** effects due to the Development have been identified; and
- ◆ **(4) The valued characteristics and qualities of the landscape throughout Powys:** The LVIA has referred to landscape character resources including LANDMAP. Site analysis identified local variations as the Site represents an altered landscape due to quarrying activities. It currently displays few of the valued characteristics and qualities of the county, or identified through LANDMAP, namely, MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area and the MNTGMLH033 Landscape Habitat Aspect Area. Mature woodland along the southern Site boundary will be retained as part of the Development. Proposed native broadleaved planting will complement the recommendations of the aforementioned Aspect Areas (see Section 5).

7.3.4. **Policy DM2 The Natural Environment** seeks to improve biodiversity through the enhanced connectivity of habitats within and beyond individual sites. The Landscape Masterplan incorporates SuDS measures including a surface water attenuation pond together with amphibian wetland and peripheral habitat creation. The proposals comprise areas of open mosaic habitat and species-rich neutral grassland. Proposed native woodland planting will strengthen the existing framework of woodland both within and adjacent to the Site in the long term.

7.3.5. **Policy DM4 Landscape** notes that development proposals outwith Towns, Large Villages, Small Villages and Rural Settlements should not, individually or cumulatively, have an unacceptable adverse effect on the valued characteristics and qualities of the Powys landscape.



7.3.6. In terms of (1) with regards to the Development:

- ◆ The ERF building and stack is located in the quarry void and is at a low level when compared to the other areas of the Site and the immediate vicinity (see Illustrative Cross Sections in Appendix 3). The aforementioned built form is arranged in a tight cluster and is set back from the eastern and southern Site boundaries which will feature screen bunds as part of mitigation measures shown on the Landscape Masterplan. Ground modelling within the central environs of the Site includes the formation of the screen bund immediately south of the ERF building and the restored northern quarry face. The layout takes advantage of the existing topography of the elevated landform and mature mixed woodland adjacent to the north-west;
- ◆ With respect to the ZTV, the hatched areas on Figures L1 and L3 denote the ZTV as an overlay for reference purposes. Figures L5 and L6 demonstrate the detailed ZTV for the principal study area. The aforementioned Figures have been reviewed as part of the landscape assessment (Section 5);
- ◆ The access road has been assessed as part of the LVIA and was found to result in a **Moderate (neutral)** significance of effect for road users given the current context of the Site and visual amenity experience;
- ◆ During the construction phase, materials will be stored in Laydown Areas, the largest of which will be used for future employment purposes; and
- ◆ Mitigation measures include the selection of cladding colours which is intended to be sympathetic to the landscape setting. The Site topography, its immediate vicinity and the presence of mature vegetation and incorporated mitigation measures, combine to create a relatively well contained site.

7.3.7. With regards to (2), the LVIA has been undertaken in line with best practice and current guidance as outlined in the Methodology (Appendix 1 and Section 2). Consideration has been given to landscape character resources at a national and county level including LANDMAP together with information relating to the Vale of Montgomery Historic Landscape No.35. The Visual Impact Assessment appraises visual effects for receptors within the principal study area adopted for the LVIA including in Powys and Shropshire.

7.3.8. The explanatory text for Policy DM4 Landscape draws attention to the importance of good design through Policy DM13 Design and Resources and use of LANDMAP for Policy DM4 Landscape. In terms of the latter, Aspect Areas with an Outstanding or High evaluation are particularly sensitive, especially when this evaluation occurs in more than one dataset. For Aspect Areas assessed as Moderate or Low, then consideration should be given to enhancement. Further guidance is provided in the Landscape SPG which was published in 2019 and is addressed later in this Section.



- 7.3.9. The LVIA has considered the five LANDMAP Aspect layers with regards to the Site. B&A has undertaken extensive Site analysis as part of the LVIA. Local variations occur within the Site which represents an altered landscape due to quarrying activities. The Landscape Masterplan includes proposed areas of native woodland planting to strengthen the existing framework of woodland both within and adjacent to the Site in the long term. Proposals will also feature areas of open mosaic habitat and species-rich neutral grassland. SuDS measures include a surface water attenuation pond together with amphibian wetland and peripheral habitat creation. This will complement recommendations set out for the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area and the MNTGMLH033 Landscape Habitat Aspect Area.
- 7.3.10. The above have the potential to provide long term **neutral** or **beneficial** effects.
- 7.3.11. **Policy DM7 Dark Skies and External Lighting** refers to lighting schemes for new developments. The proposed lighting scheme has been evaluated in the LVIA and was found to result in a localised **Moderate (neutral)** significant of effect in some cases, with a more general **Minor (neutral)** or **Negligible (neutral)** significant of effect. It will not result in individual or cumulative effects in relation to: (1) unacceptable levels of light pollution including in the countryside, (2) unacceptable adverse effects on the visibility of the night sky or (3) a nuisance or hazard for receptors (e.g. road users and residents).
- 7.3.12. **Policy DM13 Design and Resources** states that proposals should demonstrate good quality design and consider the qualities and amenity of the surrounding area. The Policy lists a number of considerations and the most relevant have been applied to the Development:
- ◆ (1) With regards to built form which should complement and/or enhance **the character of the surrounding area**, see Policy DM4 Landscape;
 - ◆ (2) It should contribute towards the **preservation of local distinctiveness and sense of place**. The LVIA has considered the five LANDMAP Aspect layers with regards to the Site and has undertaken extensive Site analysis as part of the LVIA process. Mitigation measures incorporated into the Development include the choice of cladding colour (i.e. natural shades of green and light brown hues). The existing topography and vegetation of the Site and in the immediate vicinity combined with the screen bunds illustrated by the Landscape Masterplan will reduce more direct views of the Development;
 - ◆ (3) It will not adversely affect **the setting and/or significant views of the Conservation Areas** located in the principal study area given a combination of topography, intervening built form and woodland (Figure L2);
 - ◆ (4) It will not have **unacceptable adverse impacts** on recreational and cultural heritage assets assessed in the LVIA. Landscape and visual effects have been examined in Sections 4 and 5 respectively;



- ◆ (9) The Development has incorporated **suitable mitigation measures** to reduce potential views from public footpaths, open access land and other recreation assets including National Trails. Of note is the selection of colour cladding for built form, graduated roofline of the main ERF building and landscape proposals illustrated by the Landscape Masterplan;
- ◆ (10) With regards to the **location of the Site and access to the Development**. The Site is located adjacent to the A458 which is a main transport route. As part of the Development, the construction of the access road has been assessed in the LVIA; and
- ◆ (11) Visual effects have been **assessed for local residents** including from settlement areas and individual farmsteads and residential properties.

- 7.3.13. **Policy M5 Restoration and Aftercare** concerns proposals for mineral working and refers to the restoration and aftercare of land the potential for beneficial re-use and enhancement.
- 7.3.14. **Policy RE1 Renewable Energy** states that proposals will be permitted subject to specific criteria. In relation to (3) no cumulative or in combination effects have been identified in relation to the Development and other existing, approved or proposed renewable energy development. (4) Mitigation measures form an integral part of the Development and include the location and layout of built form within the Site (i.e. in a quarry void) (see Illustrative Cross Sections in Appendix 3), graduated roofline of the main ERF building, the choice of cladding colour and the proposed screen bunds shown on the Landscape Masterplan.
- 7.3.15. **Policy T1 Travel, Traffic and Transport Infrastructure** states that proposals should incorporate the following principal requirements (2) manage any impacts to the network and the local environment to acceptable levels. The access road has been assessed as part of the LVIA and was found to result in a **Moderate (neutral)** significance of effect for road users given the current context of the Site and visual amenity experience;
- 7.3.16. **Policy W1 Location of Waste Development** states that proposals which accord with the waste hierarchy will be supported on employment sites identified in Policies E1 and E4. The explanatory text notes that new development must be appropriate regarding size and scale and must not have an adverse impact upon the landscape, the natural environment or local amenity. See Policy DM4 Landscape and Policy DM13 Design and Resources.
- 7.3.17. **Policy W2 Waste Management Proposals** will be permitted where they meet specific criteria. Of note is that there should be no adverse impacts on (3) amenity or the environment and (5) features of built heritage interest. In addition, (6) there should be no adverse landscape impacts and visual impacts are minimised through sensitive location and landscaping proposals. See Policy DM4 Landscape and Policy DM13 Design and Resources.



7.4. SUPPLEMENTARY PLANNING GUIDANCE (SPG)

Biodiversity and Geodiversity SPG (Adopted October 2018)

- 7.4.1. The document supports Policy SP7 Safeguarding of Strategic Resources and Assets and Policy DM2 The Natural Environment of the Adopted Powys Local Development Plan 2011 – 2026 (April 2018).
- 7.4.2. Reference is made to the potential to incorporate resilience into proposals and the following is relevant to the Landscape Masterplan:
- ◆ The **proposed native broadleaved woodland** will be beneficial for Extent, Diversity and Connectivity (Principal Impacts) and Condition (Secondary Impacts); and
 - ◆ The **surface water attenuation pond, amphibian wetland and peripheral habitat creation** will add to Extent, Diversity and Connectivity (Principal Impacts) as well as Adaptability and Condition (Secondary Impacts).
- 7.4.3. Further to the above, the proposals will incorporate areas of open mosaic habitat and species-rich neutral grassland.

Landscape SPG (Adopted April 2019)

- 7.4.4. The document accompanies relevant policies of the Adopted Powys Local Development Plan 2011 – 2026 (April 2018) including Strategic Policy SP7 Safeguarding of Strategic Resources and Assets, Policy DM4 Landscape, Policy DM13 Design and Resources. It should be noted that it was published prior to the update of the LANDMAP Cultural Landscape Aspect layer in 2019.
- 7.4.5. Appendix 1 includes the LVIA Methodology in full and a summary is provided in Section 2. The following addresses the main points regarding the approach set out in the SPG:
- ◆ **Site Analysis:** Site assessment and field work were conducted between 2016 and 2020 during both summer and winter months. This was carried out before and after the Scoping Direction. The initial desk study was commenced in May 2018 and reviewed in July 2020 and January 2021. The results of field work, Site assessment and a review of plan and desk based research are presented in Section 3: The Baseline Situation;
 - ◆ **Study Area:** A preliminary study area of up to 20km was initially adopted with primarily assessable effects detected up to c.15km and key effects expected to be within 10km, given the nature of the Development. In order to determine the principal study area, a ZTV has been identified using computer based analysis established on the potential visibility of the stack (purple shading) and the upper roof section of the ERF combined with the stack (blue shading) as shown on Figure L5: Zone of Theoretical Visibility (ZTV) Northern Area and Figure L6: Zone of Theoretical Visibility (ZTV) Southern Area;



- ◆ **Design Commission for Wales:** In July 2020, preliminary discussions were held with the DCW. Comments regarding the design concept and building appearance were received. The presentation to the DCW included Plans showing the Zone of Theoretical Visibility (ZTV) demonstrating the area of potential visibility based on the upper elevations of the energy recovery hall and the stack together with the proposed Viewpoint Locations to be assessed. The Plans were submitted to the DCW in the same month;
- ◆ **Photographic Figures:** The photographs presented in the LVIA are a small section of those taken during field work and Site assessment. Others are available if required on request;
- ◆ **Photomontage views:** A single frame photograph photomontage view has been included for Viewpoint Locations 1 to 33. Annotated panoramic viewpoint photographs and a single frame photograph enlargement are also included. The visuals have been prepared in accordance with current guidance including Technical Guidance Note 06/19 (September 2019) issued by the Landscape Institute. The LVIA also includes an illustrated maximum calculated plume (Appendix 14) and selected winter views (Appendix 16). Wireframes from a number of Viewpoint Locations are provided in Appendix 13;
- ◆ **LANDMAP:** The LVIA has addressed the five layers of LANDMAP and their relevant Methodologies. Information is provided in the baseline situation in relation to the Site and principal study area. Figure L3 identifies the Visual and Sensory Aspect Areas within 10km. Site analysis and the Aspect Areas are considered in Section 5. The assessment has taken into account the Overall Evaluation, the Evaluation Matrix and Recommendations for each Aspect layer where relevant to the Development. The indirect effects on Visual and Sensory Aspect Areas within the principal study area are assessed. Appendices 6 to 8 include more detailed information on the Aspect layers;
- ◆ **Landscape Masterplan:** The landscape proposals have been incorporated into the overall design;
- ◆ **Landscape Character:** Reference has been made to LANDMAP and resources at a national and county level;
- ◆ **Landscape Designations:** Landscape and cultural heritage designations which contribute to a sense of place and/or signify an amenity value for receptors have been assessed. Consideration has been given to comments made in the Scoping Direction;
- ◆ **Visual Impact Assessment:** Consideration has been given to a range of receptors incorporating static and sequential views. Comments made in the Scoping Direction have been taken into account; and
- ◆ **Cumulative Effects:** Cumulative landscape and visual effects have been assessed in terms of large scale industrial buildings located on the main road network and on the edge of settlements. The Development will not result in **adverse** cumulative effects.



- 7.4.6. This LVIA has been undertaken with due regard to the GLVIA Third Edition and the policy set out in the Adopted Powys Local Development Plan 2011 – 2026 (April 2018).
- 7.4.7. The assessment of landscape and visual effects has demonstrated that the Development can be accommodated successfully both in terms of the Site and its wider setting and will not result in overriding **adverse** effects on the current landscape character or visual amenity. The mitigation measures such as the choice of cladding colour, graduated roofline of the main ERF building and screen bunds will help to reduce potential **adverse** effects.
- 7.4.8. Relevant factors that may assist landscape integration and listed in paragraph 6.19 of the SPG have been considered with regards to the Development:
- ◆ **Location:** The Development is sited within brownfield land rather than open countryside. It has been allocated for employment uses including waste in the Adopted Powys Local Development Plan 2011 – 2026 (April 2018);
 - ◆ **Skyline:** The ERF building and stack will be situated in a former quarry void in the central part of the Site and is set on a north-east to south-west configuration (see Illustrative Cross Sections in Appendix 3). The Visual Impact Assessment has assessed visual effects for a range of receptors. Skylines will be affected, notably from Trewern (Viewpoint Location 9 to 12) for residents (upper floor windows and ground floor locations/gardens) and road users. At Viewpoint Location 22 From A458 at Buttington Bridge for Offa's Dyke Path National Trail users, workers at nearby employment areas and road users. The context of the architectural design of the Development which has been designed to merge with the existing landscape setting as well as scale and height of other skyline features are mitigating influences in this respect. The main ERF building features a graduated roofline to avoid a boxy appearance. Consequently, the effects are no so overriding to lead to a wholly intrusive effect;
 - ◆ **Focus and orientation of prevailing views:** The Site is located within a transitional area between the lower levels of the Severn Valley to the west and the higher elevations of the Long Mountain to the west. Panoramic views are available from hill summits to the north-east, east and west of the Site at distance;
 - ◆ **Development sited next to strong patterns of landform and trees:** The Site is relatively well contained due to existing vegetation and topography to the north-west of the Site and mature woodland on the southern Site boundary. The partially finished screen bund along Sale Lane will be completed and along with other proposed screen bunds will be grass seeded and planted with native broadleaved trees;
 - ◆ **Prevalent building form and architectural character:** The ERF building and stack forms a tight cluster of built form and is located in the central part of the Site. See bullet 2 Skyline;



- ◆ **Location of development from remote, wilder areas:** The Site is located off a main transport corridor. According to LANDMAP, the Site is in the MNTGMCLS044 Crewgreen to Forden Hill and Scarp Cultural Landscape Services Aspect Area. Therefore, the Site is not within an International Dark Sky Reserve or Dark Sky Reserve;
- ◆ **Reduced lighting, consider designing to Dark Skies standard:** According to LANDMAP, the Site is within the MNTGMCLS044 Crewgreen to Forden Hill and Scarp Cultural Landscape Services Aspect Area. Night Time Light Pollution for the Aspect Area is Slight. In the immediate vicinity is the MNTGMCLS090 River Severn Flood plain (c.300m north) which includes the main transport corridors. Night time light pollution is recorded as Substantial. The proposed lighting scheme has been evaluated in the LVIA and was found to result in a localised **Moderate (neutral)** significant of effect in some cases with a more general **Minor (neutral)** or **Negligible (neutral)** significant of effect for identified visual receptors during operation;
- ◆ **Attention to colour of buildings:** As part of mitigation measures, the choice of cladding colours is intended to be sympathetic to the landscape setting and uses prevailing natural shades of green and light brown hues. The proposed stack is bicolour to mitigate skyline views where available; and
- ◆ **Maintaining and enhancing distinctiveness:** The LVIA has considered the five LANDMAP Aspect layers with regards to the Site. The Landscape Masterplan includes proposed areas of native woodland planting to strengthen the existing framework of woodland both within and adjacent to the Site in the long term. SuDS measures comprise a surface water attenuation pond together with amphibian wetland and peripheral habitat creation. The proposals will also feature areas of open mosaic habitat and species-rich neutral grassland. This will complement recommendations set out for the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area and the MNTGMLH033 Landscape Habitat Aspect Area with the potential to provide long term **neutral** or **beneficial** effects.



8. SUMMARY AND CONCLUSIONS

8.1. INTRODUCTION

- 8.1.1. This Section presents the key findings of the Landscape and Visual Impact Assessment (LVIA). It has been undertaken in adherence with industry guidelines and best practice. Consideration has been given to comments in the Scoping Direction and the pre-application process.
- 8.1.2. The assessment takes into account the mitigation measures incorporated into the Development. It should be noted that in the operation phase, no allowance is made for the additional screening benefits offered by the proposed native woodland planting illustrated by the Landscape Masterplan. During the decommissioning phase, consideration has been given to new planting which may offer long term enhancement in terms of landscape and visual effects.
- 8.1.3. A preliminary study area of up to 20km was initially adopted with primarily assessable effects detected up to c.15km and key effects expected to be within 10km, given the nature of the Development. In order to determine the principal study area, a ZTV has been identified using computer based analysis established on the potential visibility of the stack and the upper roof section of the ERF combined with the stack.

8.2. LANDSCAPE CHARACTER EFFECTS

- 8.2.1. At a national level, the Site is located in the Shropshire Hills (outliers) NLCA No.18 and at a regional scale, it is in the Mid-Wales Area Statement (2018).
- 8.2.2. LANDMAP provides information at a more detailed level through five Aspect layer. All layers have been reviewed in relation to the Site and principal study area. B&A has carried out Site analysis as part of the LVIA process in line with LANDMAP Methodologies and guidance provided in the Adopted Landscape SPG (2019).
- 8.2.3. The Site is located in the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area. It is classified as Moderate (local importance) in the LANDMAP Overall Evaluation. With regards to the Evaluation Matrix, the following applies: Scenic quality (High), Integrity (Moderate), Character (Moderate) and Rarity (Low). Reference is made to attractive views outwith the Aspect Area of the *'surrounding rolling and upland landscapes'*.
- 8.2.4. Although characteristics typical of the Aspect Area are found within the immediate vicinity including a pattern of agricultural fields (both arable and pasture) divided by hedgerows and small woodland blocks, important local variations occur within the Site. It includes a few distinctive attributes, notably the broad band of mature woodland on the southern Site boundary.



- 8.2.5. Whereas, the majority of the Site represents a much changed landscape due to mineral extraction and currently includes typical features such as tracks, exposed mineral and a partially complete screen bund. Overall, a **Low-Medium** sensitivity has been applied to the Site by B&A.
- 8.2.6. The area encompassing the proposed ERF building and stack will be sited in the central environs of the Site within a quarry void. During the construction phase, the Development will require necessary ground modelling and earthworks to take place (see Appendix 3). The screen bund adjacent to Sale Lane will be completed. Along with other proposed screen bunds, this will be grass seeded and planted with native woodland trees as part of mitigation measures. Whilst during the operation phase, it will introduce new elements namely, the proposed ERF building and stack. The colours of the aforementioned buildings will be appropriate for the landscape setting.
- 8.2.7. Decommissioning will involve the removal of built form and ground restoration. The proposals have the potential to provide **neutral** or potentially, **beneficial** effects. As new native woodland planting matures, it will provide long term enhancement and mitigation for future employment uses at the Site. Whilst the Landscape Masterplan also incorporates areas of open mosaic habitat and species-rich neutral grassland. SuDS measures include a surface water attenuation pond together with amphibian wetland and peripheral habitat creation.
- 8.2.8. At a Site level, during construction, there will be a **Medium to Large** magnitude of impact and a **Moderate (neutral)** significance of effect. In the operation phase, there will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect. The decommissioning phase will result in a **Medium to Large** magnitude of impact and **Moderate (neutral)** significance of effect overall but with the potential for long term **beneficial** effects as set out above. This could lead to a **Small** magnitude of impact and a **Minor (beneficial)** significance of effect.
- 8.2.9. With regards to indirect Effects on the MNTGMVS370 Crewgreen to Forden Hill and Scarp Visual and Sensory Aspect Area.
- 8.2.10. During construction, there will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect. During operation, at a close range, there will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect. At a medium range, this will reduce to a **Small** or potentially, **Very Small** magnitude of impact and a **Minor (neutral)** significance of effect. During the decommissioning phase, there will be a **Medium** magnitude of impact and a **Moderate (neutral)** significance of effect overall. There is the potential for some long term **beneficial** effects to occur due to proposed native woodland planting as it matures, notably within close range. This has the potential to result in a **Minor (beneficial)** significance of effect within this distance range.



- 8.2.11. In terms of indirect effects on other Visual and Sensory Aspect Areas. There will be a **Medium** magnitude of impact at a close range in terms of the MNTGMVS650 River Severn Flood Plain during all phases of the Development with a **Moderate (neutral)** significance of effect. During operation at a medium range, this will reduce to a **Very Small** level.
- 8.2.12. The remainder of Aspect Areas will have a **Small** magnitude of impact or lower for all phases with a notable **neutral** significance of effect.
- 8.2.13. There will either be **No Impact** or a **Negligible** magnitude of impact and resultant significance of effect (**neutral**) during all phases of the Development relating to The Shropshire Landscape Typology (2006) Landscape Types within the principal study area.

8.3. LANDSCAPE DESIGNATIONS EFFECTS

- 8.3.1. The Site is not located in a statutory or non-statutory landscape designation.
- 8.3.2. Effects are limited on the landscape designations identified in the LVIA due to a combination of distance, localised topography and vegetation. The majority recorded **No Impact**.
- 8.3.3. A **Small** magnitude of impact and a **Minor-Moderate (adverse)** significance of effect was recorded at Maesfron (Grade II) Registered Park and Garden of Special Historic Interest in Wales (CADW). A **Very Small** magnitude of impact and a **Minor (adverse)** significance of effect during all phases of the Development was noted for residents at Trewern Hall (Grade II* Listed Building). There will be a **Negligible** magnitude of impact and resultant significance of effect (**neutral**) on Powis Castle and Garden.

8.4. VISUAL EFFECTS

Visual Impact Assessment

- 8.4.1. In total 35 Viewpoint Locations have been assessed as part of the LVIA.
- During Construction*
- 8.4.2. Relevant are views of crane movements, earthworks and ground modelling to facilitate the building of the ERF. Mitigation measures such as the screen bunds will provide effective screening features, notably at a close range. Also of importance is the Site location and higher landform adjacent to the west, particularly with regards to reducing wider views from the Severn Valley. Overall, magnitude of impact ranged from **Large** to **Negligible** and **No Impact**.
- 8.4.3. Viewpoint Locations which recorded a **Medium** magnitude of impact or higher are summarised as follows.
- 8.4.4. In the **immediate vicinity**, Viewpoint Location 1 and 2 are from Heldre Lane. **Large** magnitude of impact and a **Major (adverse)** significance of effect for residents and a **Moderate (adverse)** significance of effect for road users. A similar level was recorded for road users at Viewpoint Location 2.
- 8.4.5. At a **close range**, a **Medium to Large** magnitude of impact was noted for the following:



- ◆ Viewpoint Location 10 (Garreg Bank (lower), Trewern) for residents (ground floor locations/gardens) with a **Moderate to Major (adverse)** significance of effect and a **Moderate (adverse)** significance of effect for road users;
- ◆ Viewpoint Location 22 (A458 at Buttington Bridge) with a **Moderate to Major (adverse)** significance of effect for Offa's Dyke Path National Trail users and a **Moderate (adverse)** significance of effect for workers at nearby employment areas and road users;
- ◆ Viewpoint Location 3, 4 and 6. **Moderate to Major (adverse)** significance of effect for residents at Viewpoint Location 4 (Heldre Lane). A **Moderate (adverse)** and **Moderate (neutral)** significance of effect will occur for footpath users at Viewpoint Location 3 (south of Nelly Andrews' Green) and Viewpoint Location 6 (on Heldre Hill) respectively; and

8.4.6. At the same range, a **Medium** magnitude of impact applies to Viewpoint Location 5 and 7 (public footpaths). A **Moderate (neutral)** and **Moderate (adverse)** significance of effect applied for footpath users. A **Moderate to Major (adverse)** significance of effect was noted for residents (ground floor locations/gardens) at Viewpoint Location 7. Viewpoint Location 16 (Moel y Golfa) to the north-east, a **Moderate (adverse)** significance of effect was recorded for footpath users.

8.4.7. A maximum **Medium** magnitude of impact occurred:

- ◆ At a **close range**, in settlement areas in and around Trewern at Viewpoint Location 8, 9, 11 and 13 where a **Moderate (adverse)** significance of effect for residents (upper floor windows) and **Minor-Moderate (adverse)** for road users applies. Viewpoint Location 19 (near Pool Quay), **Moderate to Major (adverse)** significance of effect for residents (ground floor locations/gardens) and a **Moderate (adverse)** significance of effect for footpath users. Viewpoint Location 20 (A483 at Pool Quay), **Moderate to Major (adverse)** significance of effect for Offa's Dyke Path National Trail users and a **Minor-Moderate (adverse)** significance of effect for road users;
- ◆ **Medium range**: Viewpoint Location 18 (established viewing point at Rodney's Pillar) **Moderate to Major (adverse)** significance of effect. Viewpoint Location 23 (from B4381 at Welshpool) **Moderate (neutral)** significance of effect for residents (upper floor windows) and a **Minor-Moderate (neutral)** significance of effect for road users; and
- ◆ **Long range**: Viewpoint Location 24 (Powis Castle) **Major (neutral)** significance of effect for visitors. Viewpoint Location 25 (Y Golfa) with a **Moderate (neutral)** significance of effect for footpath users.

8.4.8. Of the Viewpoint Locations which recorded a **Medium** magnitude of impact during construction, the following were considered to be significant: Viewpoint Location 8, 9, 11, 13, 18, 24 and 25.

During Operation



- 8.4.9. Relevant in this phase are the differing views of the upper elevations and rooflines of the ERF building including its graduated appearance. In terms of mitigation measures, the selection of cladding colours is appropriate with respect to its landscape setting. As stated, the assessment allows for the screening properties of screen bunds and not proposed native woodland planting shown on the Landscape Masterplan.
- 8.4.10. Overall, magnitude of impact ranged from potentially **Large** to **Negligible**. Viewpoint Locations which recorded a **Medium** magnitude of impact or higher are summarised as follows.
- 8.4.11. In the **immediate vicinity**, at Viewpoint Location 1 (Heldre Lane) and there will be a **Medium to Large** (potentially **Large**) magnitude of impact. This will result in a **Major (adverse)** significance of effect for residents (ground and potential first floor locations/gardens) and a **Moderate (adverse)** significance of effect for road users (worst case scenario). In the same range, at Viewpoint Location 2 (Heldre Lane) a **Medium to Large** magnitude of impact applied for road users with a **Moderate (adverse)** significance of effect.
- 8.4.12. In **close range**, a **Medium to Large** magnitude of impact occurred at Viewpoint Location 10 (Garreg Bank (lower), Trewern) for residents (ground floor locations/gardens) with a **Moderate to Major (adverse)** significance of effect and a **Moderate (adverse)** significance of effect for road users.
- 8.4.13. Of the Viewpoint Locations which recorded a **Medium** magnitude of impact during operation, the following were considered to be significant: Viewpoint Location 3, 4, 8, 9, 11 to 13 and 22 for the following receptor groups at close range:
- ◆ Viewpoint Location 3 (south of Nelly Andrews' Green), with a **Moderate (adverse)** significance of effect for footpath users;
 - ◆ Viewpoint Location 4 (Heldre Lane), a **Moderate to Major (adverse)** significance of effect for residents (ground floor locations/gardens);
 - ◆ From settlement areas in and around Trewern at Viewpoint Location 8, 9 and 11 to 13 with a **Moderate (adverse)** significance of effect for residents (upper floor windows); and
 - ◆ Viewpoint Location 22 (A458 at Buttington Bridge), **Moderate to Major (adverse)** significance of effect for Offa's Dyke Path National Trail users.

During Decommissioning

- 8.4.14. The main visual effects concern crane movements involved with the removal of built form. Ground restoration would be harder to identify overall in part due to the presence of screen bunds and proposed native woodland planting both within the Site and on its periphery. New tree planting has the potential to provide long term enhancement including with regards to the wider Site setting.
- 8.4.15. Overall, magnitude of impact ranged from **Medium** to **Negligible** or **No Impact**. A **Small** or lower magnitude of impact occurred more frequently overall when compared to the construction and operation phases.



- 8.4.16. Of the Viewpoint Locations which noted a **Medium** or **Small** magnitude of impact during decommissioning, the following were considered to be significant: Viewpoint Location 1 (immediate vicinity), Viewpoint Location 3, 4, 7, 10, 19, 20 and 22 (close range) and Viewpoint Location 14 (medium range) as follows.
- 8.4.17. In the immediate vicinity, Viewpoint Location 1 (Heldre Lane) a **Moderate to Major (adverse)** significance of effect for residents.
- 8.4.18. At a close range:
- ❖ Viewpoint Location 3, there will be a **Moderate (adverse)** significance of effect for footpath users;
 - ❖ Viewpoint Location 4 (Heldre Lane) for residents (ground floor locations/gardens) with a **Moderate to Major (adverse)** significance of effect;
 - ❖ Viewpoint Location 7 (immediately south of Pob Ceiniog) for residents (ground floor locations/gardens) with a **Moderate (adverse)** significance of effect;
 - ❖ Viewpoint Location 10 (Garreg Bank (lower), Trewern), **Moderate to Major (adverse)** significance of effect for residents (ground floor locations/gardens);
 - ❖ Viewpoint Location 19 (near Pool Quay) with a **Moderate (adverse)** significance of effect for residents (ground floor locations/gardens);
 - ❖ Viewpoint Location 20 (A483 at Pool Quay) for Offa's Dyke Path National Trail users with a **Moderate (adverse)** significance of effect; and
 - ❖ Viewpoint Location 22 From A458 at Buttington Bridge for Offa's Dyke Path National Trail users with a **Moderate to Major (adverse)** significance of effect.
- 8.4.19. At a medium range, there will be a **Small** magnitude of impact at Viewpoint Location 14 (from Bacheldre Lane) with a **Moderate (adverse)** significance of effect for residents (ground floor locations/gardens).
- 8.4.20. With regards to visual capacity, the majority of the Site including the existing quarry void has been allocated for employment uses in the Powys Local Development Plan 2011 – 2026. A **Medium** capacity for change has been assigned by B&A in this instance for the visual amenity at all distance ranges. Effects have informed the evaluation of landscape capacity considered in Section 5.
- 8.4.21. In terms of visual effects relating to the proposed site access, there will be a **Large** magnitude of impact and **Moderate (neutral)** significance of effect due to the context of the existing dominant road use and visual amenity experience.
- 8.4.22. With regards to visual effects relating to the proposed site access, there will be a **Large** magnitude of impact and **Moderate (neutral)** significance of effect due to the context of the existing dominant road use and visual amenity experience.



8.4.23. Having conducted the Visual Impact Assessment, the following is of note regarding the Development:

- ◆ The ERF building and stack is in a **quarry void** and located at a low level as demonstrated by the Illustrative Cross Sections in Appendix 3. In addition, it is also set back from the eastern and southern Site boundaries. Areas of the Site previously subject to mineral working will be modified to provide screening properties (e.g. bunds);
- ◆ The **alignment of the ERF building and stack** results in a partial acute angle of views for many receptors;
- ◆ In the **immediate vicinity**, topography and in places woodland, prevents or reduces potential views to the north-east and west;
- ◆ The Site **does not represent a key area of open land**, rather it forms part of a broader elevated area segmented between the lower levels of the Severn Valley (to the west) and elevated Long Mountain (to the east). Both form part of the background scene for views and can detract from the presence of the Development;
- ◆ Views of the ERF building and stack when seen at the skyline are **simple rather than cluttered** due to the design of the buildings. In a wider context, hill summits and formations are prominent features for many views;
- ◆ For the Viewpoint Locations assessed in the LVIA, the **graduated roofline of the main ERF building** helps to integrate the proposed built form into the wider landscape setting of agricultural fields and woodland; and
- ◆ A reduction in effects due to **mitigation measures** are not wholly dependent on the screen bunds. Although a key aspect of the design, the choice of colour cladding for built form which is sympathetic to the landscape setting and uses prevailing natural shades of green and light brown hues is a key factor and visual consideration.

Cumulative Effects

- 8.4.24. Cumulative landscape and visual effects have been assessed in terms of large scale industrial buildings located on the main road network and on the edge of settlements. The Development will not result in **adverse** cumulative effects.

Consideration of Winter Views

- 8.4.25. Winter views were considered in detail with respect to Viewpoint Locations 2, 5, 8 to 11 together with views close to Viewpoint Locations 4 and 22. The assessment evaluated whether increased views may occur due to a reduction in tree cover and if the proposed cladding colour scheme is suitable during winter.
- 8.4.26. The LVIA considered winter views from specific Viewpoint Locations. In all cases, it was found that the results would concur with that of summer views in the visual impact assessment. In addition, the cladding colour scheme with its muted tones and different green hues, complements the rural landscape setting. Of note in the operation phase, is that the LVIA considers



a worst case scenario overall (i.e. screen and not the additional screening properties of new native woodland planting). Woodland will gradually offer an enhanced visual experience as it matures and this is recognised in the decommissioning phase for views, notably within close range.

Consideration of Plume Visibility

- 8.4.27. The average calculated visible plume does not represent a significant visual detractor. It is acknowledged that when visible, it has the potential to heighten the visibility of the stack and therefore, the Development in a wider landscape context. The maximum visible plume length has been evaluated from Viewpoint Location 11 (Garreg Bank (upper), Trewern). The results do not predict an increase in the overall significance of effect beyond that assessed in the visual impact assessment.

Assessment of Lighting Effects

- 8.4.28. The proposed lighting scheme has been evaluated in the LVIA and was found to result in a localised **Moderate (neutral)** significant of effect in some cases with a more general **Minor (neutral)** or **Negligible (neutral)** significant of effect.

8.5. PLANNING POLICY

- 8.5.1. With regards to current planning policy relating to landscape and visual matters, the Development will be supportive of policy at a national and local level including Planning Policy Wales (Edition 10) (2018), Technical Advice Notes 5, 12, 21 and 24, the Adopted Powys Local Development Plan 2011 – 2026 (April 2018) (namely Policy E1, SP7, DM2, DM4, DM7, DM13, M5, RE1, T1, W1 and W2) together with Biodiversity and Geodiversity SPG (Adopted October 2018) and Landscape SPG (Adopted April 2019).

8.6. CONCLUSIONS

- 8.6.1. The LVIA has assessed the individual phases of the Development regarding landscape and visual effects.
- 8.6.2. The Development has been allocated for employment development through the Adopted Powys Local Development Plan 2011 – 2026 (April 2018).
- 8.6.3. The Development will result in notable changes both regarding the Site and in a wider context. Mitigation measures form an integral part of the Development.
- 8.6.4. With regards to the architectural design, further to the location of built form within the quarry void, the graduated roofline of the main ERF building and the choice of cladding colours are intended to be sympathetic to the landscape setting. Also of importance is the size of the Site compared to that allocated for proposed built form which allows extensive landscape proposals to be incorporated into the design including screen bunds, SuDS measures, areas of open mosaic habitat and species-rich neutral grassland and proposed native woodland planting. The latter will remain in perpetuity and offers long term enhancement and mitigation for future employment uses at the Site. Such measures will have the potential to provide **neutral**



or **beneficial** effects in time both in respect of the Site and its wider environs.

- 8.6.5. Of the **adverse** impacts or effects that have been identified in the Assessment, none are so overriding that it would have a wholly dominant or intrusive visual effect nor will it remove distinctive attributes of landscape character identified through LANDMAP.
- 8.6.6. No mitigation measures further to those outlined and taken into account in the Assessment are recommended.



FIGURE LIST

FIGURE NO.	TITLE
Figure L1	Site Location and Landscape Character Classification (National Level)
Figure L2	Landscape Designations
Figure L3	LANDMAP Visual and Sensory Aspect Areas (within 10km)
Figure L4 (Sheet 1)	Topographic Analysis (Northern area)
Figure L4 (Sheet 2)	Topographic Analysis (Southern area)
Figure L5	Zone of Theoretical Visibility (ZTV) Northern Area
Figure L6	Zone of Theoretical Visibility (ZTV) Southern Area
Figure L7	Photograph Location Plan (Northern area)
Figure L8	Photograph Location Plan (Southern area)
Figure L9	Viewpoint 1 Existing View (Panoramic View)
Figure L10	Viewpoint 1 Existing View (Single Photograph)
Figure L10A	Viewpoint 1 Existing View (Single Photograph)
Figure L11	Viewpoint 1 Photomontage View (Single Photograph)
Figure L11A	Viewpoint 1 Photomontage View (Single Photograph)
Figure L12	Viewpoint 2 Existing View (Panoramic View)
Figure L13	Viewpoint 2 Existing View (Single Photograph)
Figure L14	Viewpoint 2 Photomontage View (Single Photograph)
Figure L15	Viewpoint 3 Existing View (Panoramic View)
Figure L16	Viewpoint 3 Existing View (Single Photograph)
Figure L17	Viewpoint 3 Photomontage View (Single Photograph)
Figure L18	Viewpoint 4 Existing View (Panoramic View)
Figure L19	Viewpoint 4 Existing View (Single Photograph)
Figure L20	Viewpoint 4 Photomontage View (Single Photograph)
Figure L21	Viewpoint 5 Existing View (Panoramic View)
Figure L22	Viewpoint 5 Existing View (Single Photograph)
Figure L23	Viewpoint 5 Photomontage View (Single Photograph)
Figure L24	Viewpoint 6 Existing View (Panoramic View)



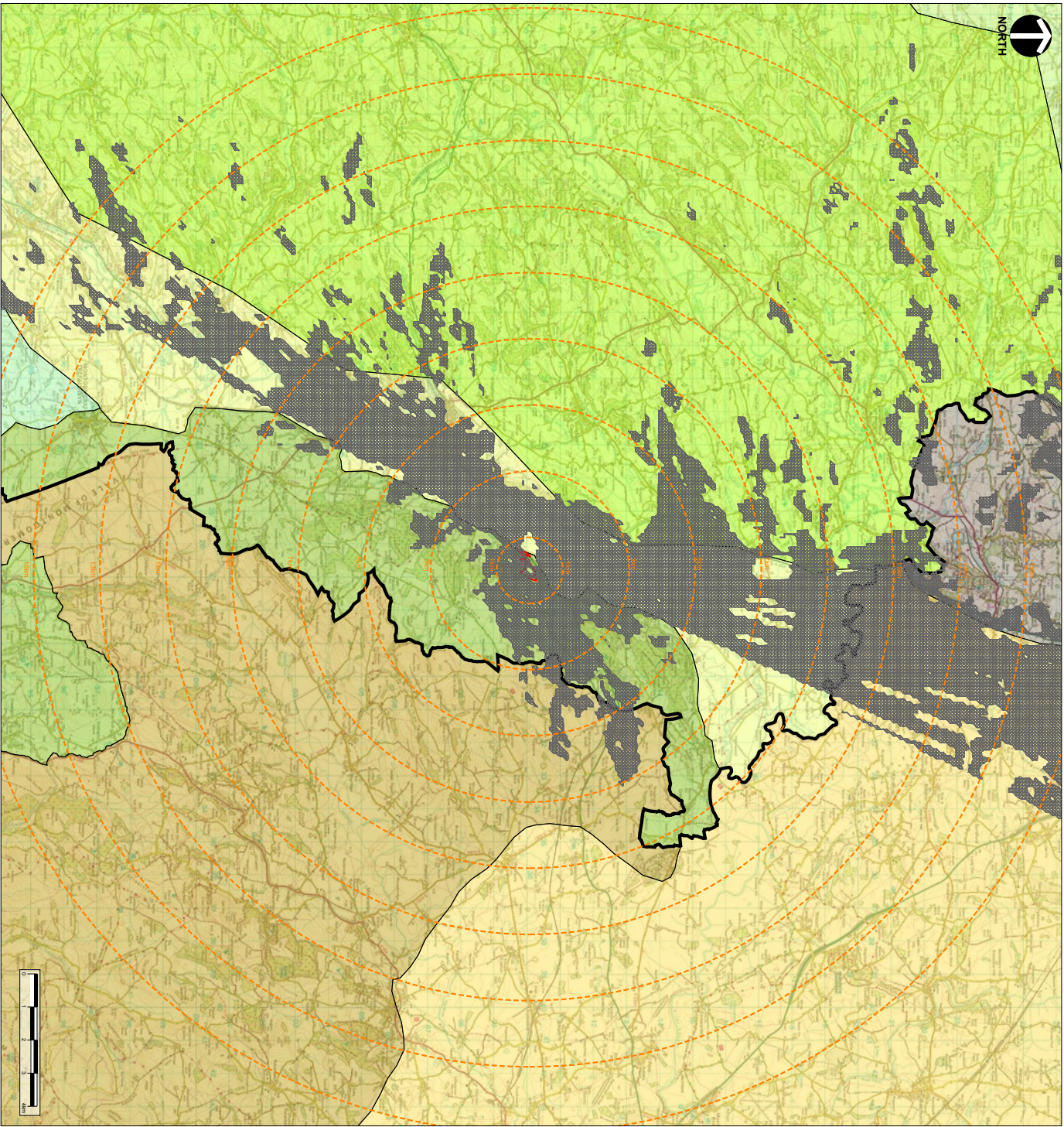
Figure L25	Viewpoint 6 Existing View (Single Photograph)
Figure L26	Viewpoint 6 Photomontage View (Single Photograph)
Figure L27	Viewpoint 7 Existing View (Panoramic View)
Figure L28	Viewpoint 7 Existing View (Single Photograph)
Figure L29	Viewpoint 7 Photomontage View (Single Photograph)
Figure L30	Viewpoint 8 Existing View (Panoramic View)
Figure L31	Viewpoint 8 Existing View (Single Photograph)
Figure L32	Viewpoint 8 Photomontage View (Single Photograph)
Figure L33	Viewpoint 9 Existing View (Panoramic View)
Figure L34	Viewpoint 9 Existing View (Single Photograph)
Figure L35	Viewpoint 9 Photomontage View (Single Photograph)
Figure L36	Viewpoint 10 Existing View (Panoramic View)
Figure L37	Viewpoint 10 Existing View (Single Photograph)
Figure L38	Viewpoint 10 Photomontage View (Single Photograph)
Figure L39	Viewpoint 11 Existing View (Panoramic View)
Figure L40	Viewpoint 11 Existing View (Single Photograph)
Figure L41	Viewpoint 11 Photomontage View (Single Photograph)
Figure L42	Viewpoint 12 Existing View (Panoramic View)
Figure L43	Viewpoint 12 Existing View (Single Photograph)
Figure L44	Viewpoint 12 Photomontage View (Single Photograph)
Figure L45	Viewpoint 13 Existing View (Panoramic View)
Figure L46	Viewpoint 13 Existing View (Single Photograph)
Figure L47	Viewpoint 13 Photomontage View (Single Photograph)
Figure L48	Viewpoint 14 Existing View (Panoramic View)
Figure L49	Viewpoint 14 Existing View (Single Photograph)
Figure L50	Viewpoint 14 Photomontage View (Single Photograph)
Figure L51	Viewpoint 15 Existing View (Panoramic View)
Figure L52	Viewpoint 15 Existing View (Single Photograph)
Figure L53	Viewpoint 15 Photomontage View (Single Photograph)
Figure L54	Viewpoint 16 Existing View (Panoramic View)
Figure L55	Viewpoint 16 Existing View (Single Photograph)



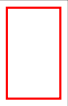
Figure L56	Viewpoint 16 Photomontage View (Single Photograph)
Figure L57	Viewpoint 17 Existing View (Panoramic View)
Figure L58	Viewpoint 17 Existing View (Single Photograph)
Figure L59	Viewpoint 17 Photomontage View (Single Photograph)
Figure L60	Viewpoint 18 Existing View (Panoramic View)
Figure L61	Viewpoint 18 Existing View (Single Photograph)
Figure L62	Viewpoint 18 Photomontage View (Single Photograph)
Figure L63	Viewpoint 19 Existing View (Panoramic View)
Figure L64	Viewpoint 19 Existing View (Single Photograph)
Figure L65	Viewpoint 19 Photomontage View (Single Photograph)
Figure L66	Viewpoint 20 Existing View (Panoramic View)
Figure L67	Viewpoint 20 Existing View (Single Photograph)
Figure L68	Viewpoint 20 Photomontage View (Single Photograph)
Figure L69	Viewpoint 21 Existing View (Panoramic View)
Figure L70	Viewpoint 21 Existing View (Single Photograph)
Figure L71	Viewpoint 21 Photomontage View (Single Photograph)
Figure L72	Viewpoint 22 Existing View (Panoramic View)
Figure L73	Viewpoint 22 Existing View (Single Photograph)
Figure L74	Viewpoint 22 Photomontage View (Single Photograph)
Figure L75	Viewpoint 23 Existing View (Panoramic View)
Figure L76	Viewpoint 23 Existing View (Single Photograph)
Figure L77	Viewpoint 23 Photomontage View (Single Photograph)
Figure L78	Viewpoint 24 Existing View (Panoramic View)
Figure L79	Viewpoint 24 Existing View (Single Photograph)
Figure L80	Viewpoint 24 Photomontage View (Single Photograph)
Figure L81	Viewpoint 25 Existing View (Panoramic View)
Figure L82	Viewpoint 25 Existing View (Single Photograph)
Figure L83	Viewpoint 25 Photomontage View (Single Photograph)
Figure L84	Viewpoint 26 Existing View (Panoramic View)
Figure L85	Viewpoint 26 Existing View (Single Photograph)
Figure L86	Viewpoint 26 Photomontage View (Single Photograph)



Figure L87	Viewpoint 27 Existing View (Panoramic View)
Figure L88	Viewpoint 27 Existing View (Single Photograph)
Figure L89	Viewpoint 27 Photomontage View (Single Photograph)
Figure L90	Viewpoint 28 Existing View (Panoramic View)
Figure L91	Viewpoint 28 Existing View (Single Photograph)
Figure L92	Viewpoint 28 Photomontage View (Single Photograph)
Figure L93	Viewpoint 29 Existing View (Panoramic View)
Figure L94	Viewpoint 29 Existing View (Single Photograph)
Figure L95	Viewpoint 29 Photomontage View (Single Photograph)
Figure L96	Viewpoint 30 Existing View (Panoramic View)
Figure L97	Viewpoint 30 Existing View (Single Photograph)
Figure L98	Viewpoint 30 Photomontage View (Single Photograph)
Figure L99	Viewpoint 31 Existing View (Panoramic View)
Figure L100	Viewpoint 31 Existing View (Single Photograph)
Figure L101	Viewpoint 31 Photomontage View (Single Photograph)
Figure L102	Viewpoint 32 Existing View (Panoramic View)
Figure L103	Viewpoint 32 Existing View (Single Photograph)
Figure L104	Viewpoint 32 Photomontage View (Single Photograph)
Figure L105	Viewpoint 33 Existing View (Panoramic View)
Figure L106	Viewpoint 33 Existing View (Single Photograph)
Figure L107	Viewpoint 33 Photomontage View (Single Photograph)
Figure L108	Viewpoint 34 Existing View (Single Photograph)
Figure L109	Viewpoint 35 Existing View (Single Photograph)



Key



Planning Application Boundary (the Application Site)



Distance markers from the proposed stack

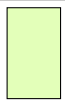


Hatched areas denote Zone of Theoretical Visibility (ZTV) of stack and roof level of the turbine building

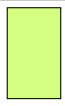


Wales-England border

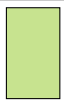
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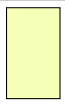
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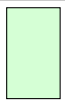
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Shropshire Hills (outliers) NLCA No. 18

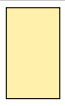


Severn Valley NLCA No. 19

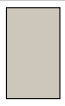


Radnorshire Hills NLCA No. 20

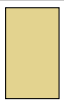
National Character Areas (NCA) (England)



Shropshire, Cheshire and Staffordshire Plain NCA No. 61



Oswestry Uplands NCA No. 63



Shropshire Hills NCA No. 65

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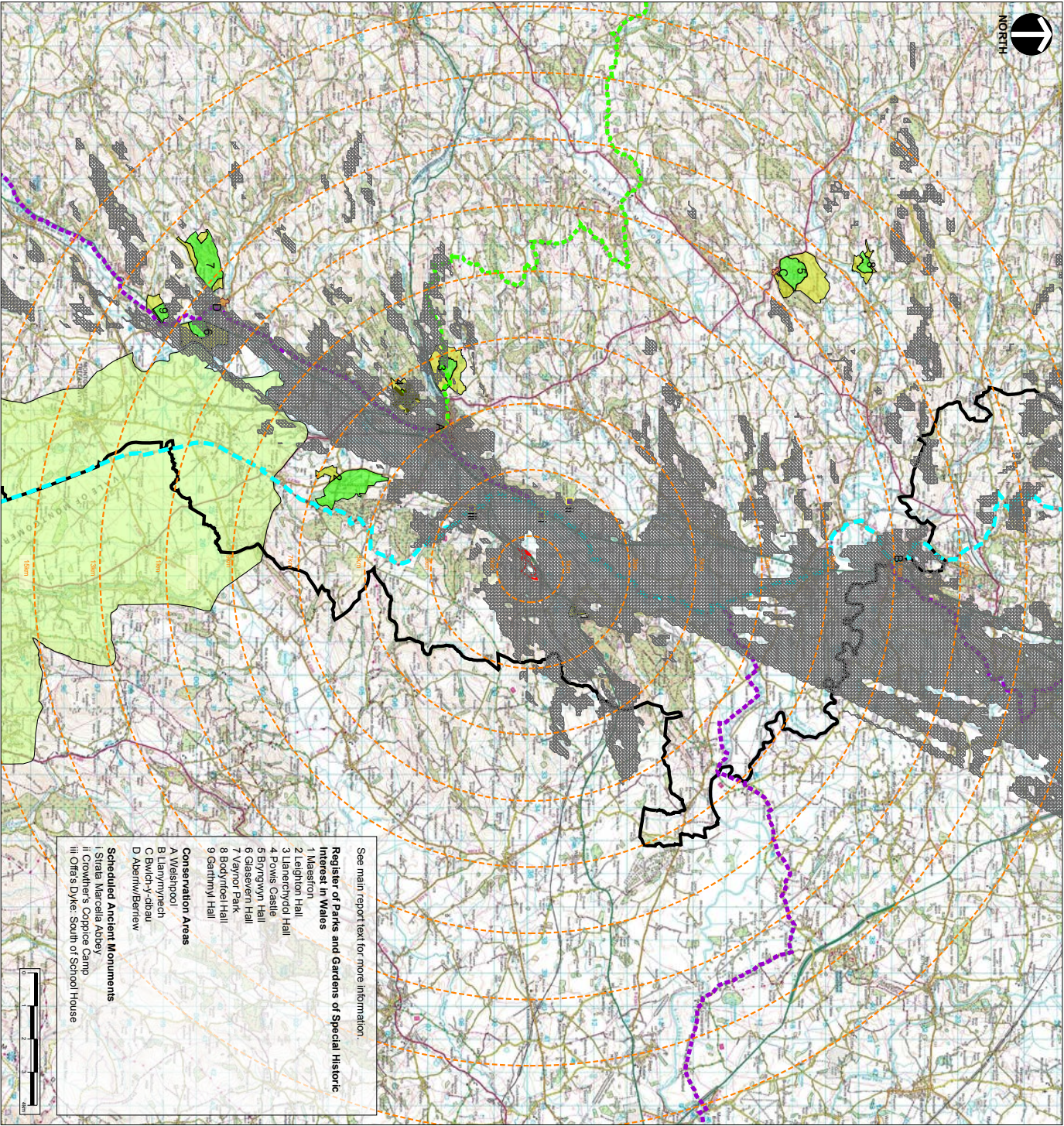
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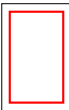
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Landscape and Visual Impact Assessment
Site Location and Landscape Character Classification (National Level)

Title:

CD Ref:	Version:	Drawn by:	Scale @A3:	Origin Date:
BT1180-D8V2	2	SC	Plan 1:120,000	August 2020



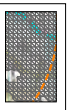
Key



Planning Application Boundary (the Application Site)



Distance markers from the proposed stack



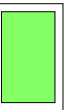
Hatched areas denote Zone of Theoretical Visibility (ZTV) of stack and roof level of the turbine building



Wales-England border



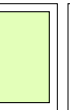
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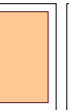
Register of Parks and Gardens of Special Historic Interest in Wales (CADW)



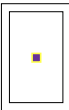
Register of Parks and Gardens of Special Historic Interest in Wales Essential Settings (CADW)



The Vale of Montgomery Historic Landscape No.35



Conservation Areas



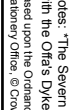
Scheduled Monuments (CADW) (shown within c.2.5km from the Site centre)



Offa's Dyke Path National Trail



Glynwŷr's Way National Trail



Severn Way (Long Distance Footpath)*

Notes: *The Severn Way (Long Distance Footpath) runs currently in places with the Offa's Dyke Path National Trail
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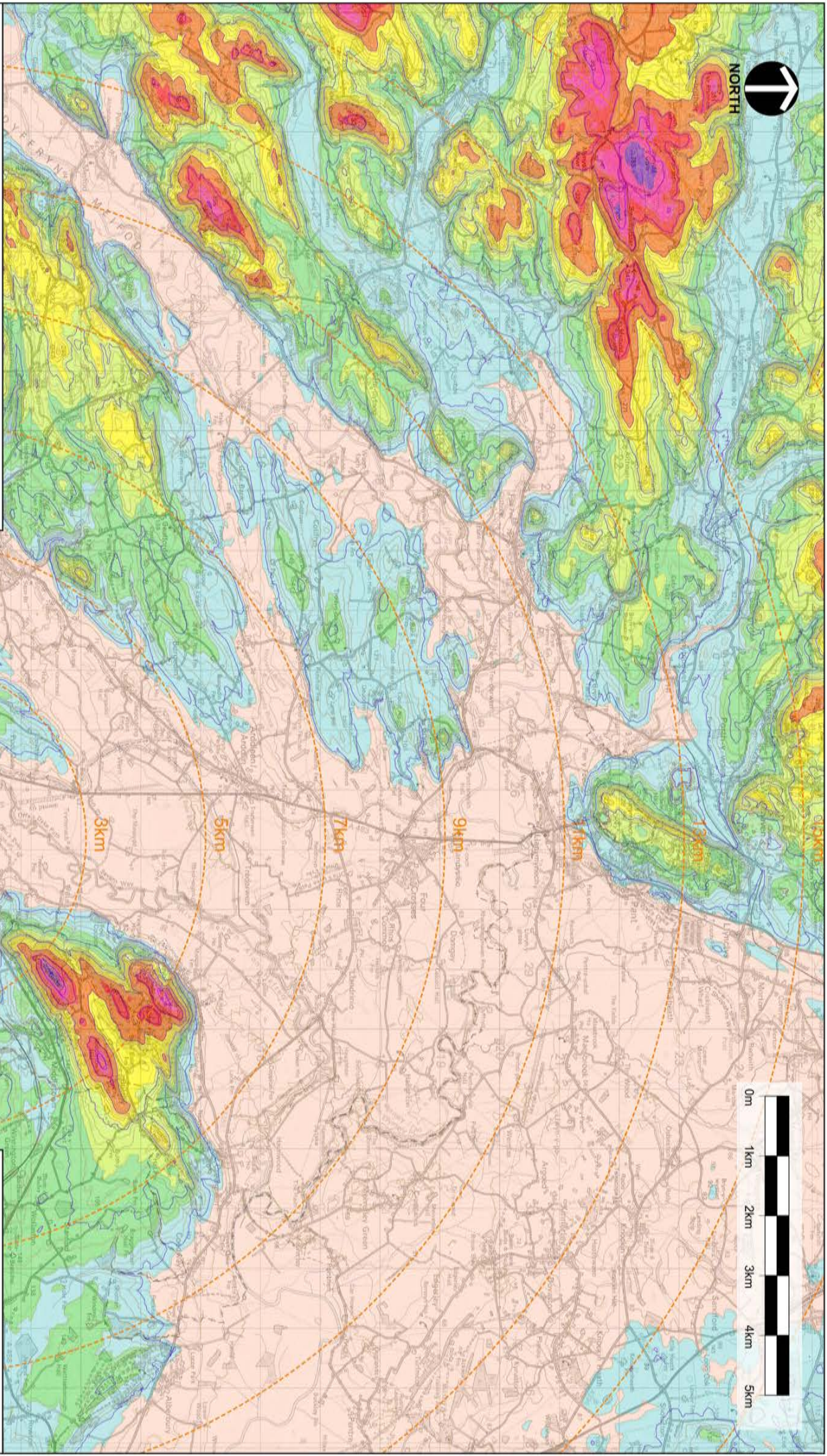
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Project: Buttington Quarry Proposed Energy Recovery Facility (ERF)
Landscape and Visual Impact Assessment

Title: Landscape Designations

CAD Ref:	Version:	Drawn by:	Scale @A3:	Origin Date:
BT11180-D6v2	2	SC	Plan 1:120,000	August 2020



Key:

The Planning Application boundary, (the Application Site)

Distance bands from site centre

10metre and 50metre contours

- 50-90m topographic range
- 90-130m topographic range
- 130-170m topographic range
- 170-210m topographic range
- 210-250m topographic range
- 250-290m topographic range
- 290-330m topographic range
- 330-370m topographic range
- 370-410m topographic range

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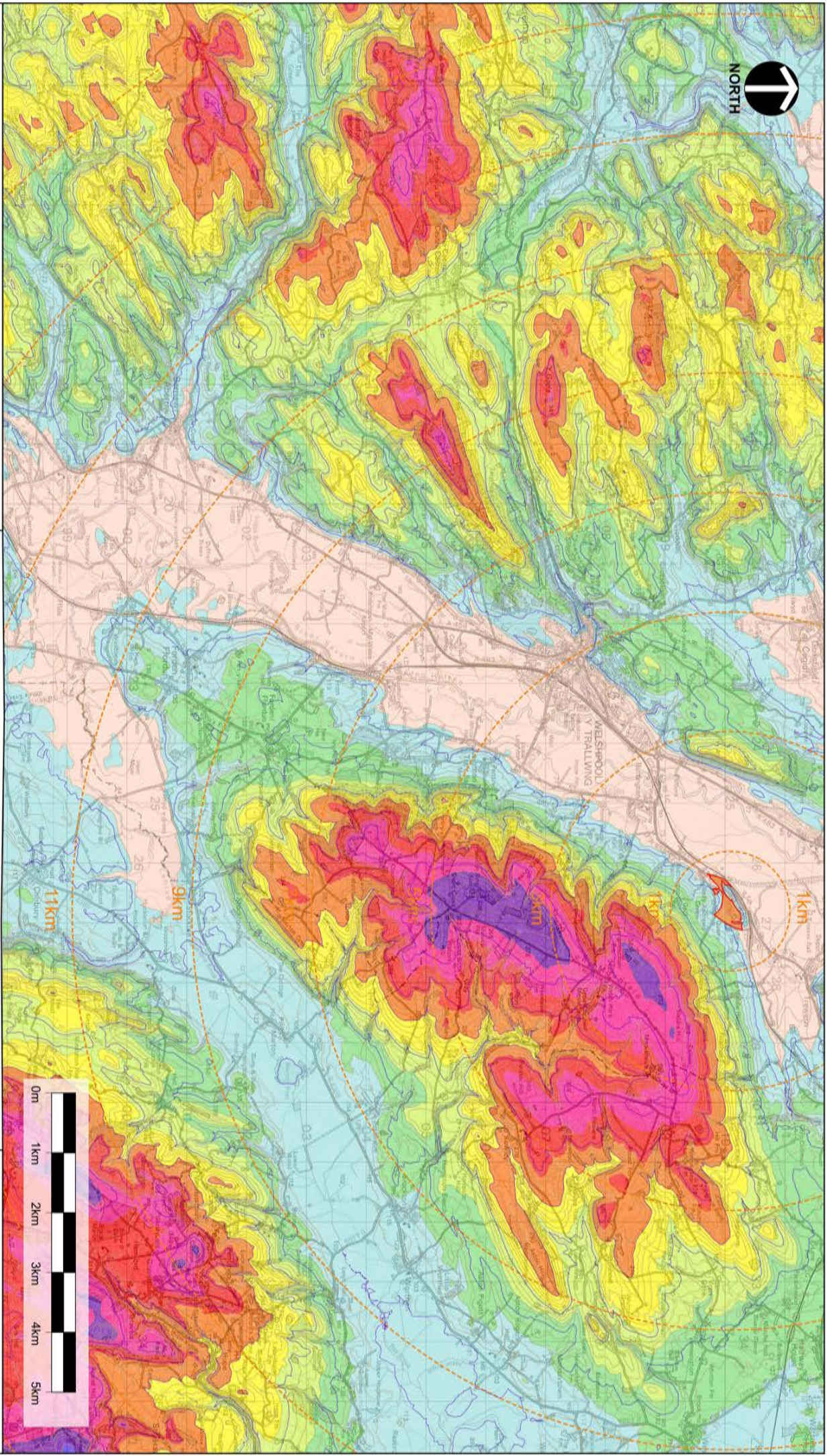


Project:
BUTTINGTON QUARRY
Proposed Energy Recovery Facility (ERF)
The
Topographic Analysis (Northern area)

bright & associates

Figure L4
(Sheet 1)

Doc Ref	Version	Drawn By	Scale	Rev	Date
BT1180-DS-2	2	RB		A3	July 2020
					Page 1 of 1000



Key:

The Planning Application boundary, (the Application Site)

Distance bands from site centre

10metre and 50metre contours

50-90m topographic range
 90-130m topographic range
 130-170m topographic range
 170-210m topographic range
 210-250m topographic range
 250-290m topographic range
 290-330m topographic range
 330-370m topographic range
 370-410m topographic range
 410-450m topographic range

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Date:



Project: BUTTINGTON QUARRY

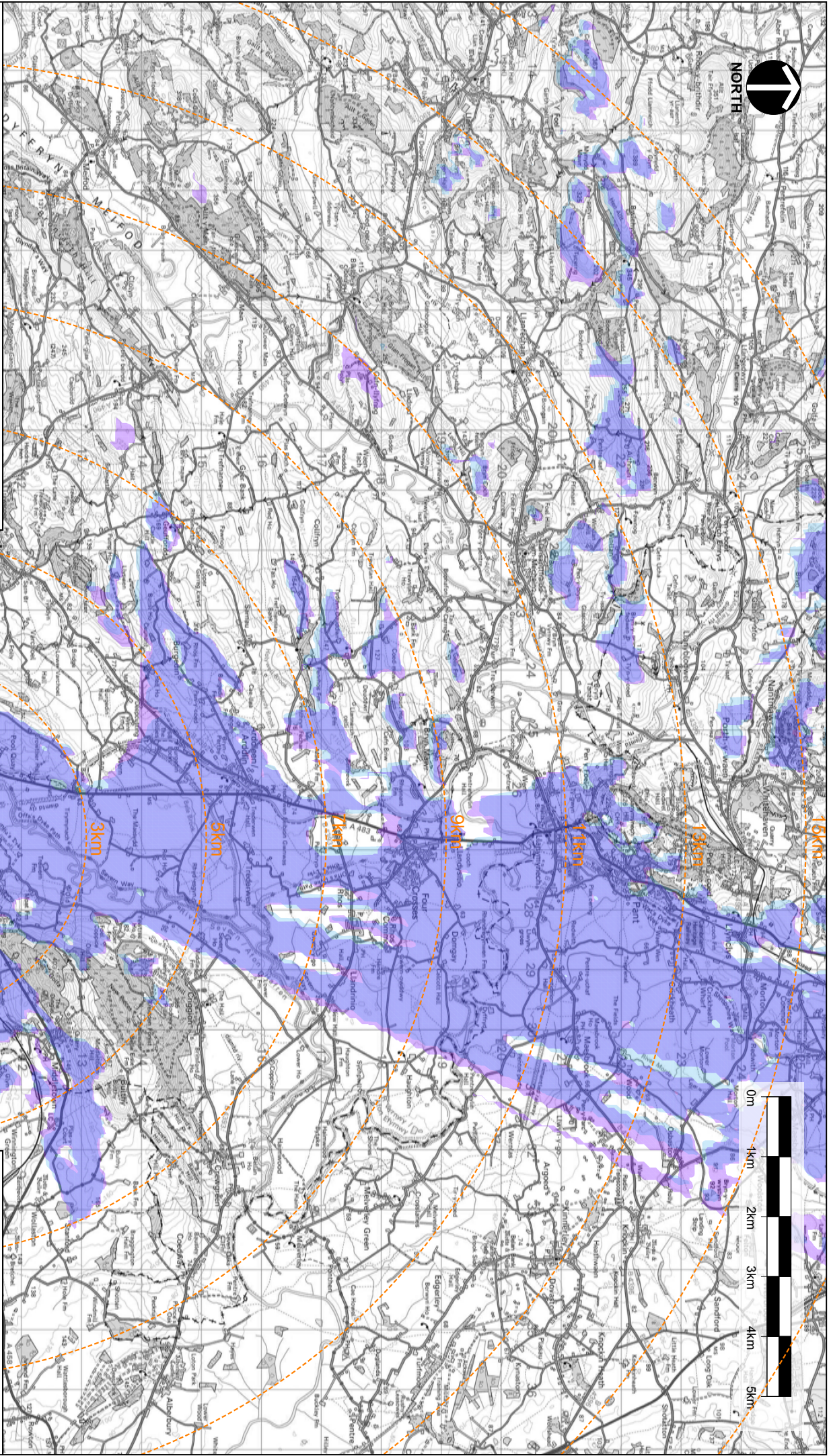
Proposed Energy Recovery Facility (ERF)

Topographic Analysis (Southern area)




Figure L4 (Sheet 2)


Doc Ref	Version	Drawn By	Scale	Rev	Date
BT1180-DS-2	2	RB	1:50,000		July 2020



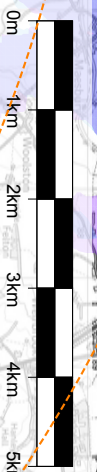
Key:


 The Planning Application boundary, (the Application Site)

 Distance bands from site centre

 Area of mapped ZTV for the ERF stack

 Area of mapped ZTV for the upper roof section of the ERF combined with stack ZTV






BROAD
ENERGY

Project:
BUTTINGTON QUARRY
Proposed Energy Recovery Facility (ERF)

The
Zone of Theoretical Visibility (ZTV)
(Northern area)



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CONSULTANTS

Client:
BT1180-DAV2

Drawn by:
2

Checked by:
RB

Scale:
Plan 1:50,000

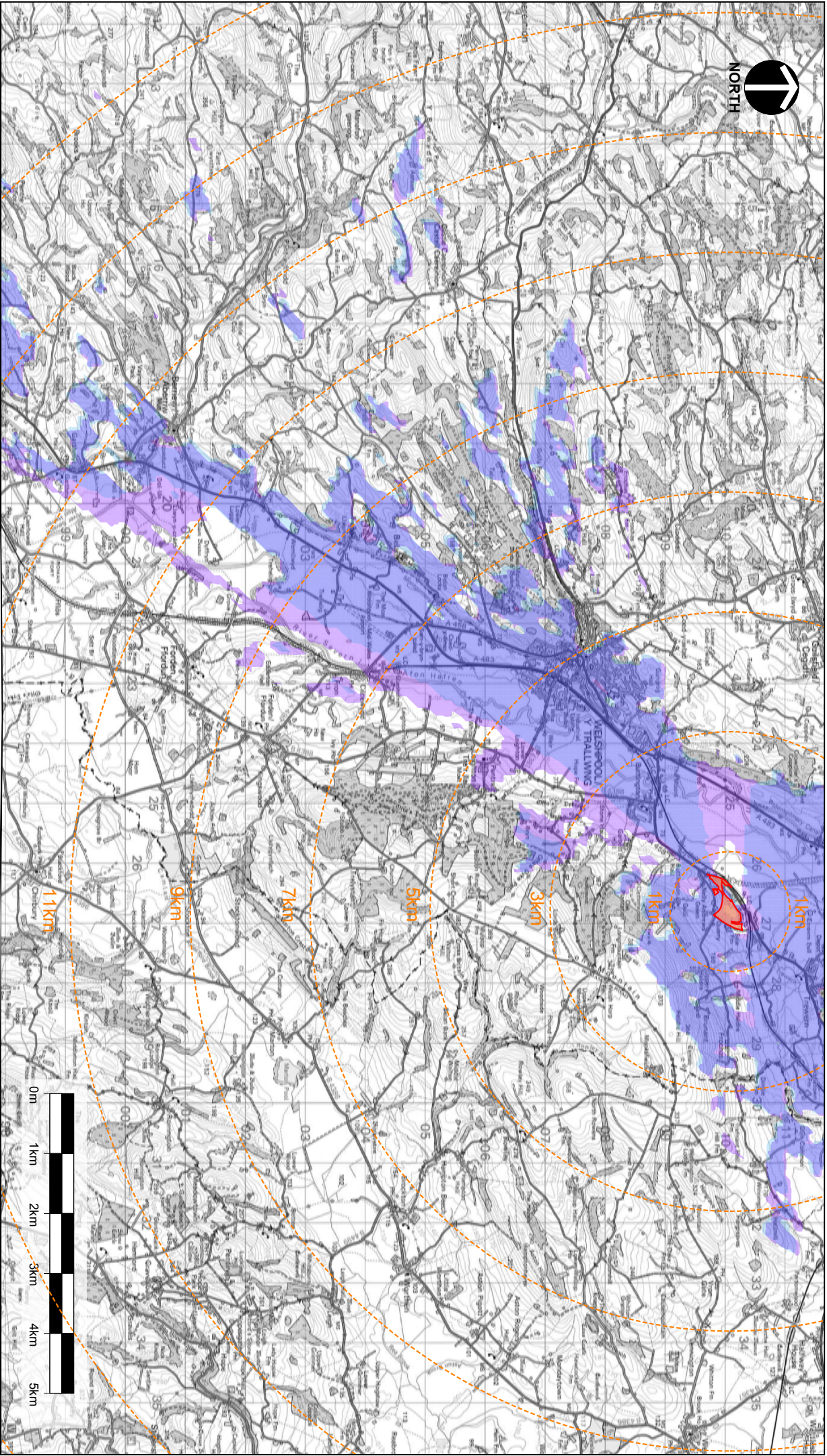
Sheet:
A3

Revision:
1

Date:
July 2020


Figure L5


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Key:

 The Planning Application boundary, (the Application Site)

 Distance bands from site centre

 Area of mapped ZTV for the ERF stack

 Area of mapped ZTV for the upper roof section of the ERF combined with stack ZTV

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Client:

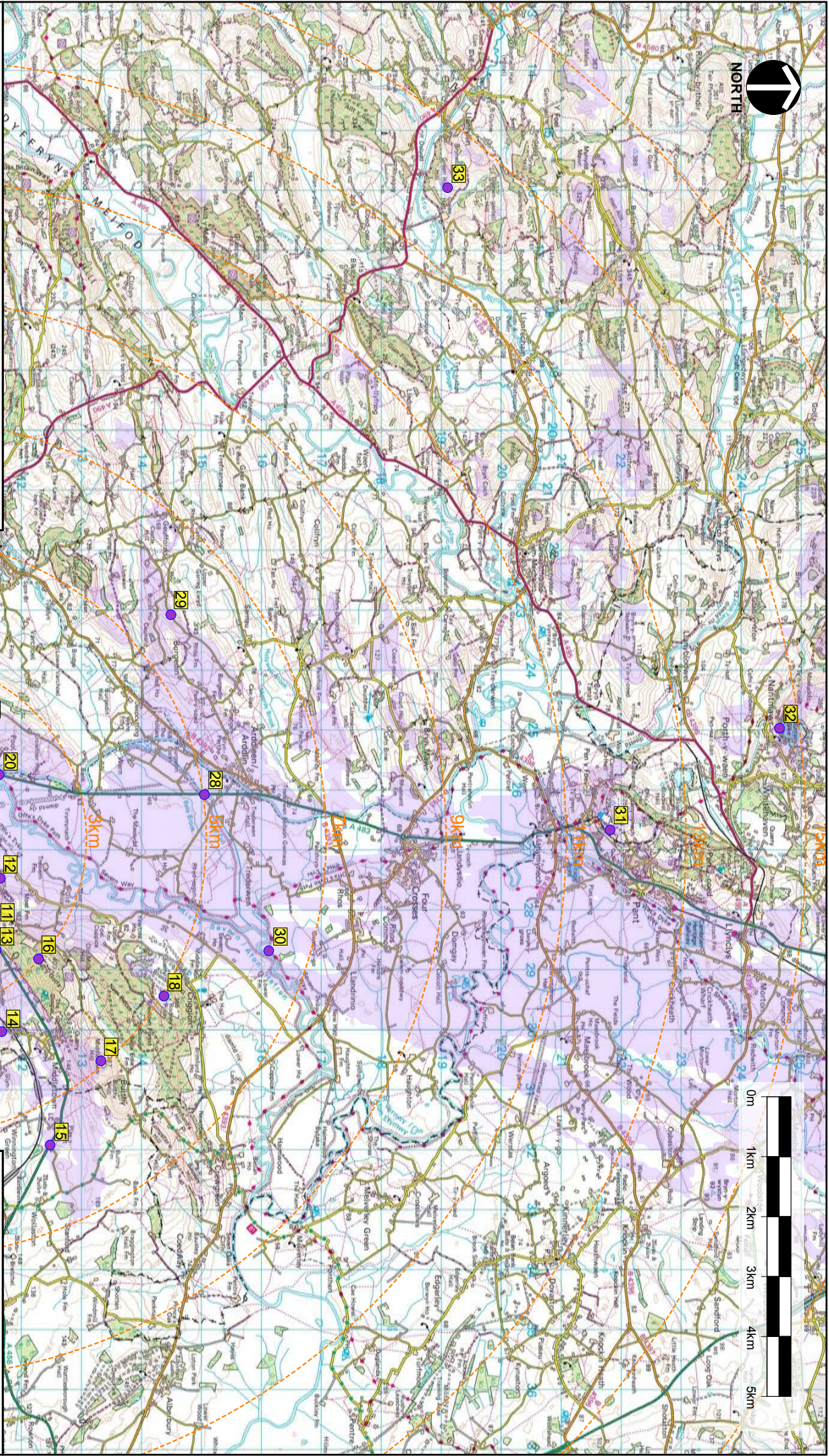


Project: **BUTTINGTON QUARRY**
Proposed Energy Recovery Facility (ERF)

Title: **Zone of Theoretical Visibility (ZTV)**
(Southern area)



Figure L6



Key:


The Planning Application boundary, (the Application Site)

Distance bands from site centre

Area of mapped ZTV for the ERF stack

29 Photograph location and number

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BROAD
ENERGY

Project:
BUTTINGTON QUARRY

Proposed Energy Recovery Facility (ERF)

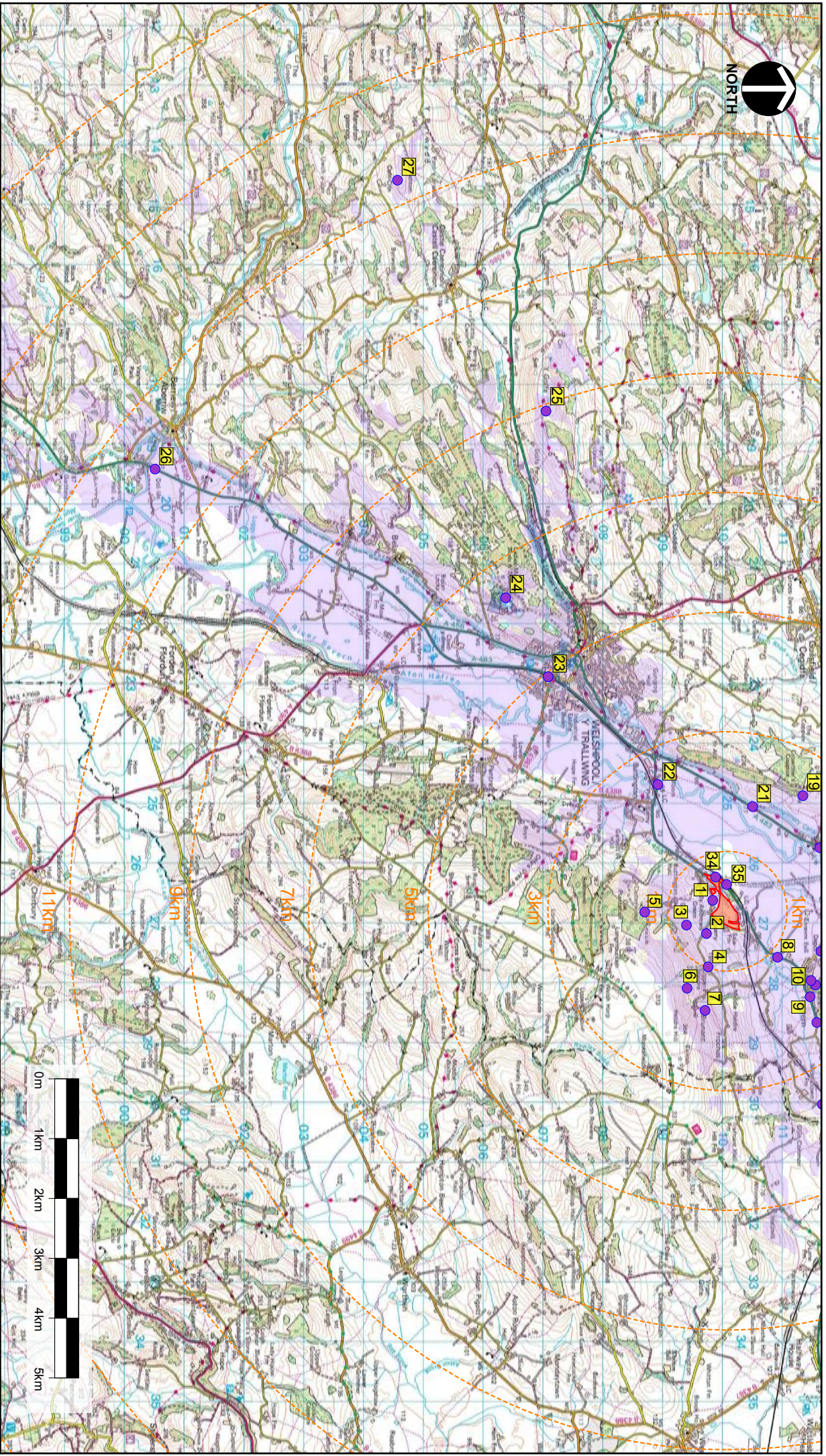
The
Photograph Location Plan
(Northern area)



bright & associates
CONSULTANTS


Client	Drawn	Checked	Scale	Date
BT1180-DV2	2	RB	1:50,000	July 2020


Figure L7




Key:

 The Planning Application boundary, (the Application Site)

 Distance bands from site centre

 Area of mapped ZTV for the ERF stack

 Photograph location and number

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Client:



Project: **BUTTINGTON QUARRY**
Proposed Energy Recovery Facility (ERF)

Title: **Photograph Location Plan**
(Southern area)



Figure L8

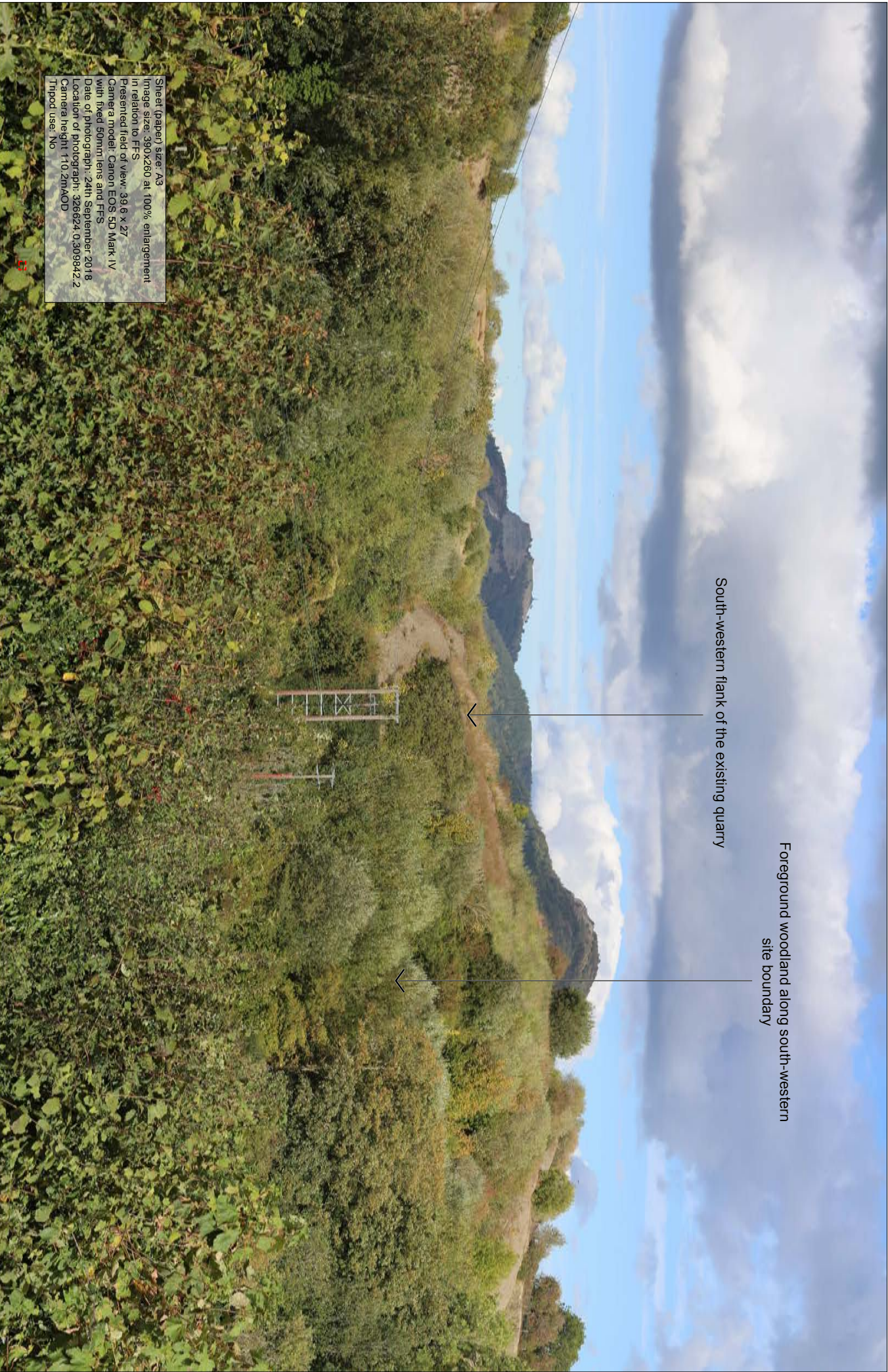
Client Ref	Version	Drawn By	Scale	File Ref	Printed Date
BT1180-D3v2	2	RB	Scale	A3	July 2020



Viewpoint 1 : From Sale Lane immediately west of Whitehouse Farm

300 metres to the south west from the ERF
Photograph location is a gateway along Sale Lane at a high point on the road and immediately west of Whitehouse Farm

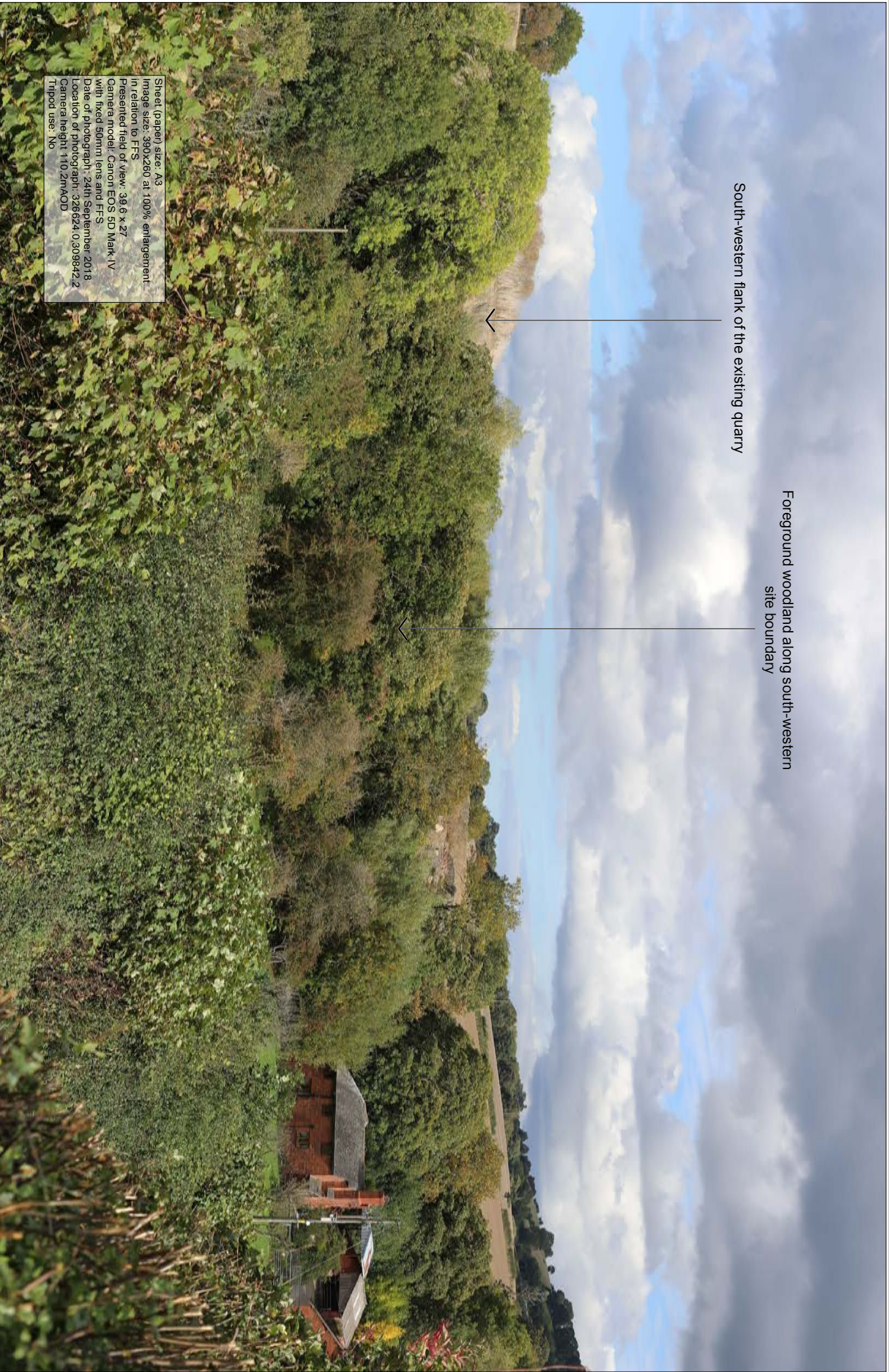
Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



Foreground woodland along south-western site boundary

South-western flank of the existing quarry

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV with fixed 50mm lens and FFS
Date of photograph: 24th September 2018
Location of photograph: 326624, 0.309842.2
Camera height: 110.2m AOD
Tripod use: No



South-western flank of the existing quarry

Foreground woodland along south-western
site boundary

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 24th September 2018
Location of photograph: 328624.0, 309842.2
Camera height: 110.2m AOD
Tripod use: No



Upper level/outline of proposed screen bund
alongside the access road to Laydown Area 4

Upper level/outline of residual landform retained
immediately south and south-west of the ERF

Upper level/outline of proposed screen bund to the
south-west of Laydown Area 4

Wooded screen bund along Sale Lane

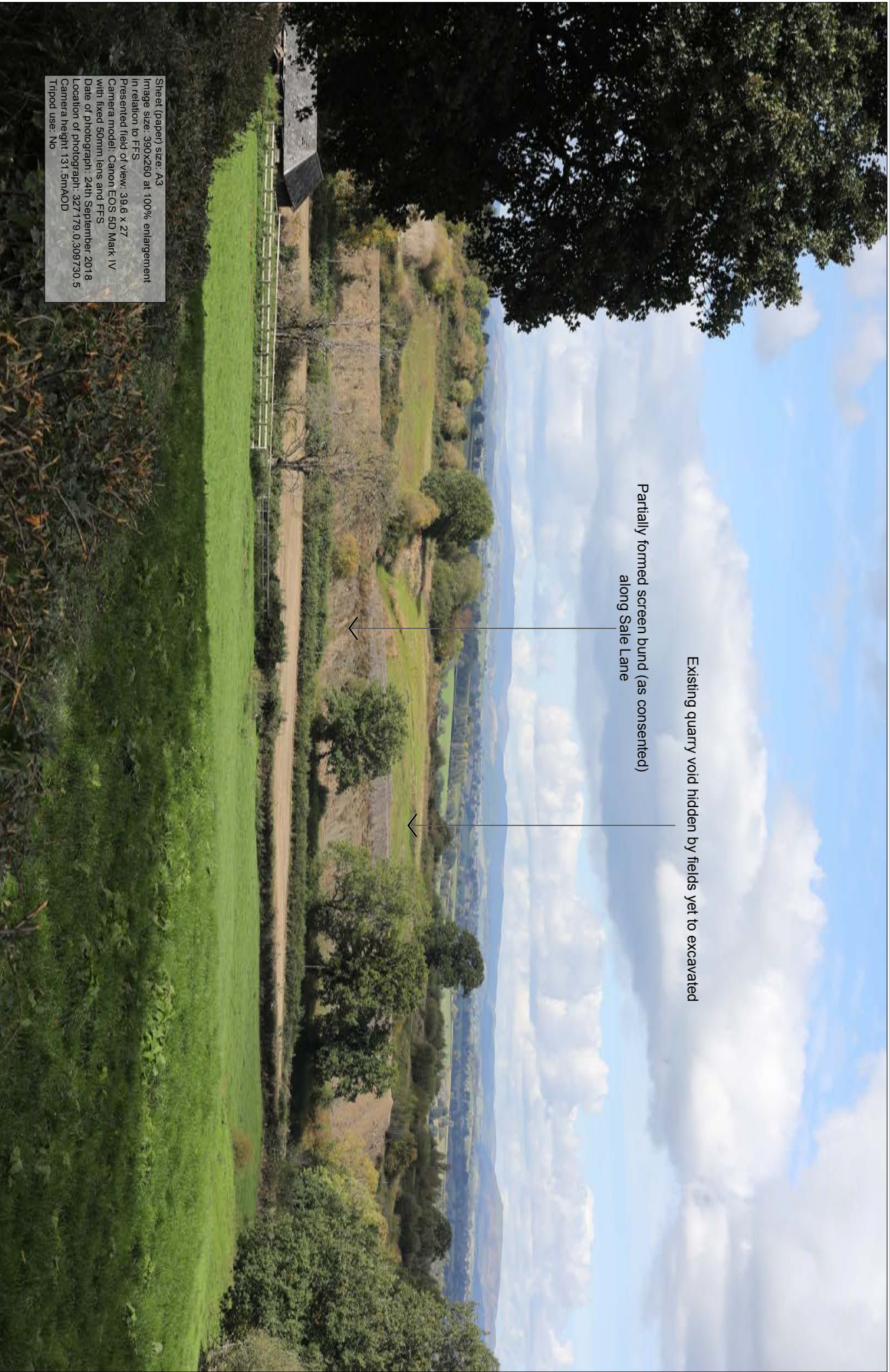




Viewpoint 2: From Heldre Lane

510 metres to the south east from the ERF
Photograph location is a wide gateway and low hedgerow
allowing comparable views from the lane

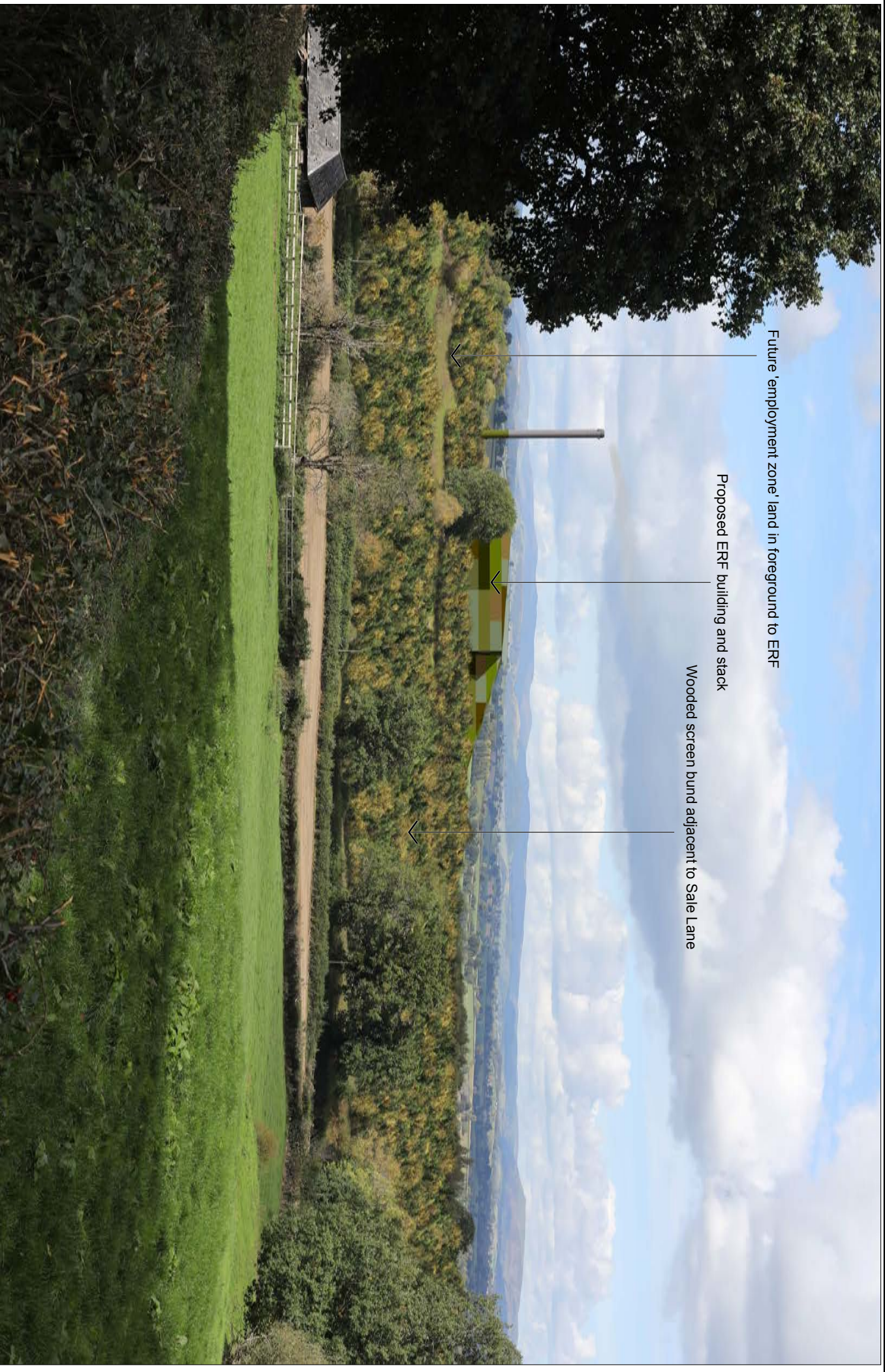
Panoramic photographs are presented for illustration and
general reference to the accompanying LV/A text. They are not
a replacement for observation on site. Detailed single frame
photographs accompany the panoramic photographs.



Existing quarry void hidden by fields yet to excavated

Partially formed screen bund (as consented)
along Sale Lane

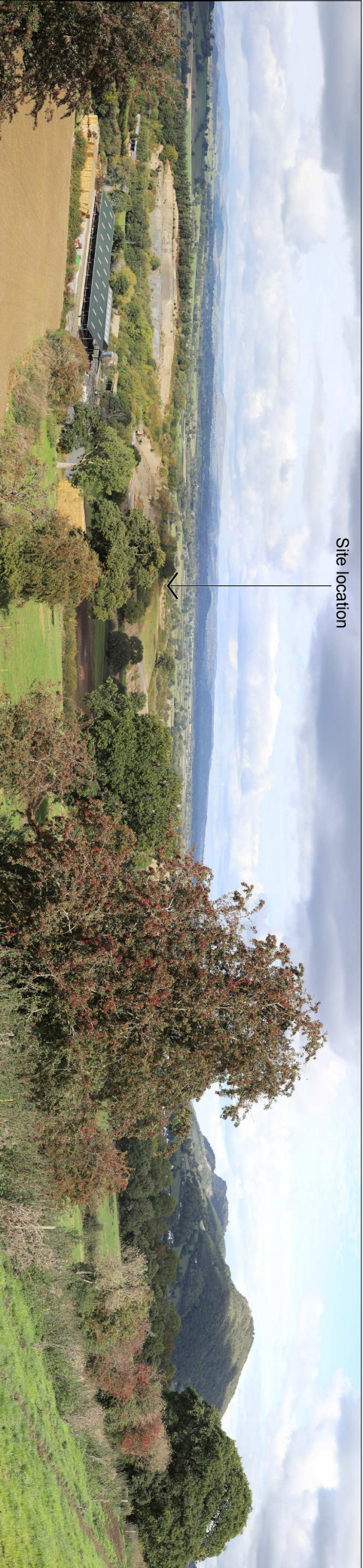
Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 24th September 2018
Location of photograph: 327179 0.309730.5
Camera height 131.5mAOD
Tripod use: No



Future 'employment zone' land in foreground to ERF

Proposed ERF building and stack

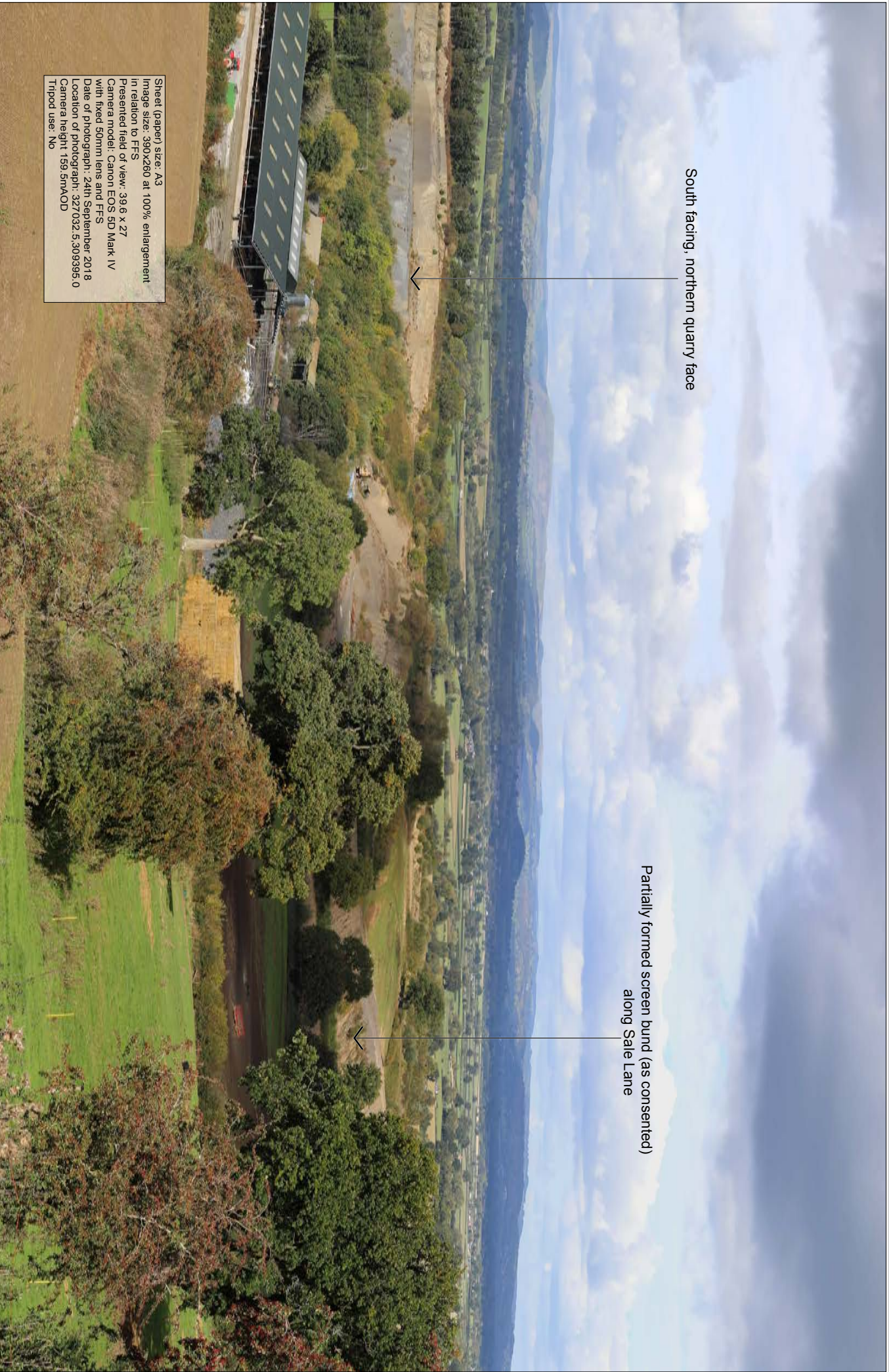
Wooded screen bund adjacent to Sale Lane



Viewpoint 3: From public footpath immediately south of Nelly Andrews' Green

7.10 metres to the south from the ERF. Photograph location is along the footpath between Heldre Lane and Geill

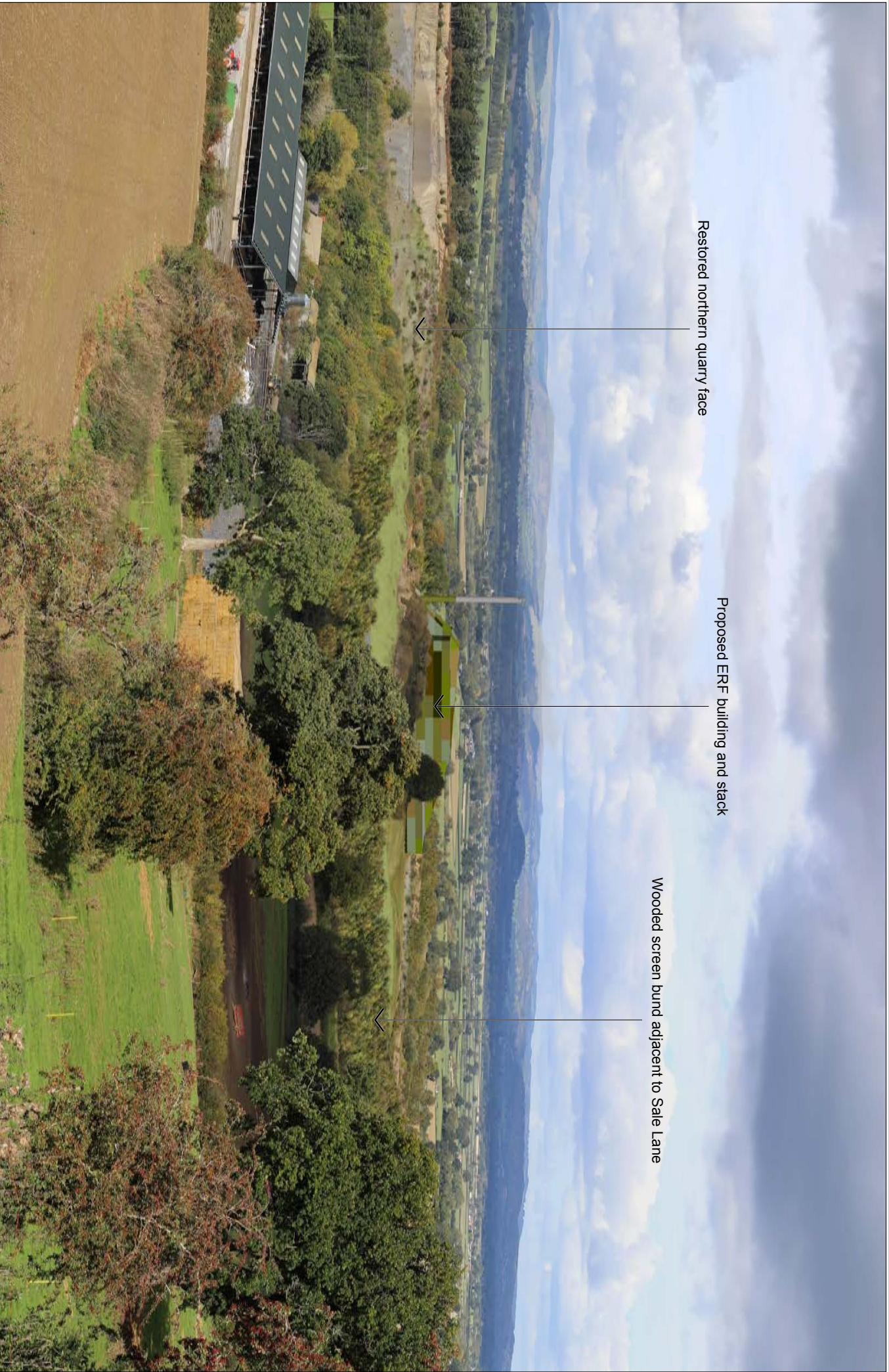
Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 24th September 2018
Location of photograph: 327032.5, 309395.0
Camera height 159.5m AOD
Tripod use: No

South facing, northern quarry face

Partially formed screen bund (as consented)
along Sale Lane



Restored northern quarry face

Proposed ERF building and stack

Wooded screen bund adjacent to Sale Lane



Viewpoint 4: From Helder Lane at Upper Helder

990 metres to the south east from the ERF. Photograph location is a wide gateway to the west of a clump of woodland that follows the brook and separates it from Upper Helder Farm

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 224th September 2018
Location of photograph: 327770.07,309759.0
Camera height 168.0m AOD
Tripod use: No



Proposed ERF building and stack

Restored northern quarry face

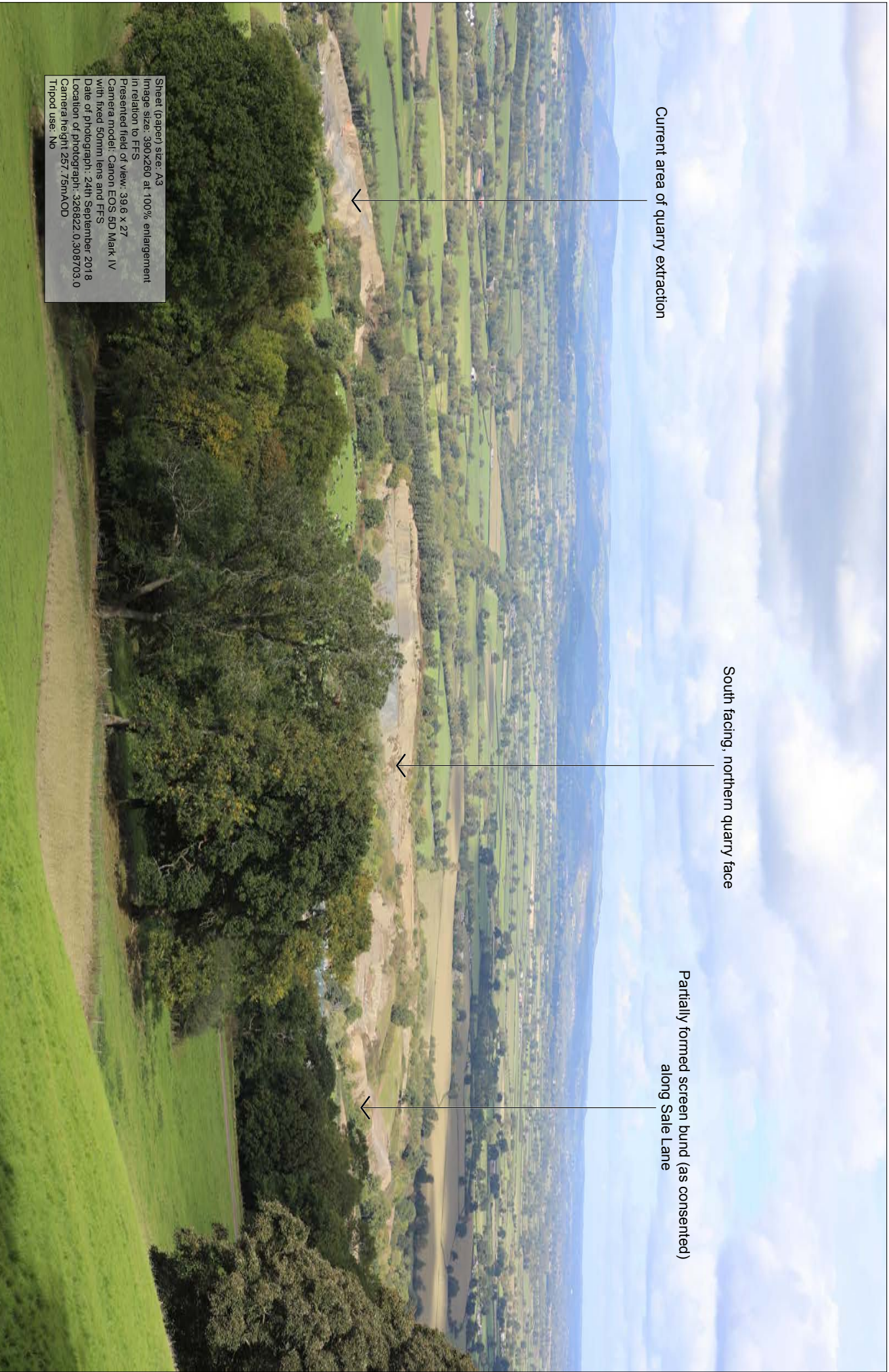
Wooded screen bund adjacent to Sale Lane



Viewpoint 5: From public footpath south of Buttington leading towards the Longmountain

1.3km to the south from the ERF. Photograph location is from the footpath at a vantage point on the northern edge of Oak Plantation

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



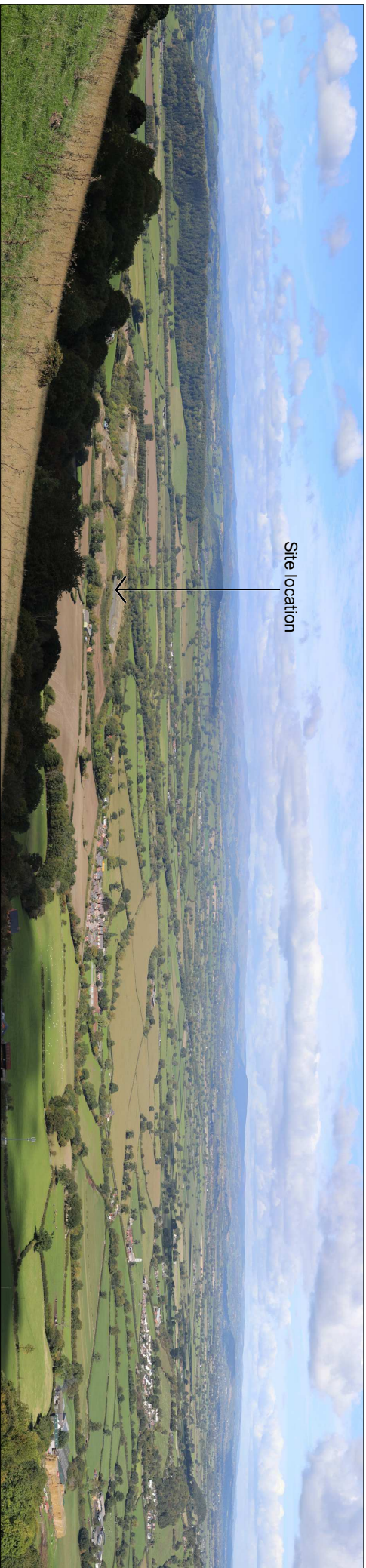
Current area of quarry extraction

South facing, northern quarry face

Partially formed screen bund (as consented)
along Sale Lane

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 24th September 2018
Location of photograph: 326822, 0.308703, 0
Camera height 257.75mAOD
Tripod use: No

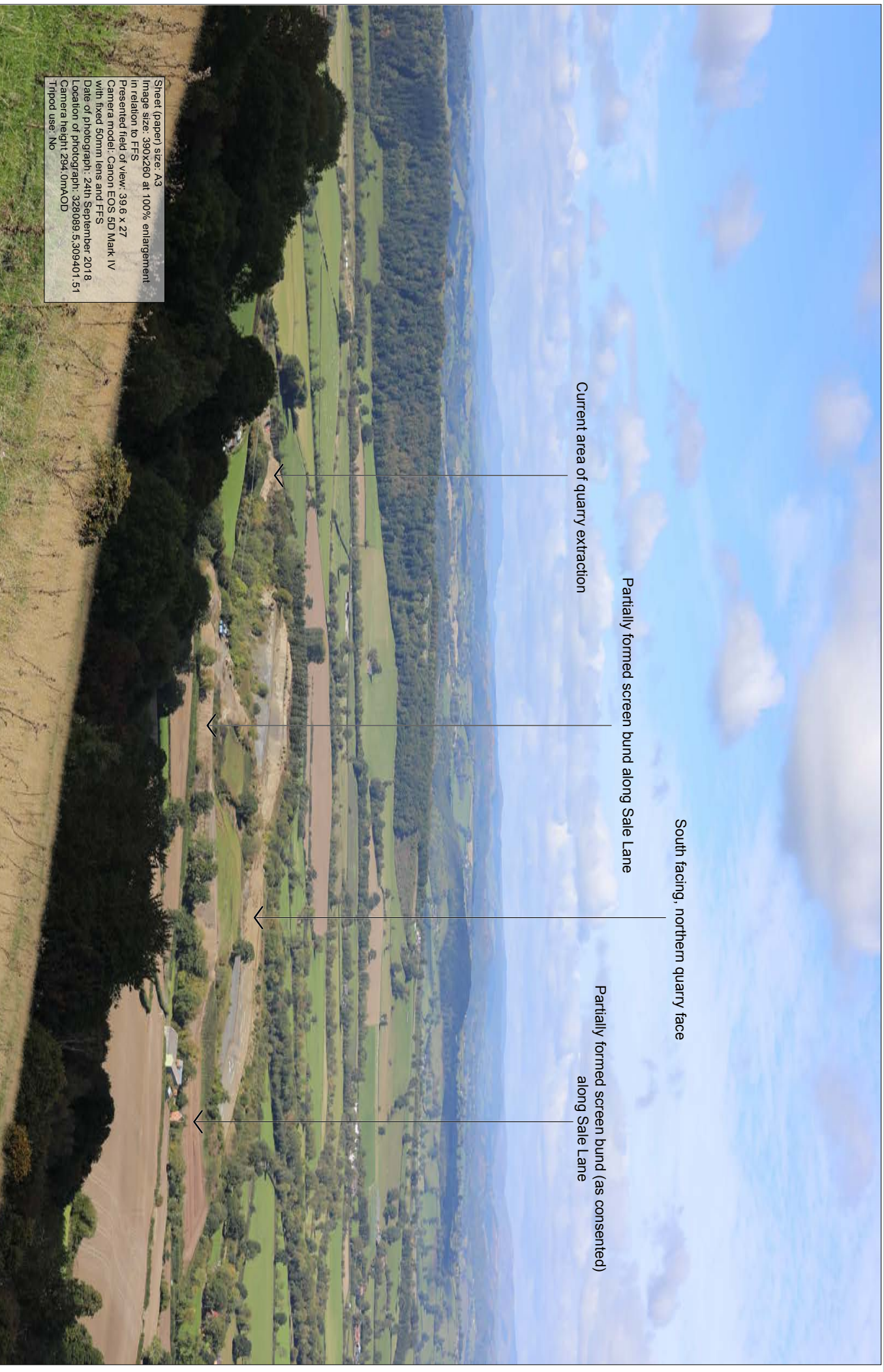




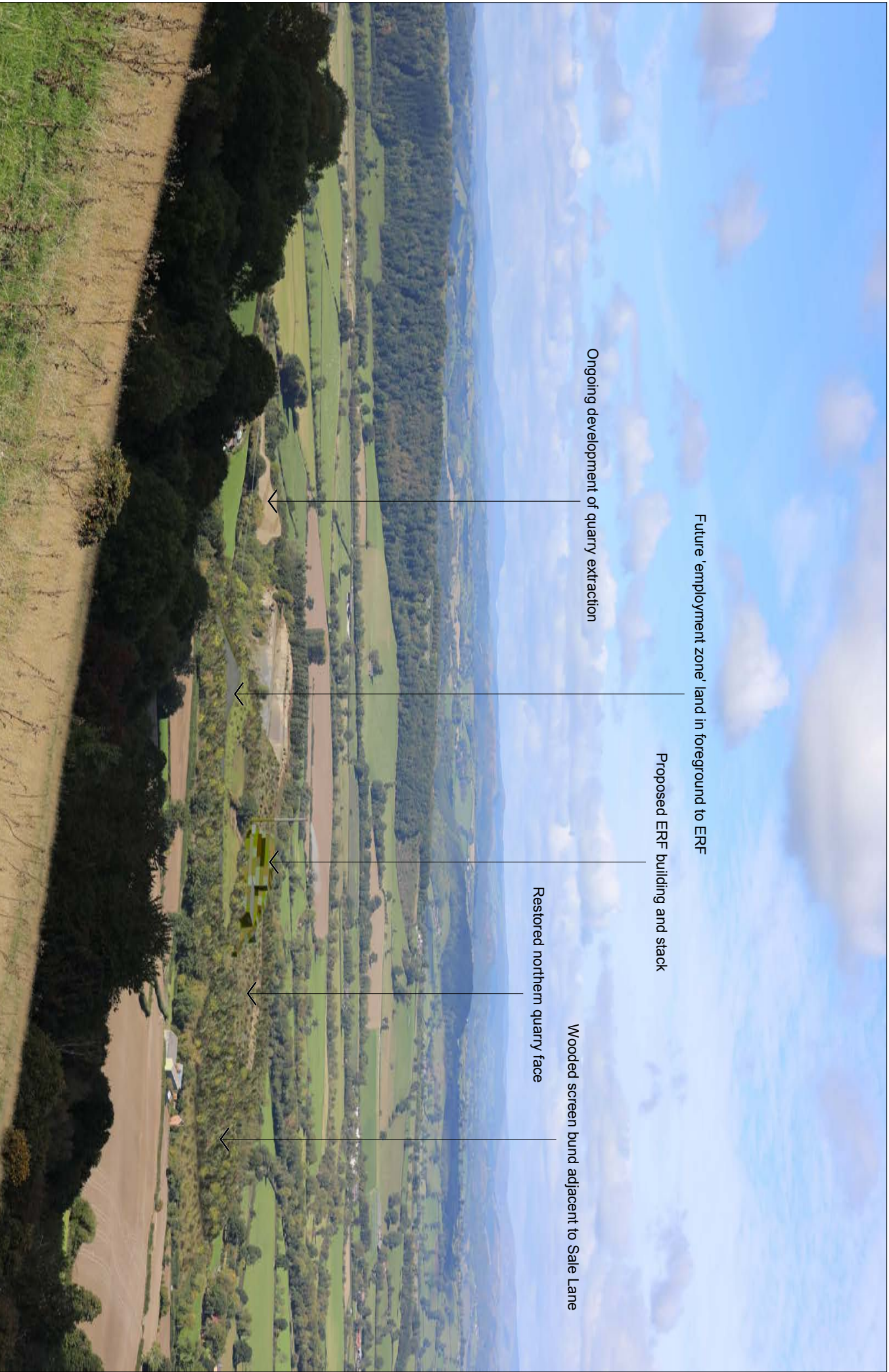
Viewpoint 6: From footpath on Hieldre Hill

1.4km to the south east from the ERF. Photograph location is from the open hillside and route of footpath on Hieldre Hill (access land) and leading to the Longmountain

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 24th September 2018
Location of photograph: 328089.5, 309401.51
Camera height 294.0mAOD
Tripod use: No



Future 'employment zone' land in foreground to ERF

Proposed ERF building and stack

Ongoing development of quarry extraction

Restored northern quarry face

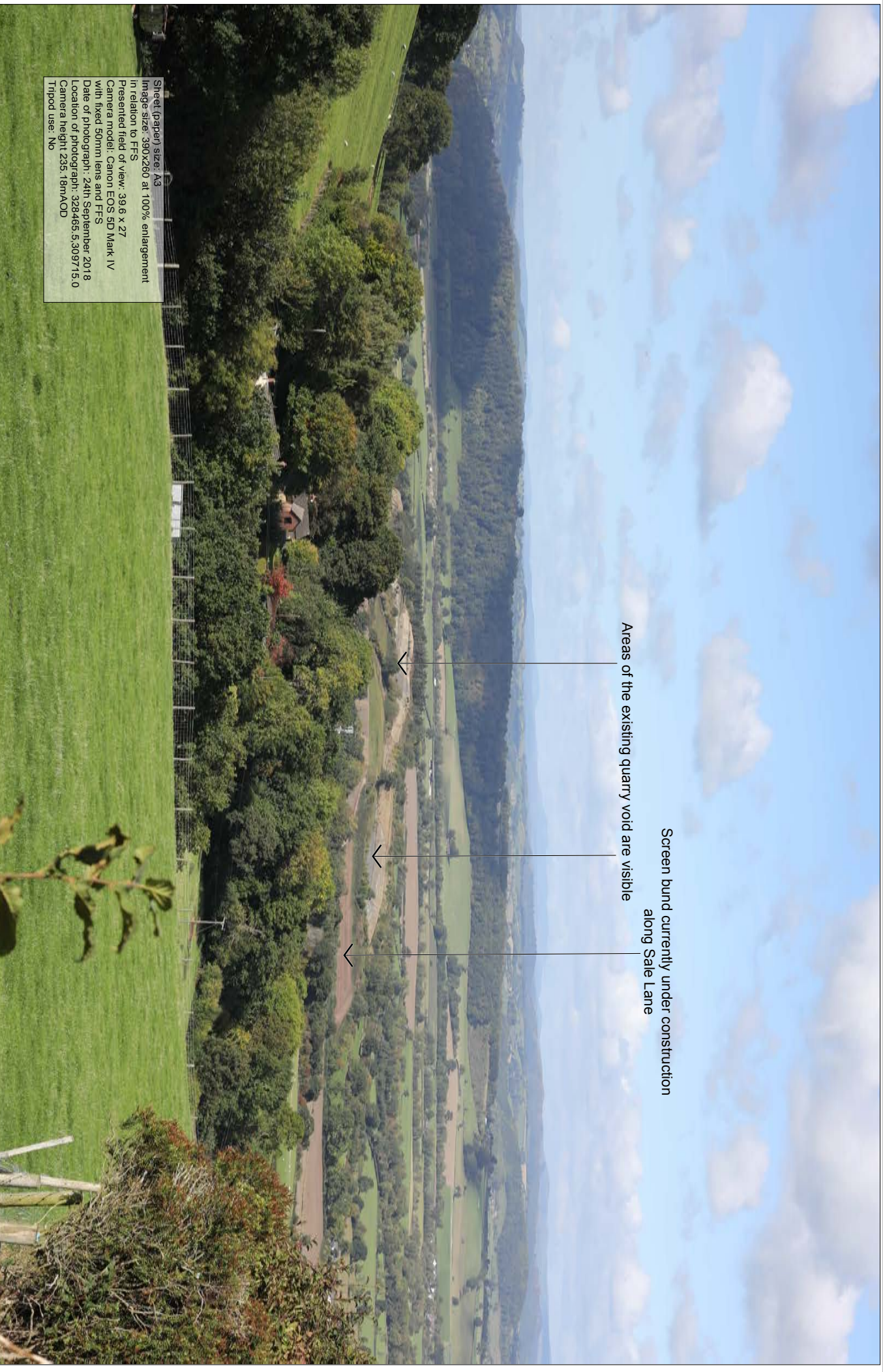
Wooded screen bund adjacent to Sale Lane



Viewpoint 7: From Brunant, immediately south of Pop Ceiniog

1.56km to the south east from the ERF
Photograph location is from a trackway used as a public footpath and immediately south of Peny-Bank. Primary views are gained from the path and residential properties that are grouped on the north facing hill side

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



Screen bund currently under construction
along Sale Lane

Areas of the existing quarry void are visible

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 24th September 2018
Location of photograph: 328465, 5, 309715.0
Camera height 235, 18mAOD
Tripod use: No



Wooded screen bund adjacent to Sale Lane

Proposed ERF building and stack



Viewpoint 8: From A458 at Cefn

1.1km to the north east from the ERF. Photograph location is from the junction with Heldre Lane

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



Screen bund currently under construction
along Sale Lane

North eastern edge of the quarry with the
extraction area hidden by foreground
landform

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 13th September 2018
Location of photograph: 327576, 19,310926, 8
Camera height 74.0mAO
Tripod use: No



Wooded screen bund adjacent to Sale Lane

Proposed ERF building and stack



Viewpoint 9: From A458 at Trewern

1.3km to the north east from the ERF. Photograph location is from the lane junction with Garreg Bank and to the east of Maestron Hall and gardens

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



Screen bund currently under construction
(as consented) along Sale Lane

North facing quarry face in central
area of the quarry

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 13th September 2018
Location of photograph: 328237, 0.311470.6
Camera height 87.5m AOD
Tripod use: No



Wooded screen bund adjacent to Sale Lane

Proposed ERF building and stack



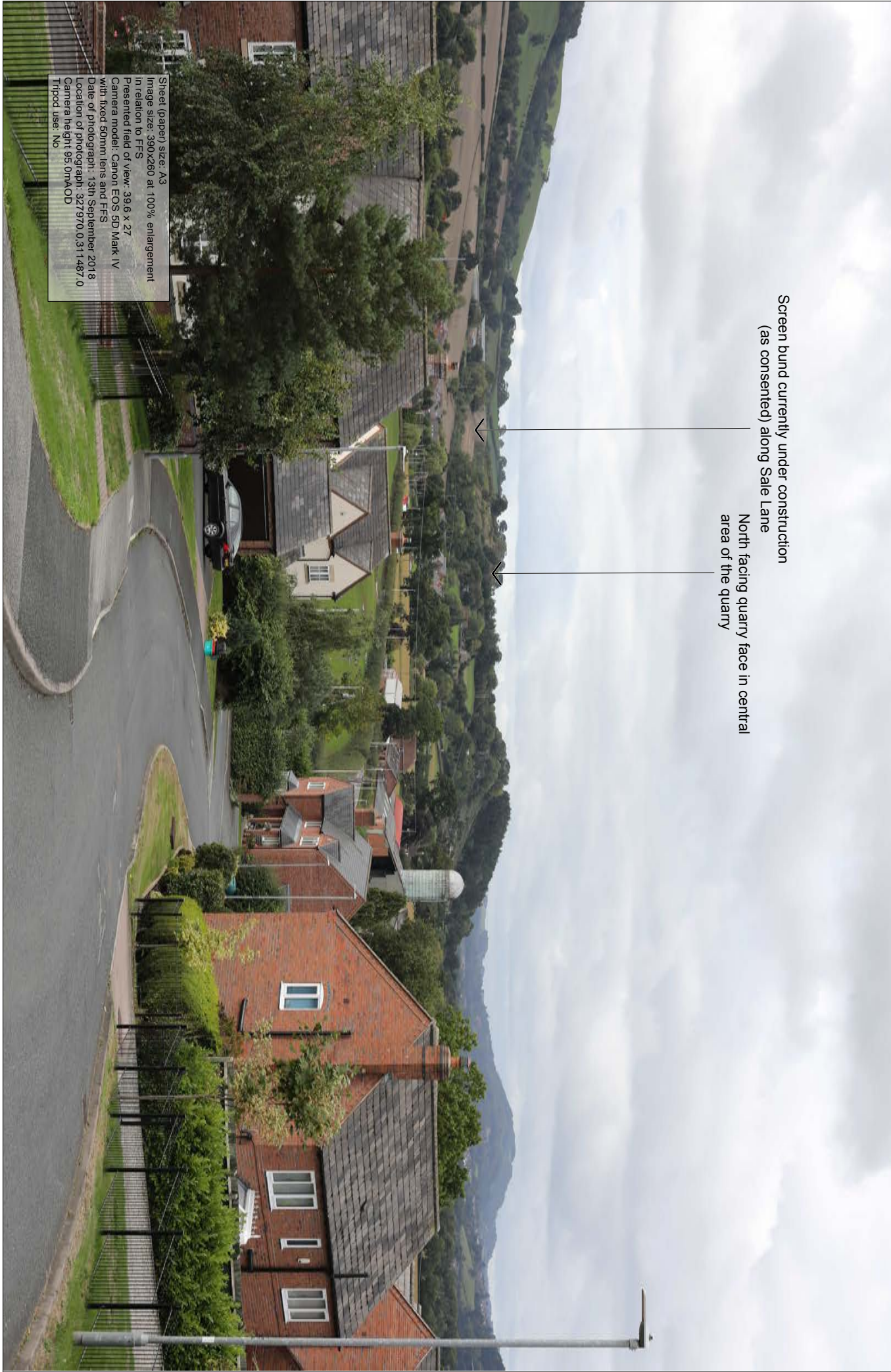
Viewpoint 10: From Garreg Bank (lower), Trewern

1.7km to the north east from the ERF
Photograph location is from an area of residential development
that climbs in ground elevation

Panoramic photographs are presented for illustration and
general reference to the accompanying LVIA text. They are not
a replacement for observation on site. Detailed single frame
photographs accompany the panoramic photographs.

Screen bund currently under construction
(as consented) along Sale Lane

North facing quarry face in central
area of the quarry

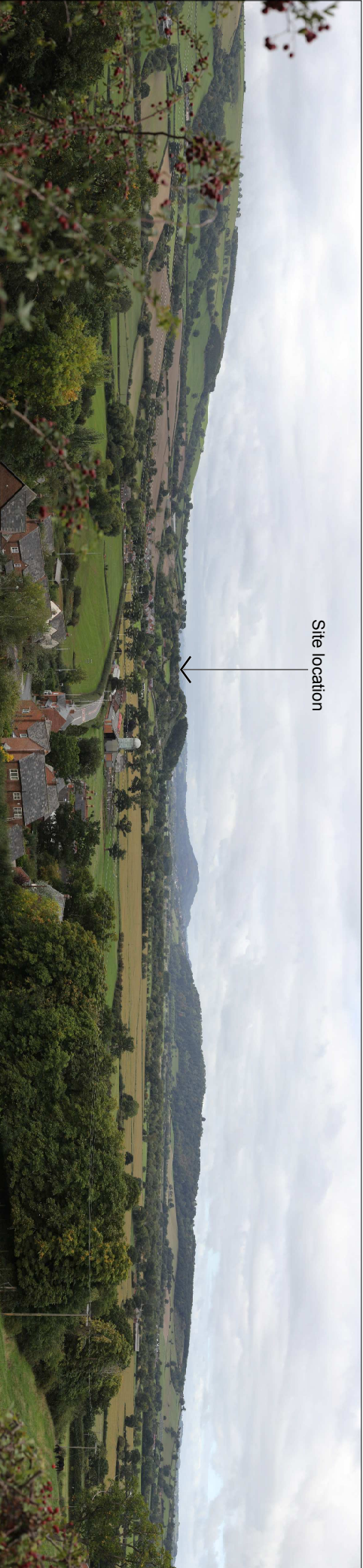


Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 13th September 2018
Location of photograph: 327970 0.311487.0
Camera height 95.0mAO
Tripod use: No

Wooded screen bund adjacent to Sale Lane

Proposed ERF building and stack





Viewpoint 11: From Garreg Bank (upper), Trewern

1.9km to the north east from the ERF. Photograph location is from a gap in the roadside hedgerow and near to residential drive/gateway

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

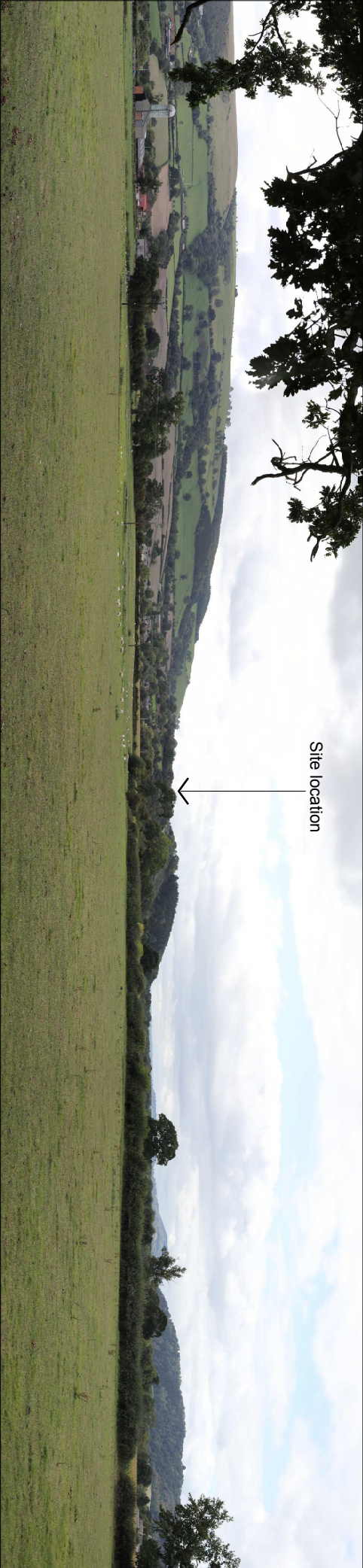
North facing extraction face in
central area of the quarry



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 13th September 2018
Location of photograph: 328041, 0.311567, 0
Camera height 118.0mAOD
Tripod use: No

Proposed ERF building and stack





Viewpoint 12: From Criggion Lane, Trevern

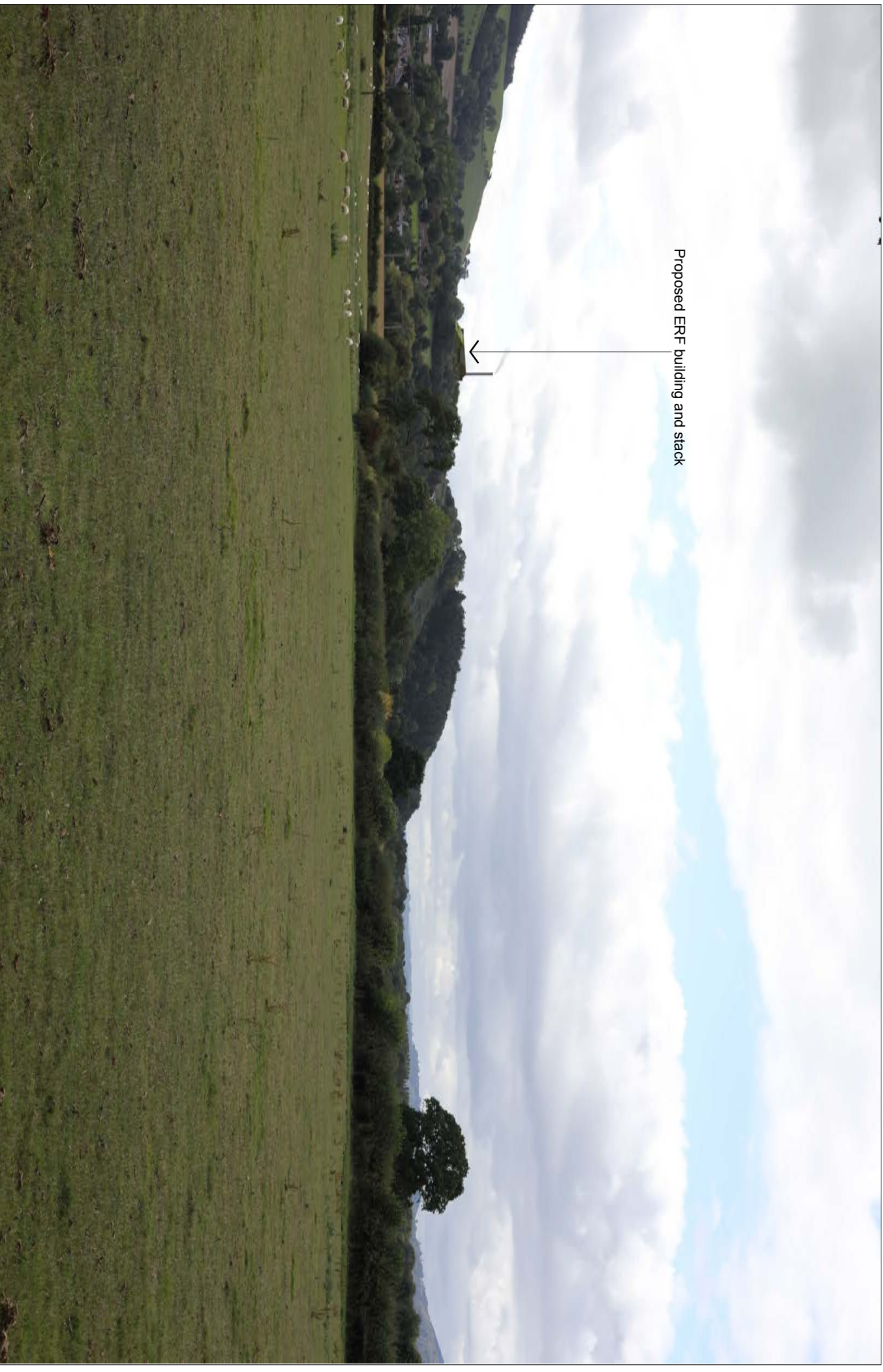
1.7km to the north east from the ERF. Photograph location is from the public road and opposite the residential properties in Trevern.

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

Northern edge of existing quarry
forms skyline and remaining site is
hidden from view



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 13th September 2018
Location of photograph: 327482.4, 311656.2
Camera height 71.13mAOD
Tripod use: No



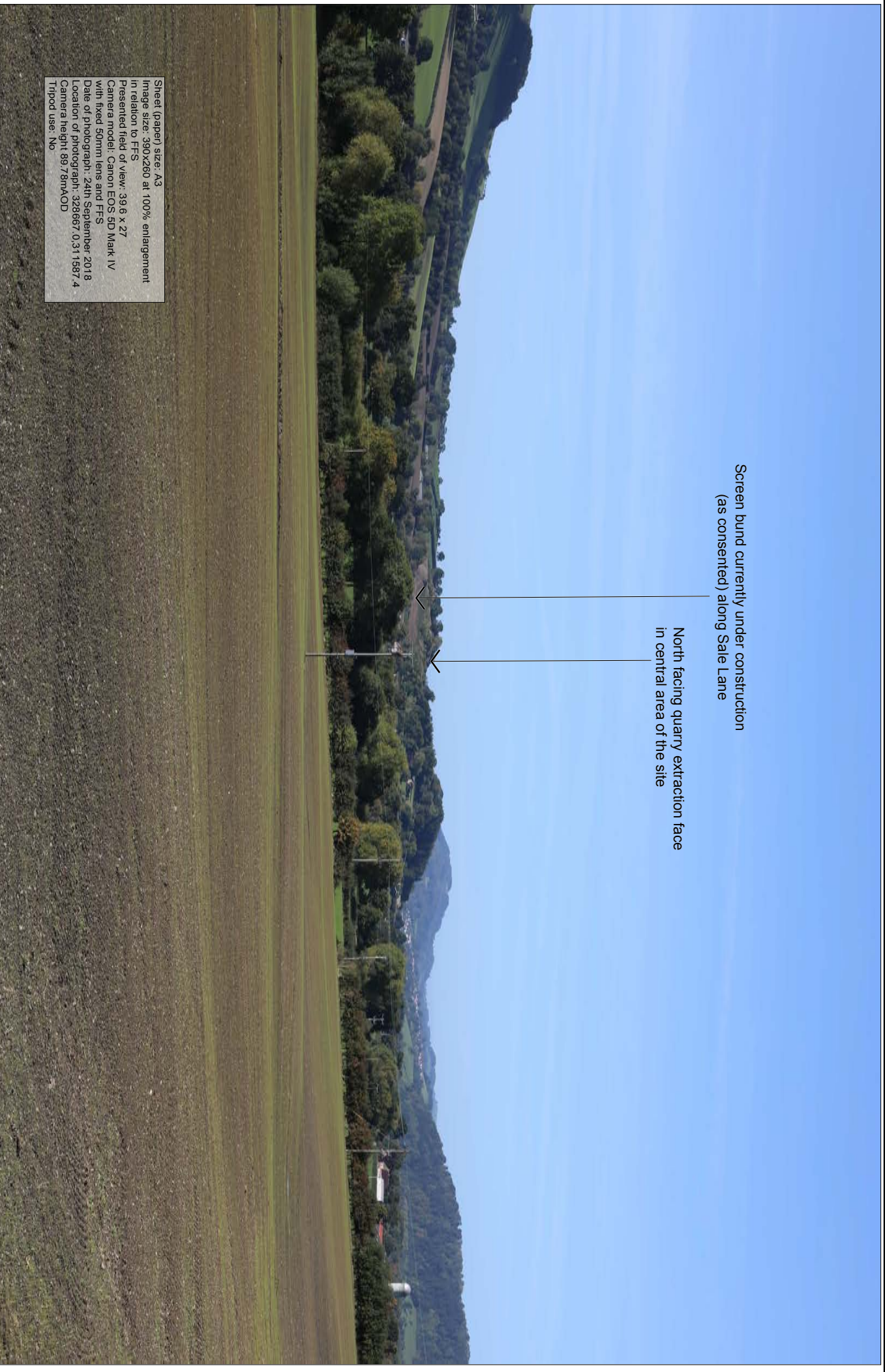
Proposed ERF building and stack



Viewpoint 13: From lane at Goffa Bank and adjacent to The Old Shop Cottage

2.3km to the north east from the ERF. Photograph location is from an open gateway accessing the public lane and opposite the residential property 'The Old Shop Cottage'

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.





Wooded screen bund adjacent to Sale Lane

Proposed ERF building and stack



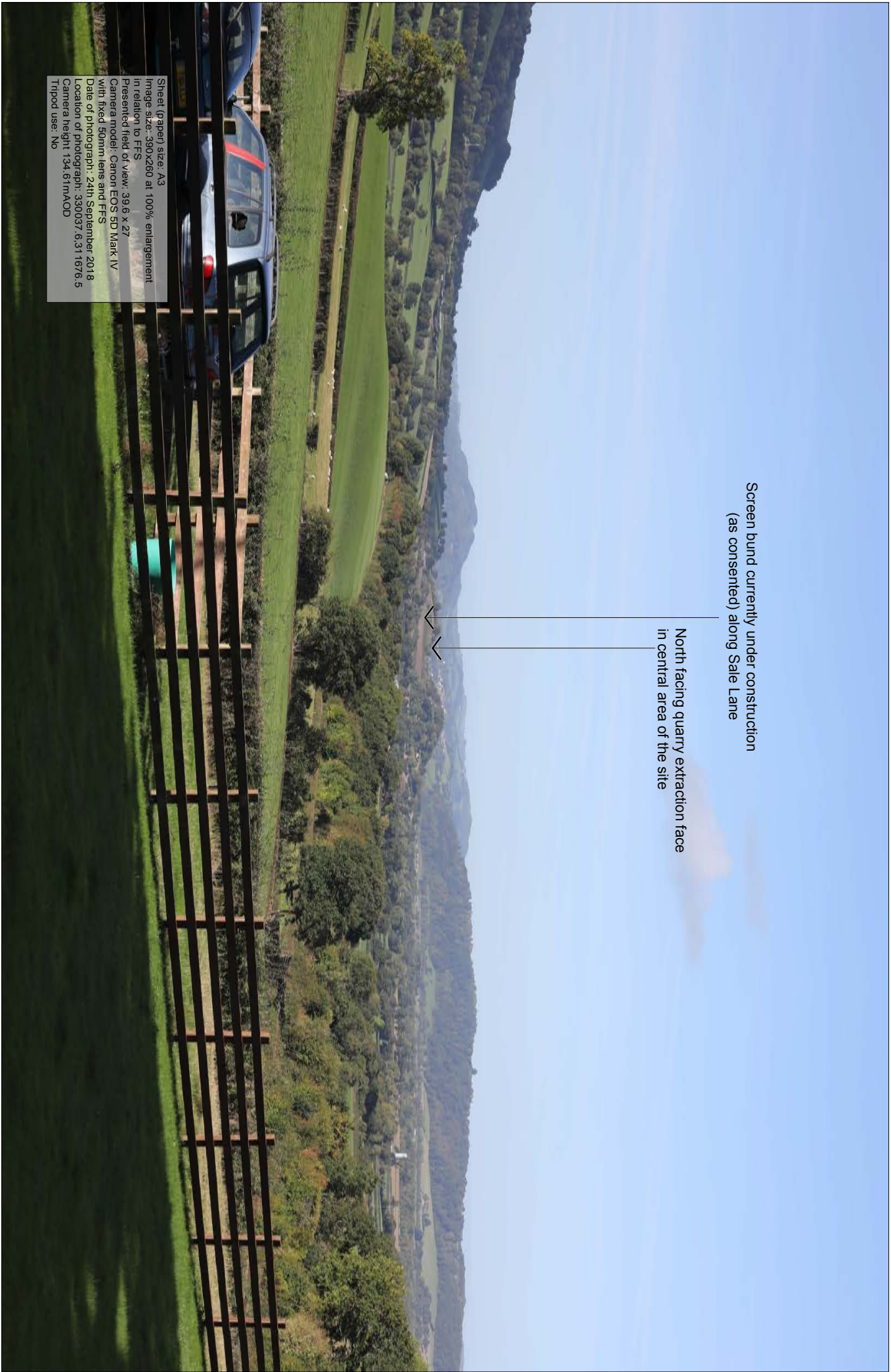
Viewpoint 14: From lane south of Middletown and adjacent to Oak Grange

3.5km to the east from the ERF. Photograph location is from a public road alongside Oak Grange

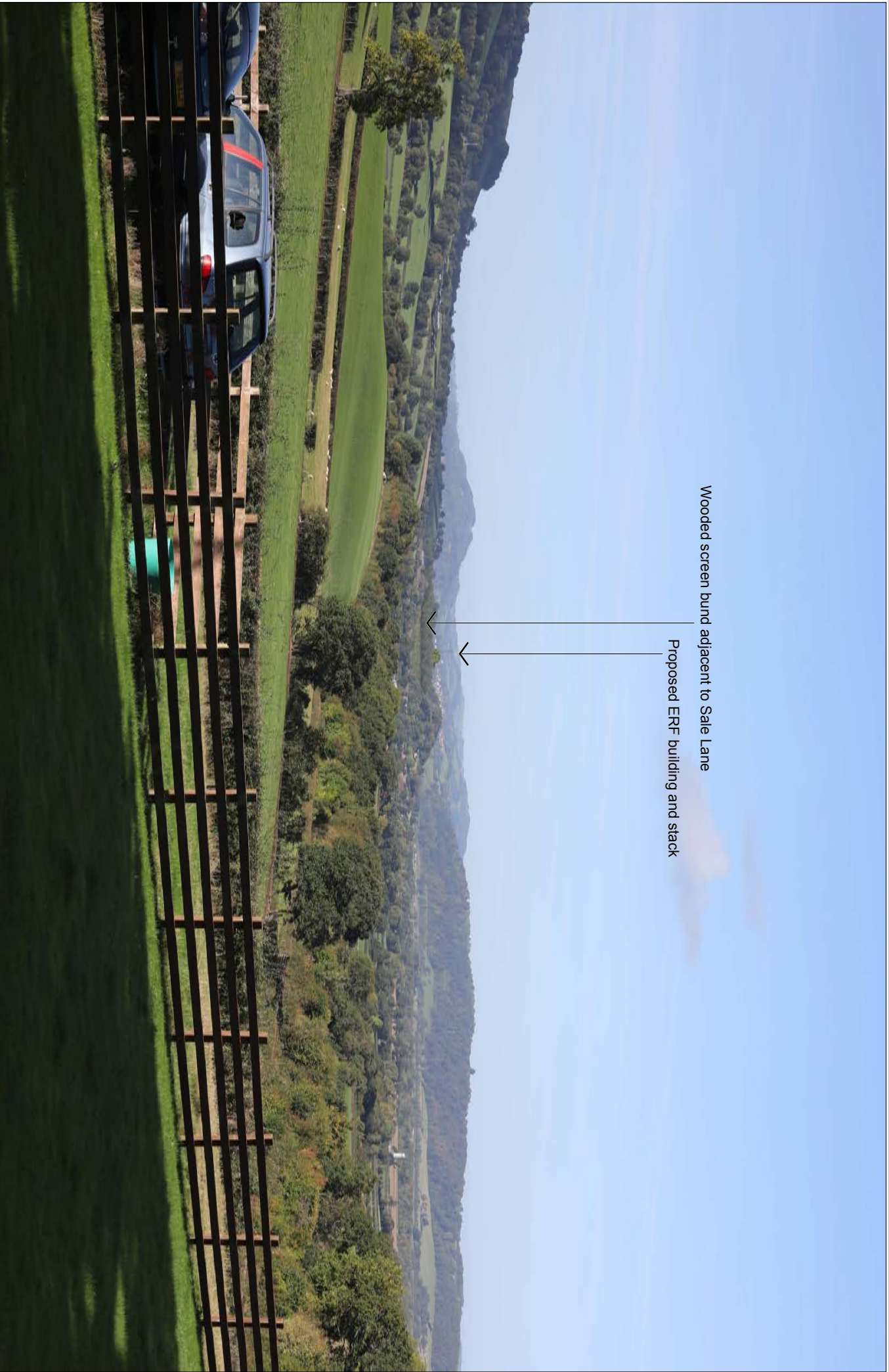
Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

Screen bund currently under construction
(as consented) along Sale Lane

North facing quarry extraction face
in central area of the site



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 24th September 2018
Location of photograph: 330037, 6,31 1676,5
Camera height 134.61mAOD
Tripod use: No



Wooded screen bund adjacent to Sale Lane

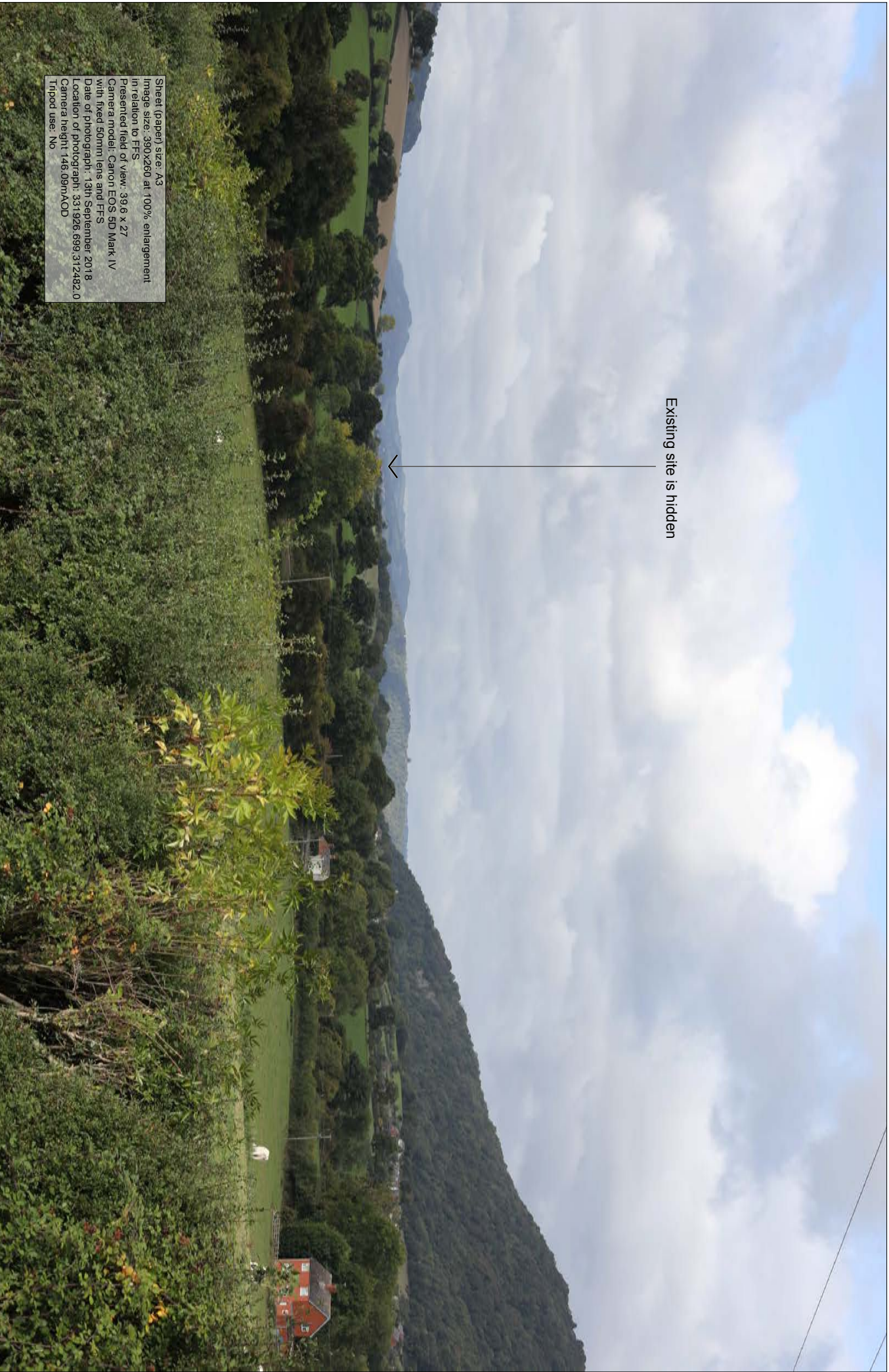
Proposed ERF building and stack



Viewpoint 15: From A458 west of Wollaston

5.6km to the east from the ERF. Photograph location is from the A458 opposite a junction to a minor road leading to Wollaston

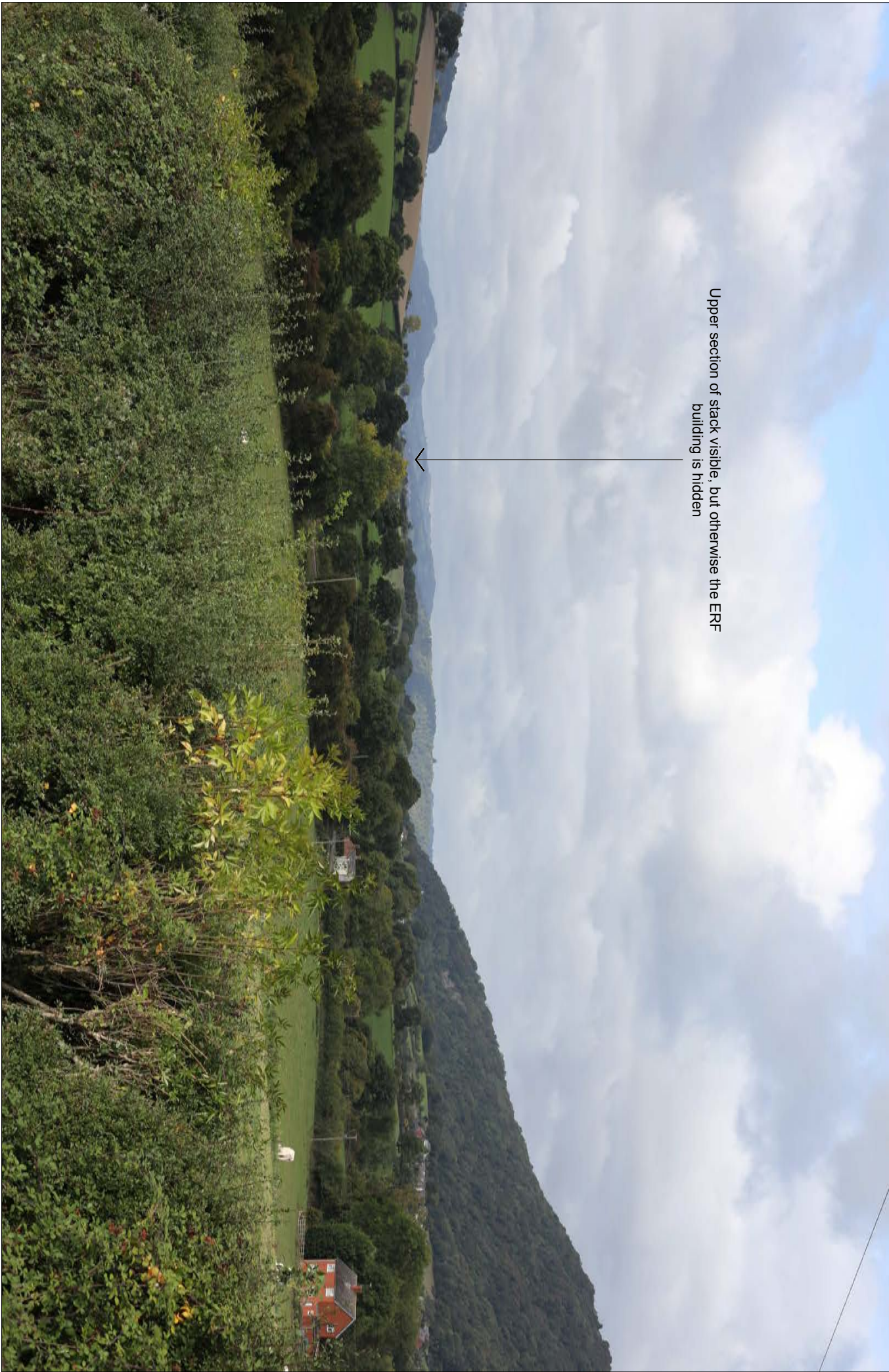
Panoramic photographs are presented for illustration and general reference to the accompanying LV/A text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

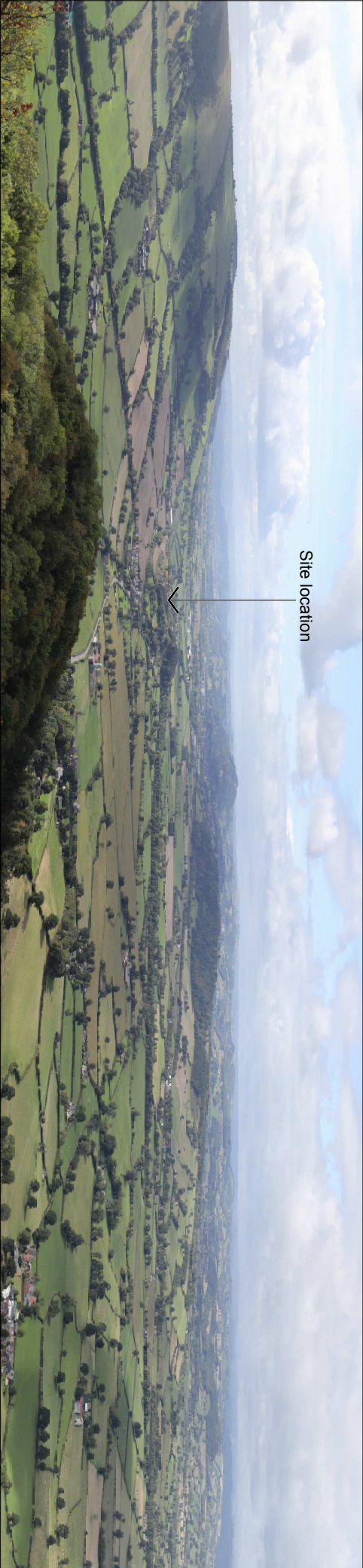


Existing site is hidden

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 13th September 2018
Location of photograph: 331926 699 312482.0
Camera height 146.09m AOD
Tripod use: No

Upper section of stack visible, but otherwise the ERF building is hidden

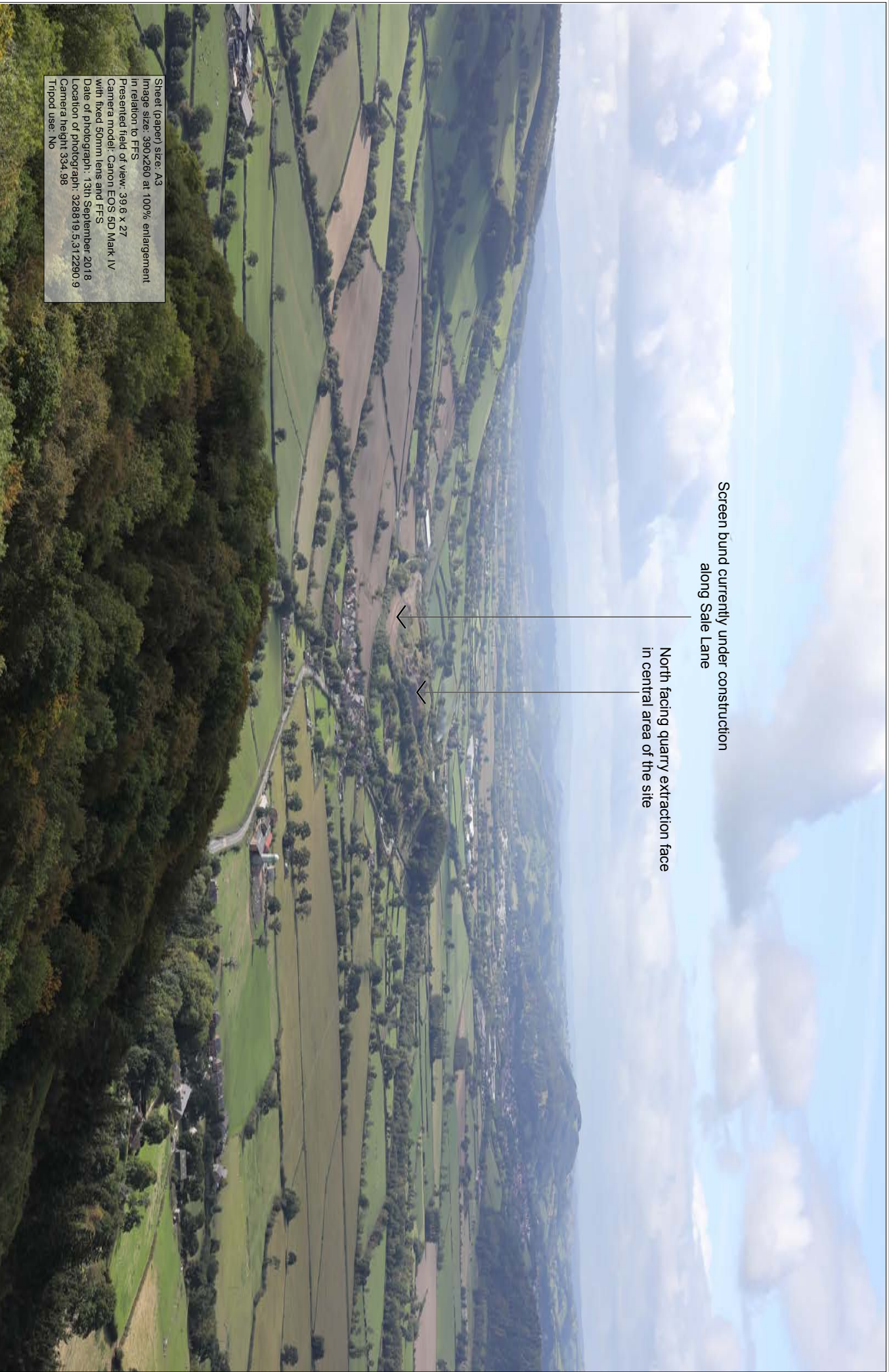




Viewpoint 16: From Moel y Gofa

3km to the north east from the ERF. Photograph location is from a public footpath and an area of woodland clearing on Moel y Gofa

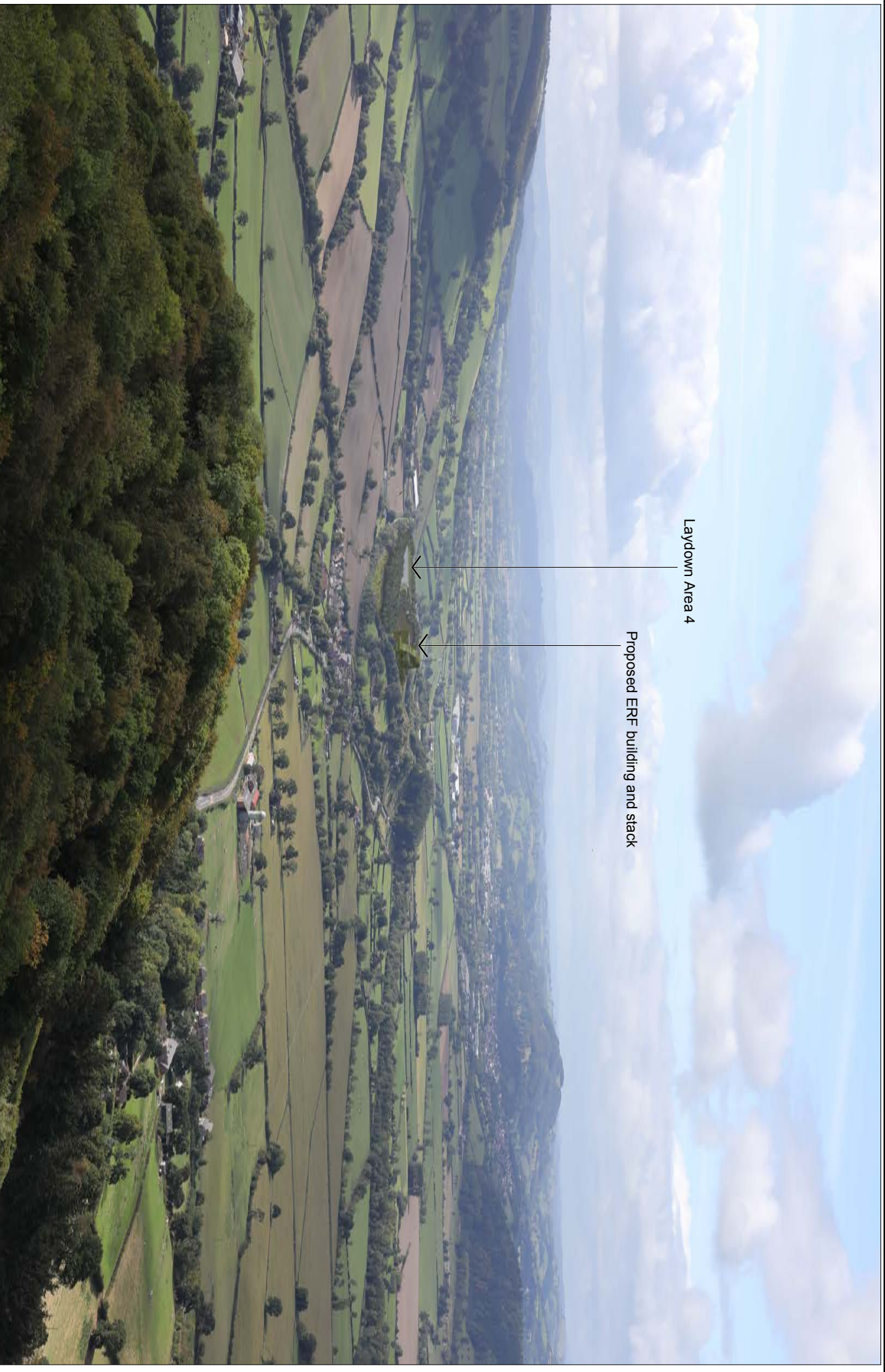
Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



Screen bund currently under construction
along Sale Lane

North facing quarry extraction face
in central area of the site

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 13th September 2018
Location of photograph: 328819.5, 312290.9
Camera height 334.98
Tripod use: No



Laydown Area 4

Proposed ERF building and stack



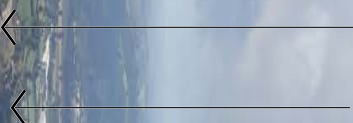
Viewpoint 17: From Middletown Hill

5km to the north east from the ERF. The photograph location is from the Iron Age hill fort

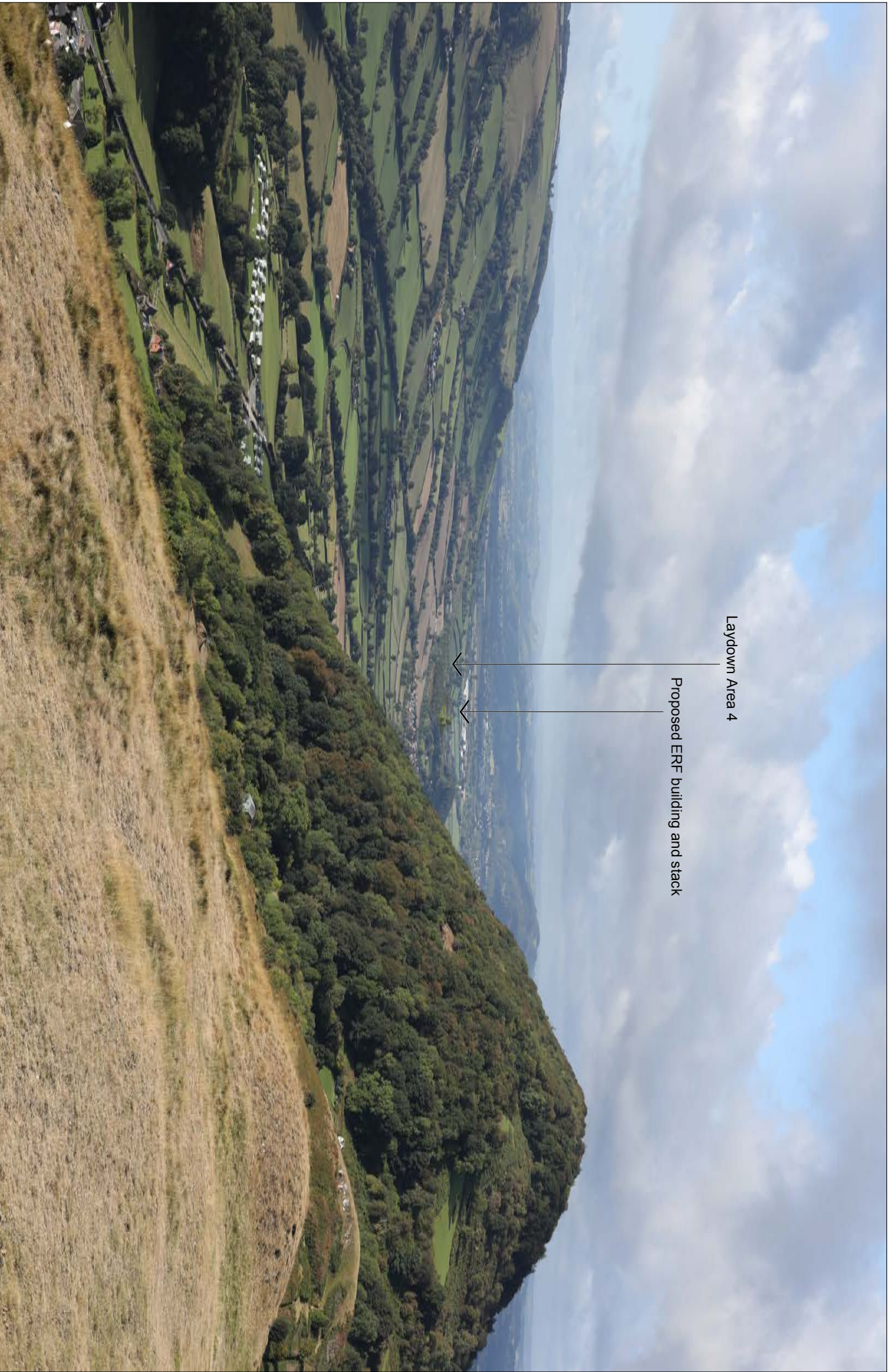
Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

Screen bund currently under construction
(as consented) along Sale Lane

North facing quarry extraction face
in central area of the site

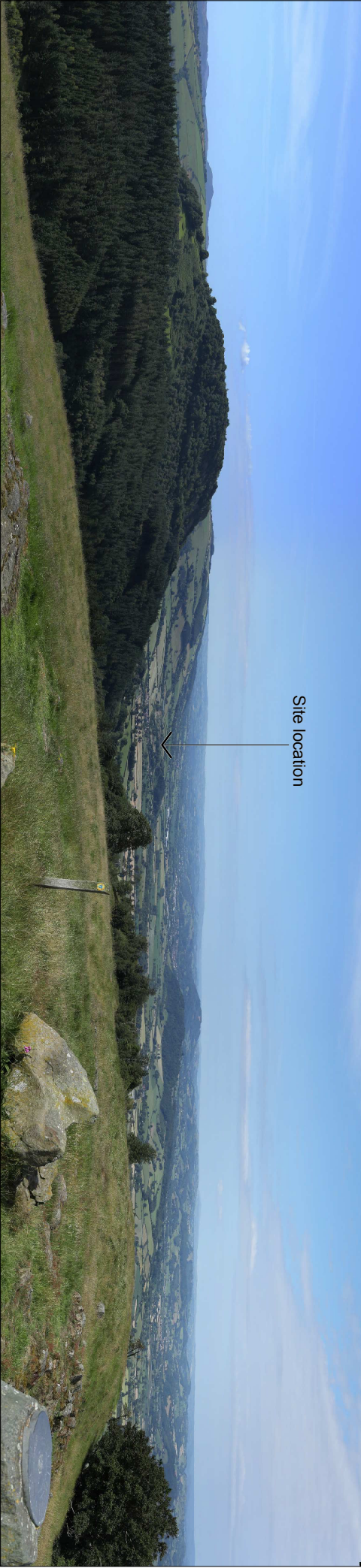


Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 13th September 2018
Location of photograph: 330517 0.313332.01
Camera height 367.73mAOD
Tripod use: No



Laydown Area 4

Proposed ERF building and stack



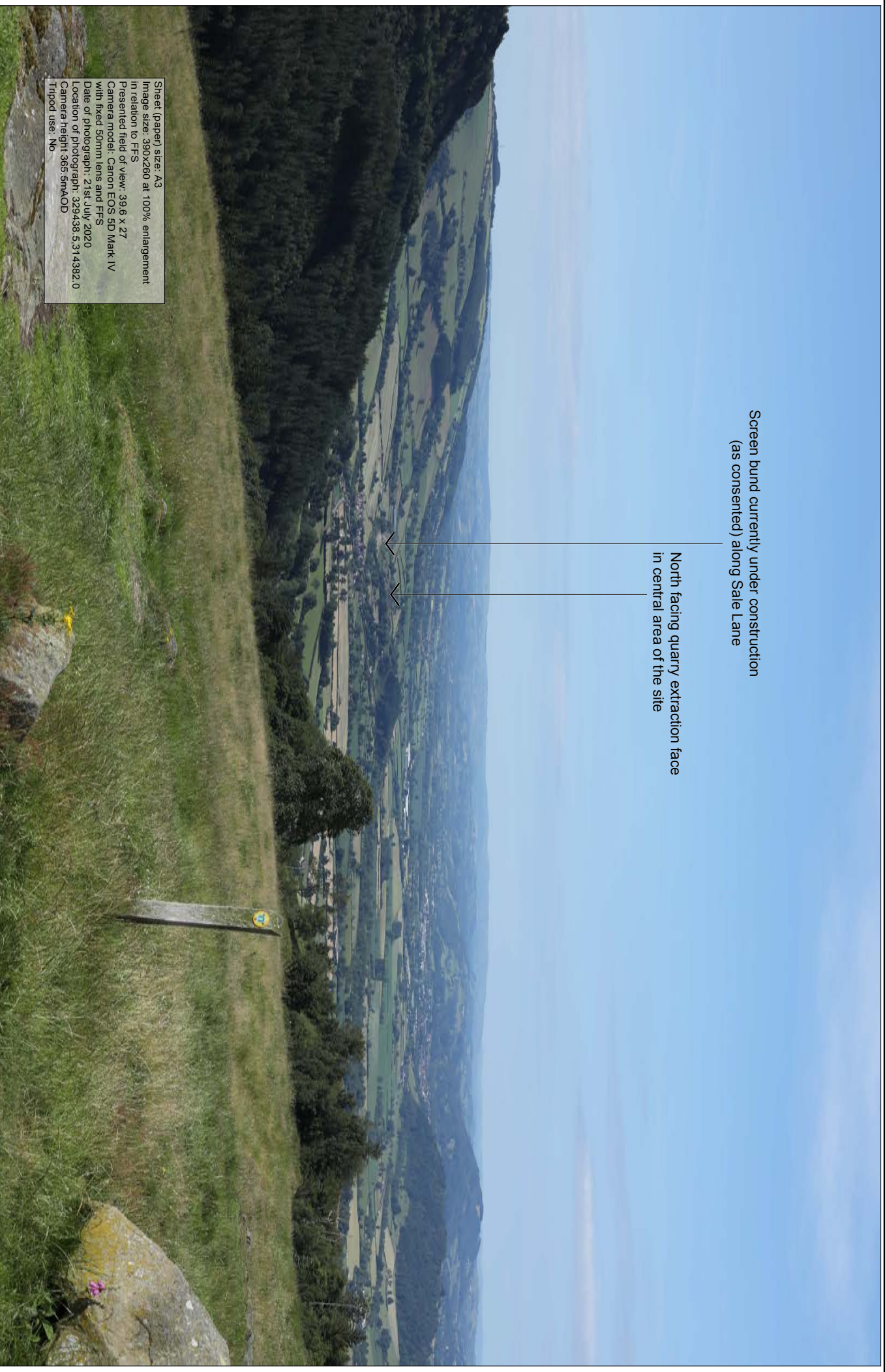
Viewpoint 18: From Rodney's Pillar

5km to the north from the ERF. The photograph location is from the trig point on the western side of Rodney's Pillar (monument)

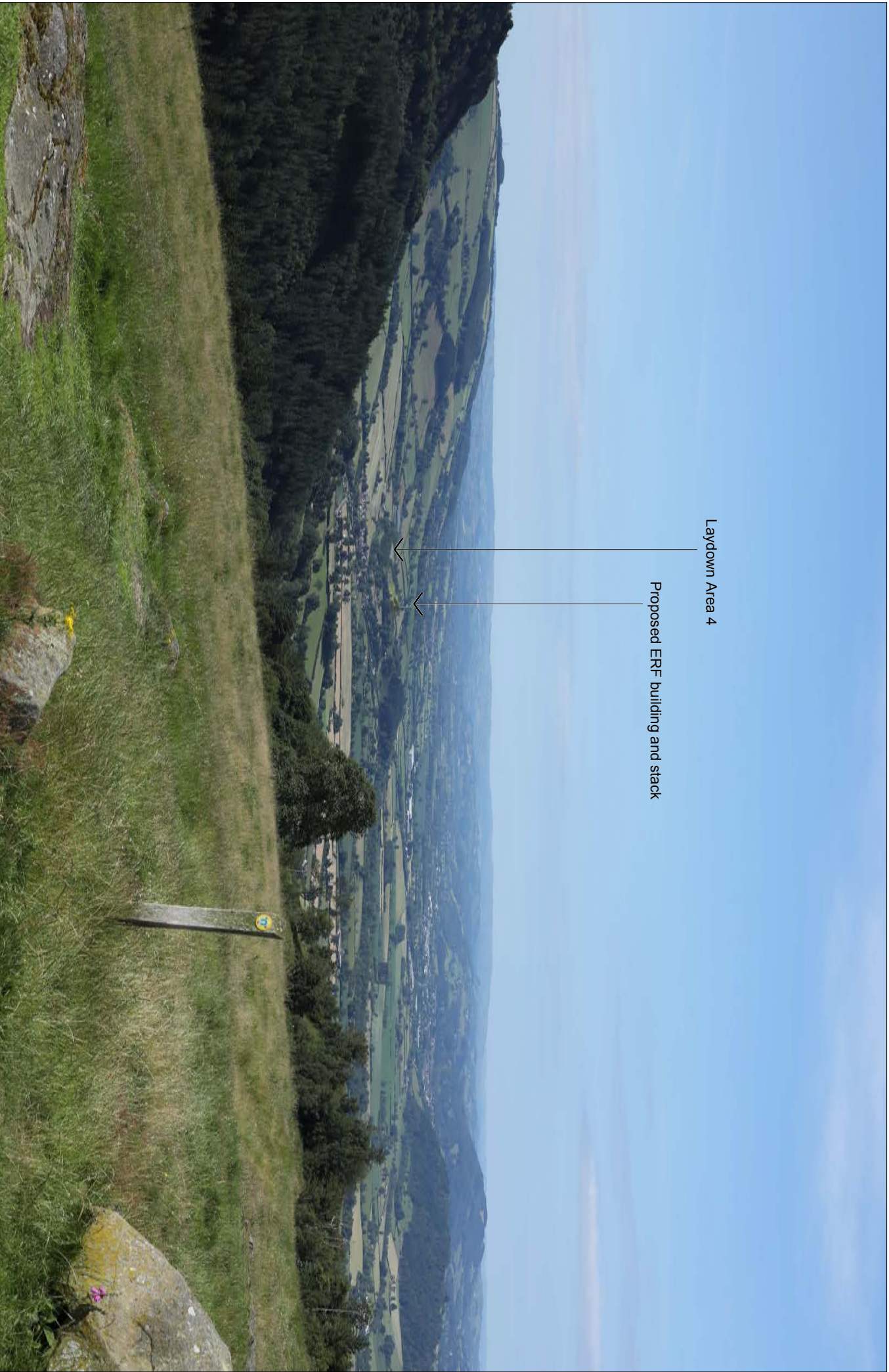
Panoramic photographs are presented for illustration and general reference to the accompanying LV/A text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

Screen bund currently under construction
(as consented) along Sale Lane

North facing quarry extraction face
in central area of the site



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 21st July 2020
Location of photograph: 329438.5, 314382.0
Camera height 365 smAOD
Tripod use: No



Laydown Area 4

Proposed ERF building and stack



Viewpoint 19: From public footpath near Coppice Farm East (near Pool Quay)

2.3km to the north west from the ERF. The photograph location is from a public footpath connecting to lane and leading toward the Severn Way along the Welshpool Canal

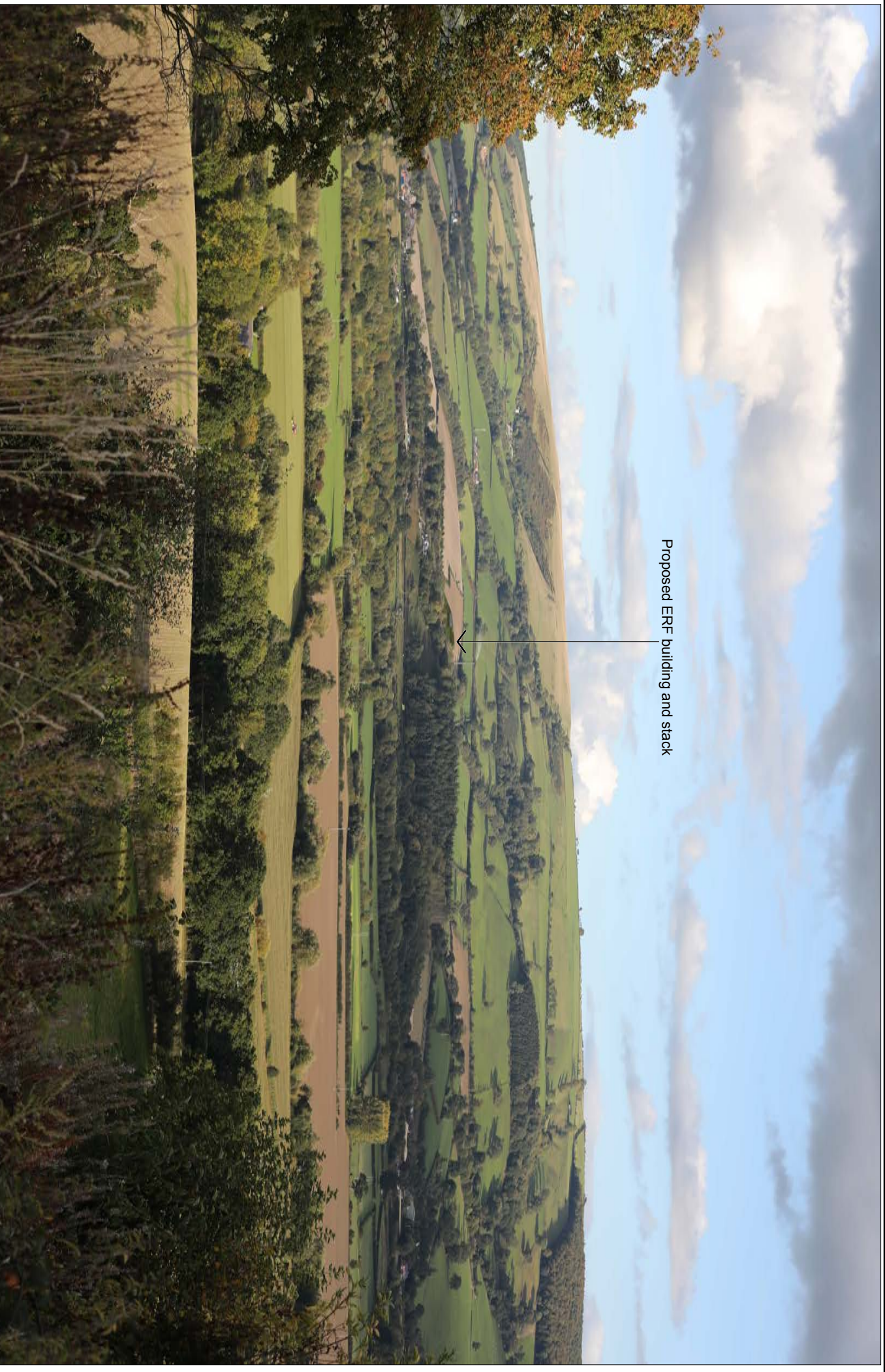
Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



Eastern quarry sector hidden by existing hill and woodland

Existing extraction within the western quarry sector

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV with fixed 50mm lens and FFS
Date of photograph: 24th September 2018
Location of photograph: 324873 0 311355.0
Camera height 141.15m AOD
Tripod use: No



Proposed ERF building and stack

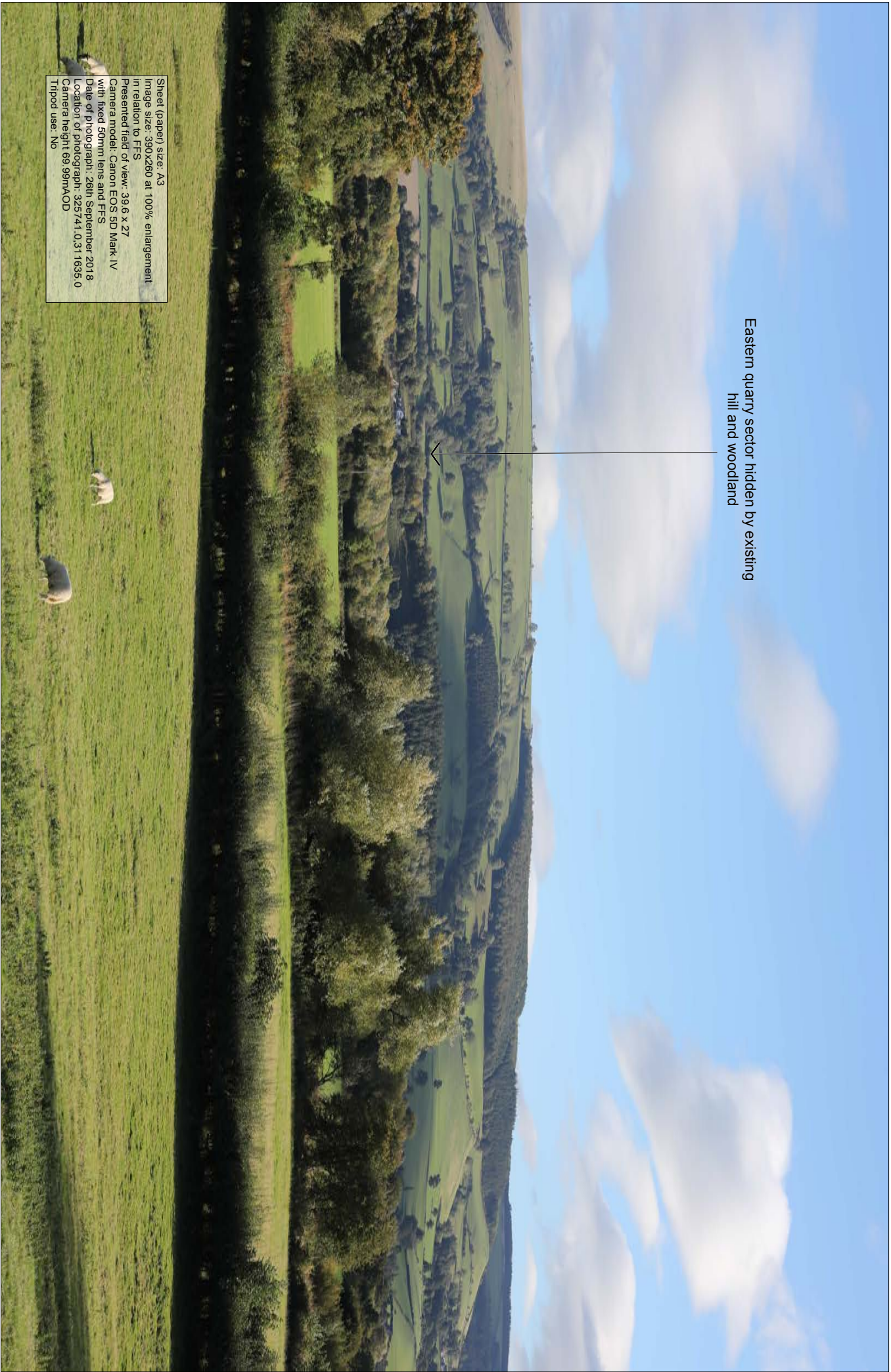


Viewpoint 20: From A483 at Pool Quay

1.8km to the north west from the ERF. The photograph location is from the A458 (Weisnpool to Shrewsbury road), and on the route of the Severn Way footpath and Orfa Dyke Trail.

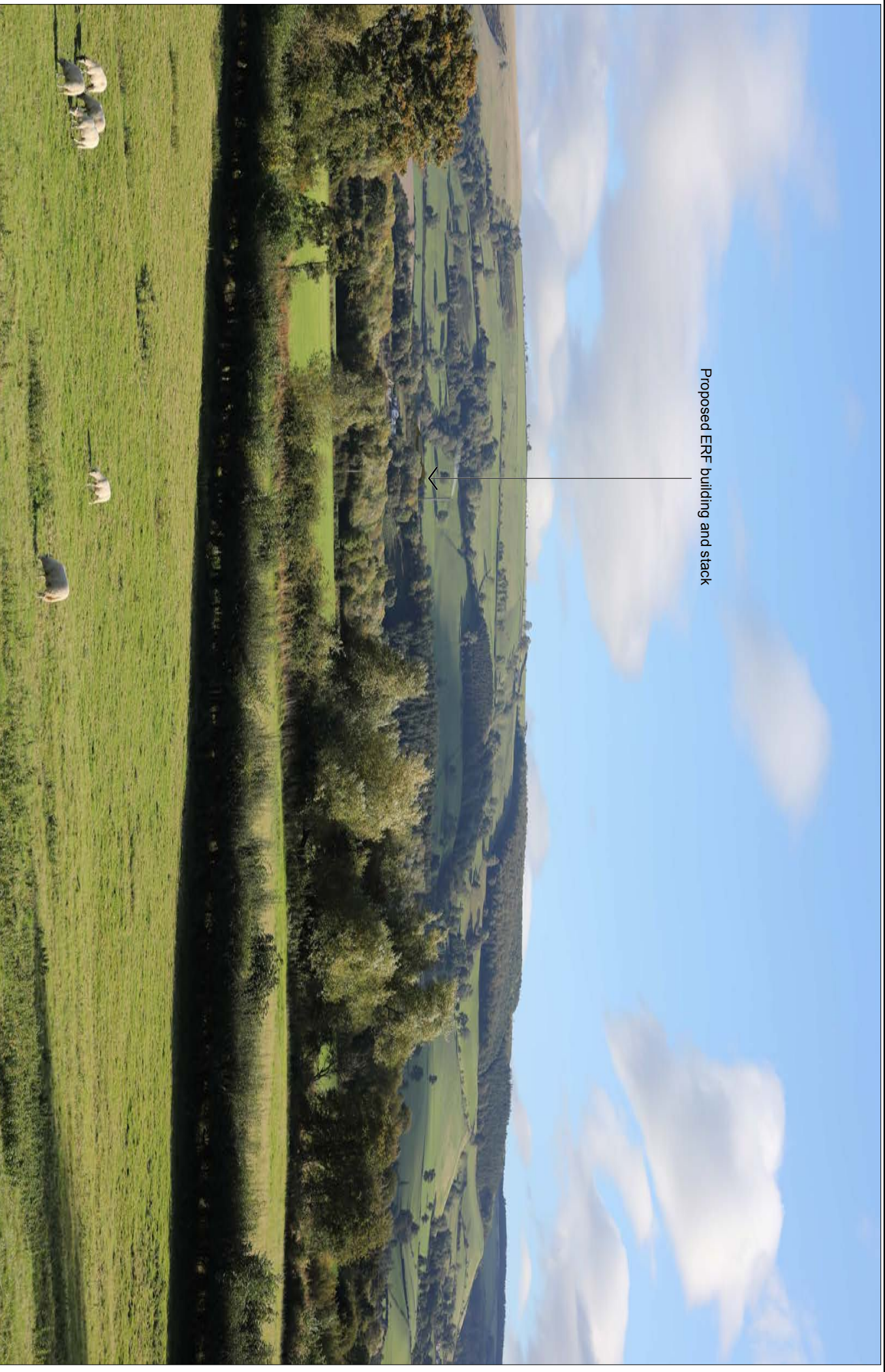
Panoramic photographs are presented for illustration and general reference to the accompanying LV/A text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

Eastern quarry sector hidden by existing
hill and woodland



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 26th September 2018
Location of photograph: 325741, 0, 311635, 0
Camera height 69.99mAOD
Tripod use: No

Proposed ERF building and stack





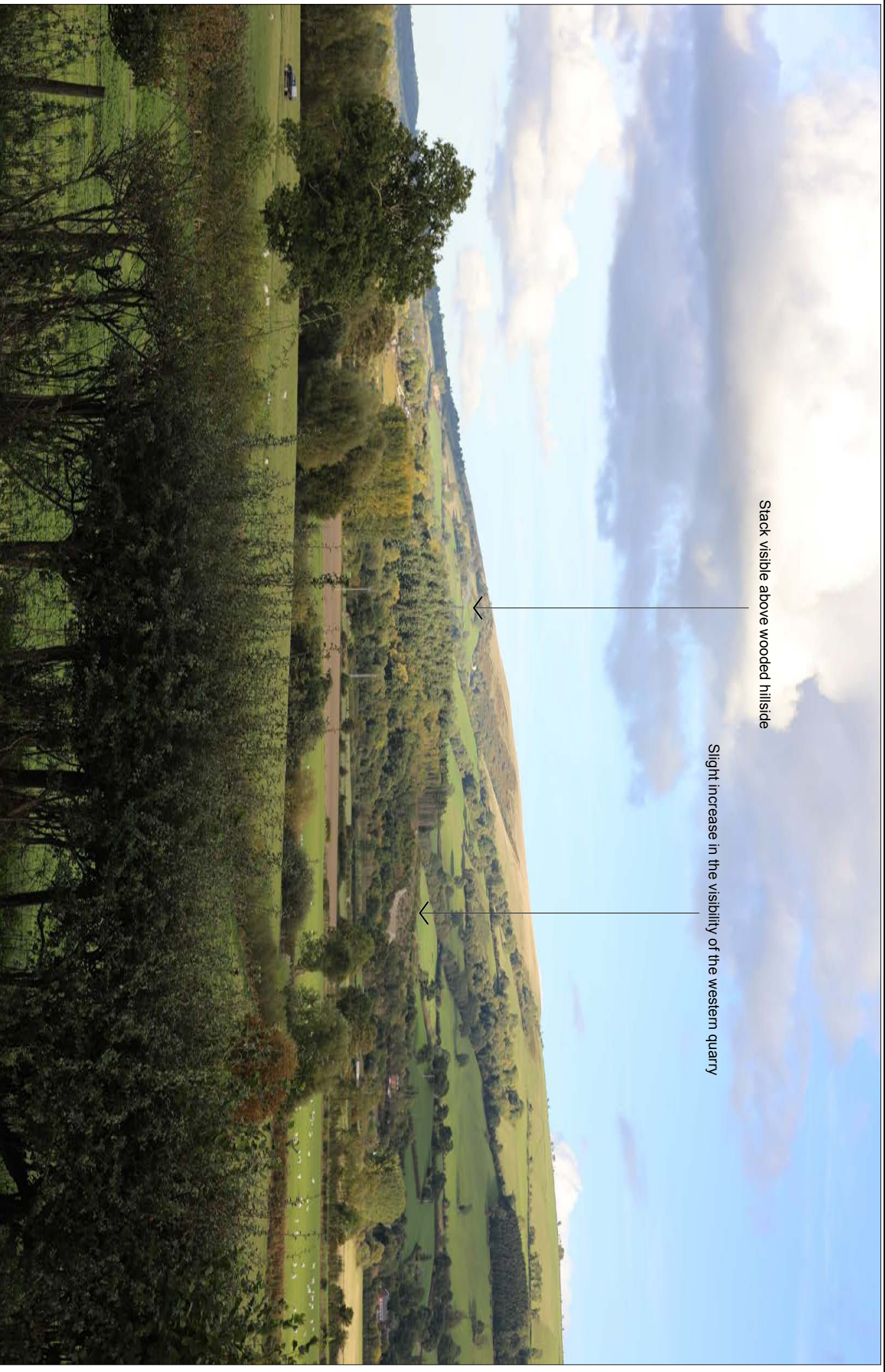
Viewpoint 21: From A483 near Pool Quay at Strata Marcella Abbey

1.8km to the north west from the ERF. The photograph location is from the A458 (Weishpool to Shrewsbury road), and at a location along the Weishpool Canal and Severn Valley Path and Offa Dyke Path

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

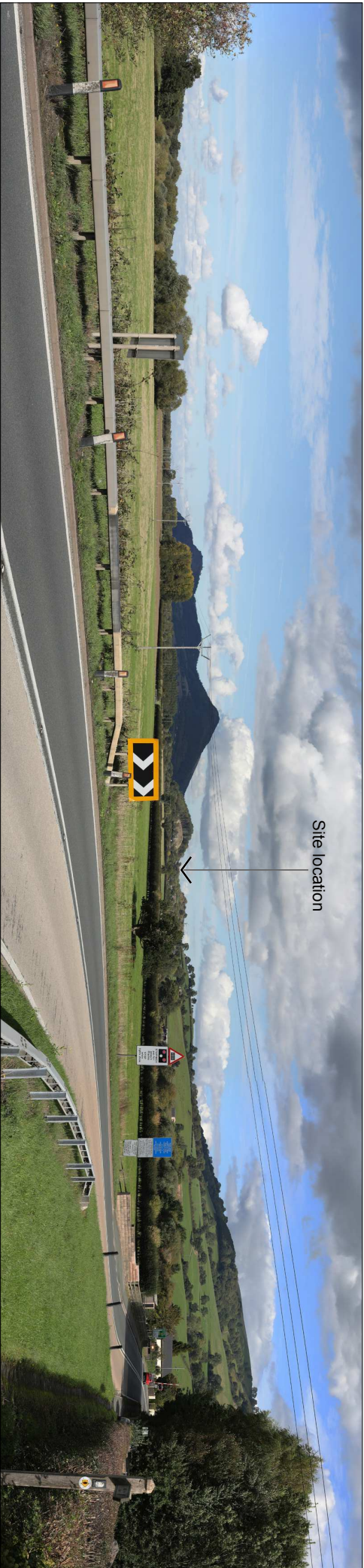


Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 24th September 2018
Location of photograph: 324680 0.308920.5
Camera height 71.3mAO
Tripod use: No



Stack visible above wooded hillside

Slight increase in the visibility of the western quarry

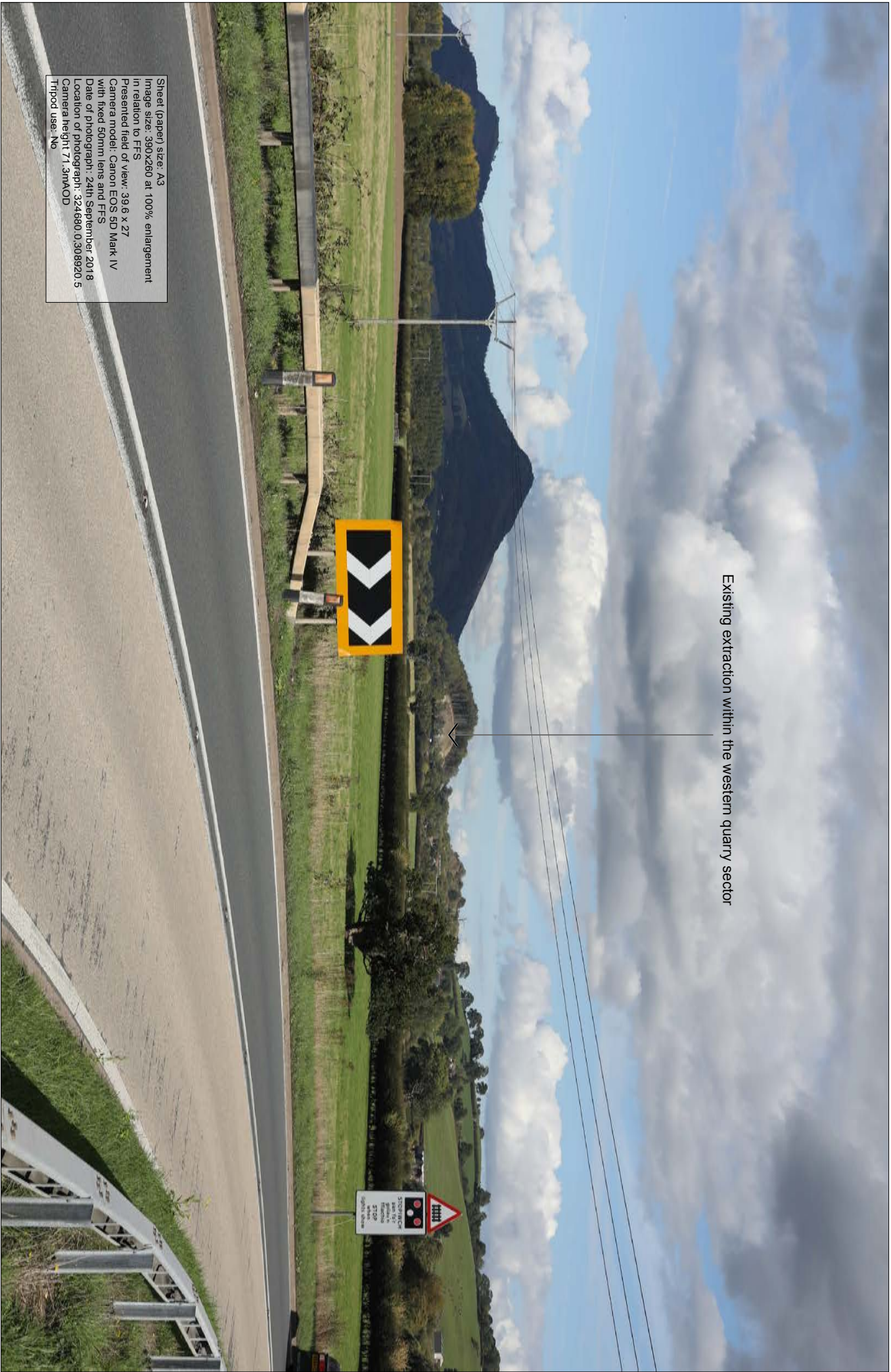


Viewpoint 22: From A458 at Buttington Bridge

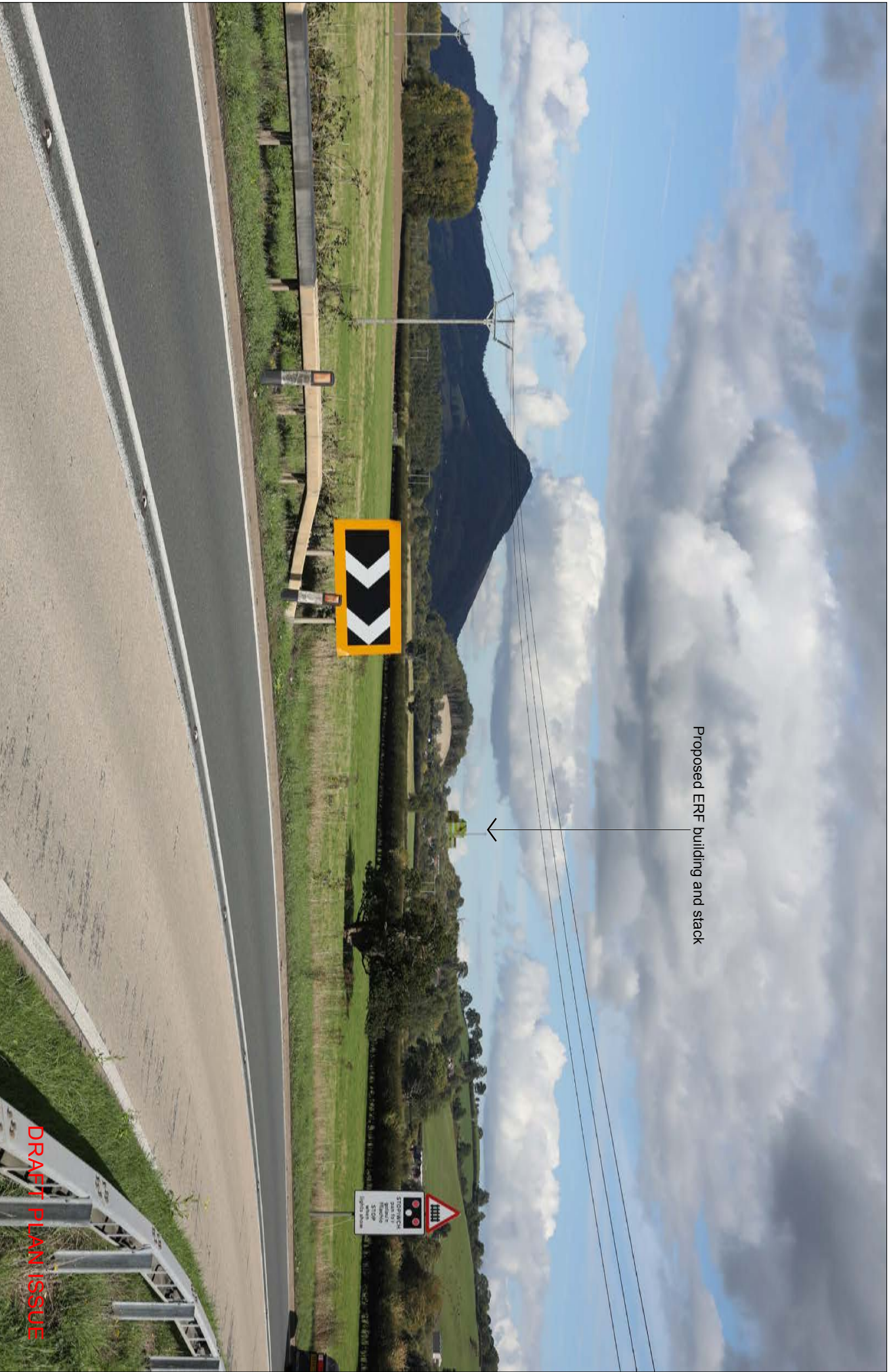
2.4km to the south west from the ERF, the photograph location is from the A458 (Weishpool to Shrewsbury road), and at the bridge over the River Severn. Views gained are from road users, employment areas and the livestock market

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

Existing extraction within the western quarry sector



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 24th September 2018
Location of photograph: 324680 0.308920.5
Camera height 71.3mAO
Tripod use: No



Proposed ERF building and stack



Viewpoint 23: From B4381 at Welshpool

5km to the south west from the ERF. The photograph location is from a road bridge over the Welshpool bypass (A483) and leading towards the industrial estate area

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

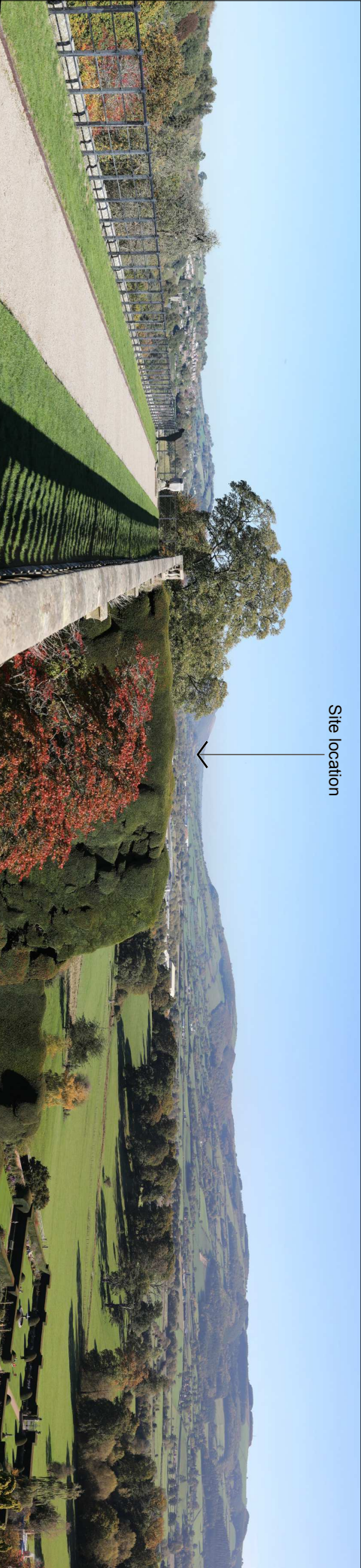
South facing quarry extraction faces within the site



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
With fixed 50mm lens and FFS
Date of photograph: 24th September 2018
Location of photograph: 322888, 69.307092, 4
Camera height 83.2mAO
Tripod use: No



Proposed ERF building and stack



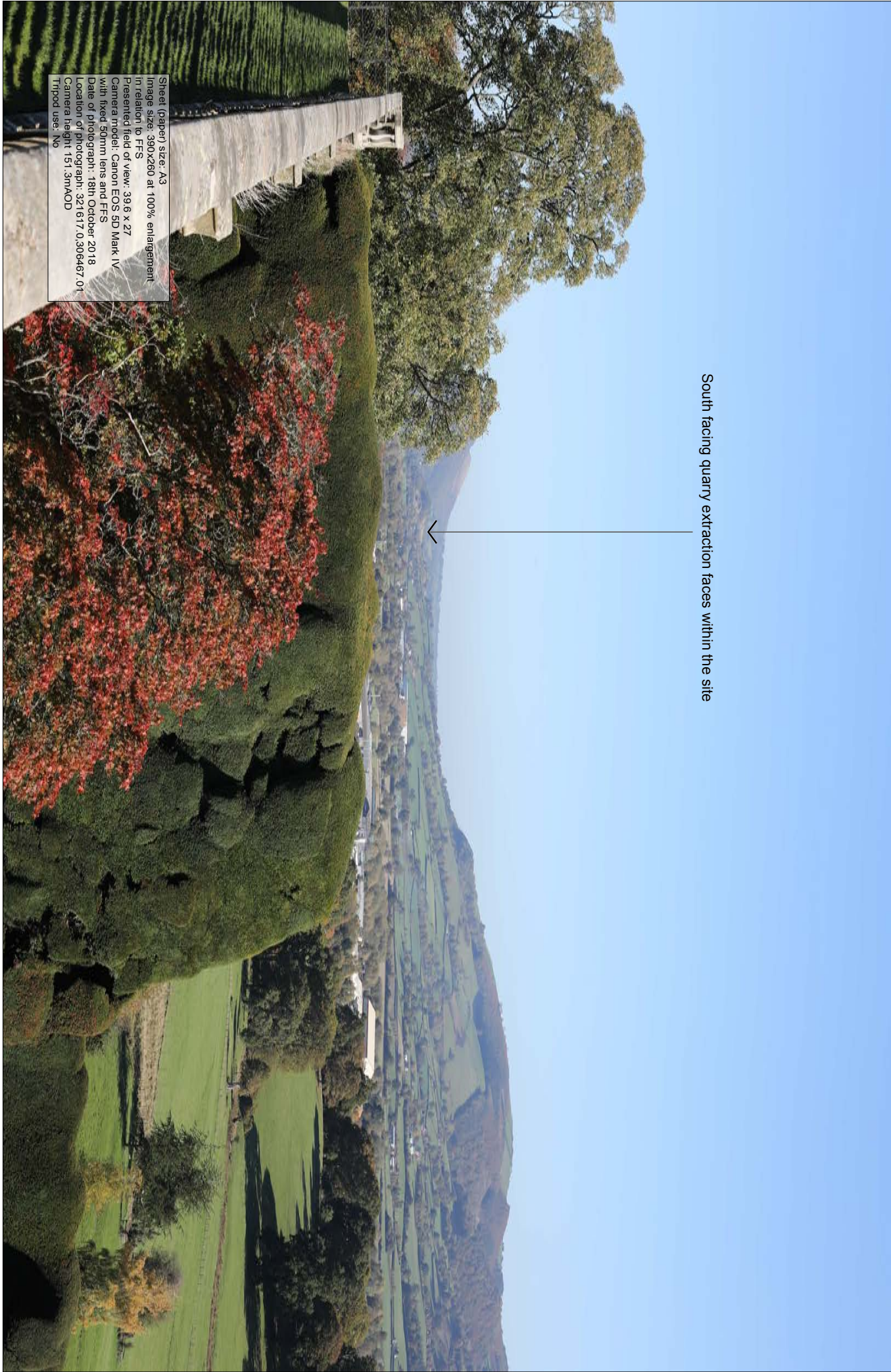
Site location

Viewpoint 24: From Powys Castle, Welshpool

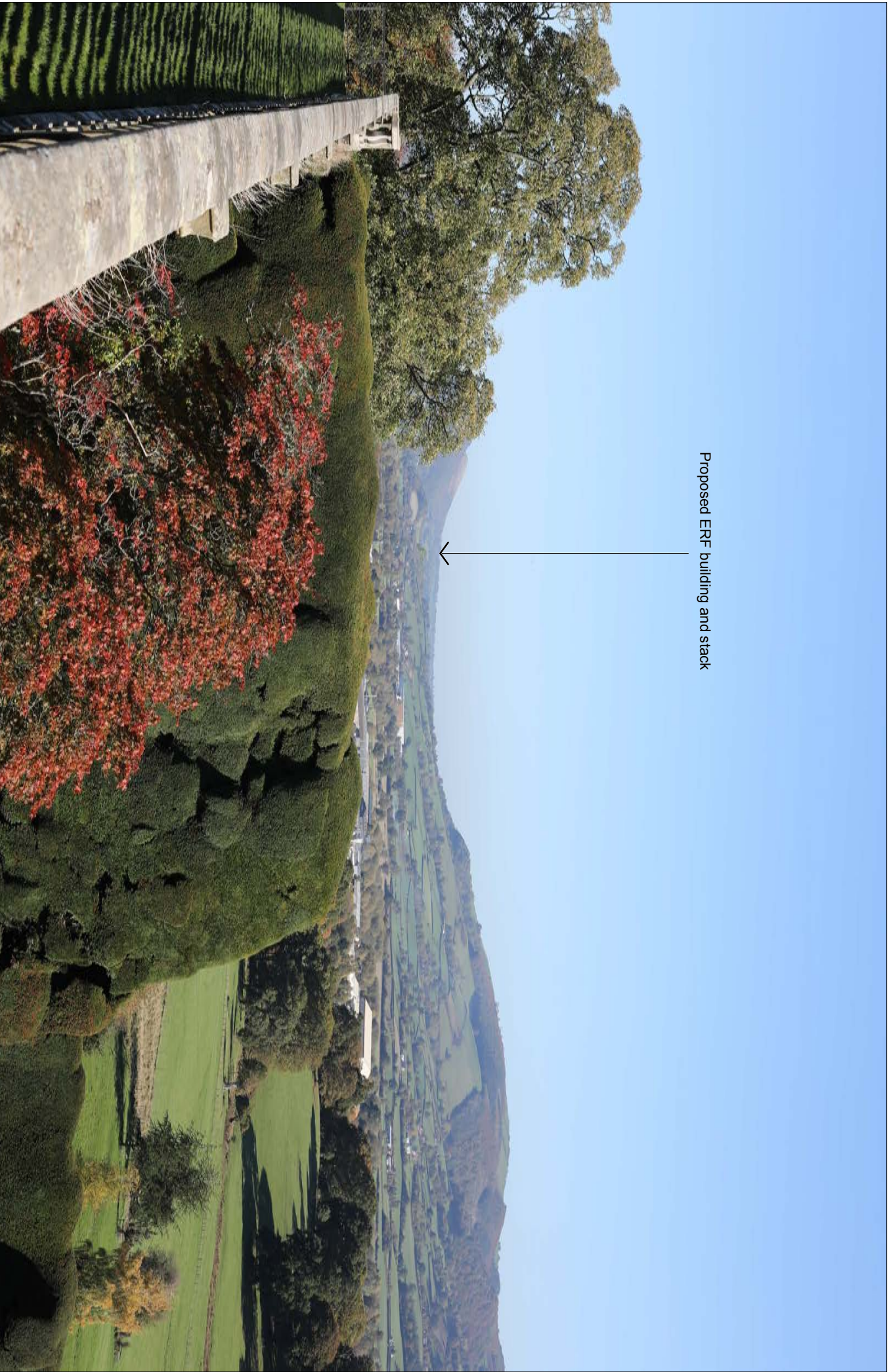
6.4km to the south west from the ERF. The photograph location is from the terracing within the ornamental gardens of Powys Castle (National Trust)

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

South facing quarry extraction faces within the site



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 18th October 2018
Location of photograph: 321617 0.306467 01
Camera height 151.3m AOD
Tripod use: No



Proposed ERF building and stack

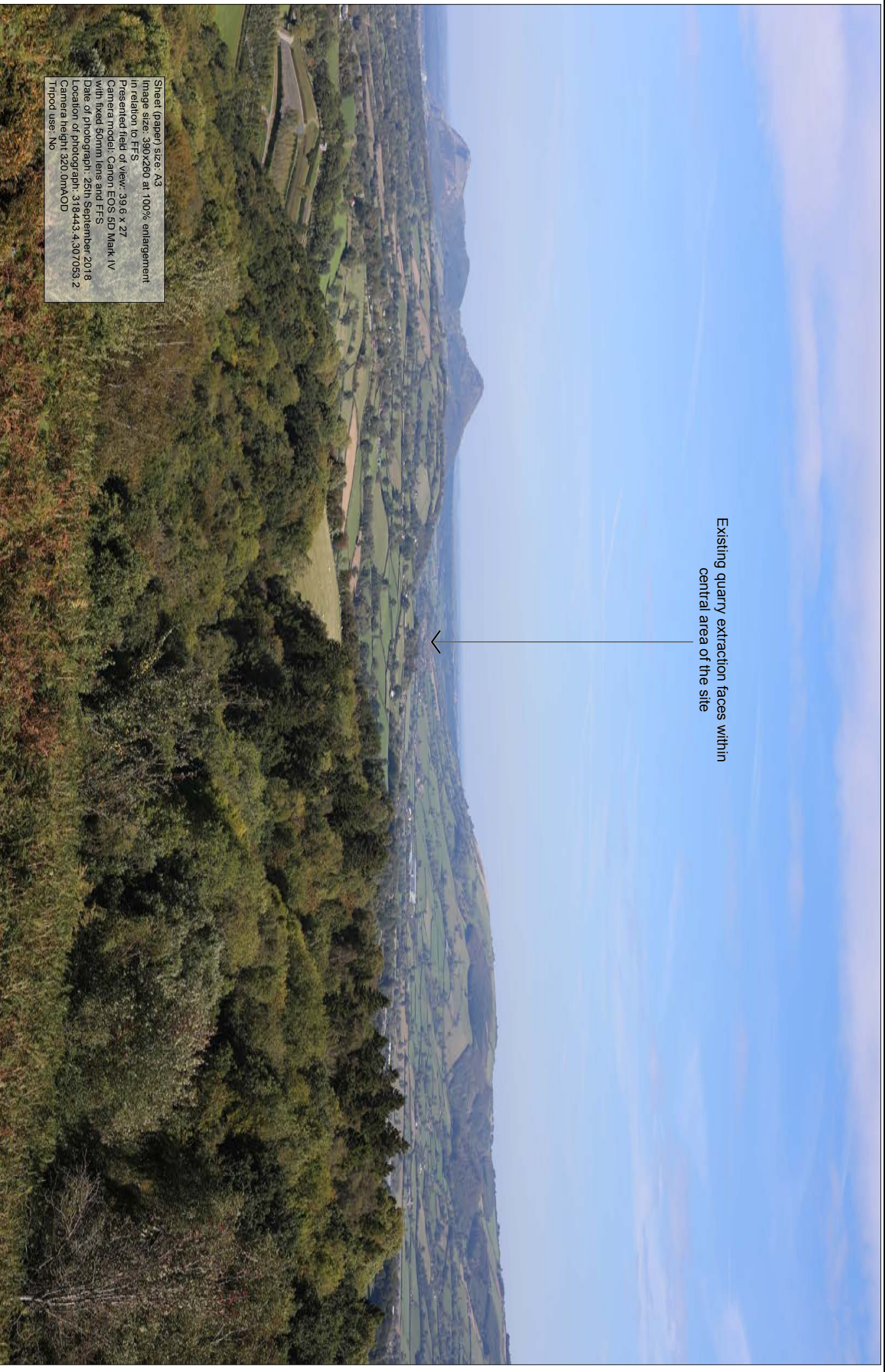


Viewpoint 25: From Y Gofla (Welshpool Golf Club)

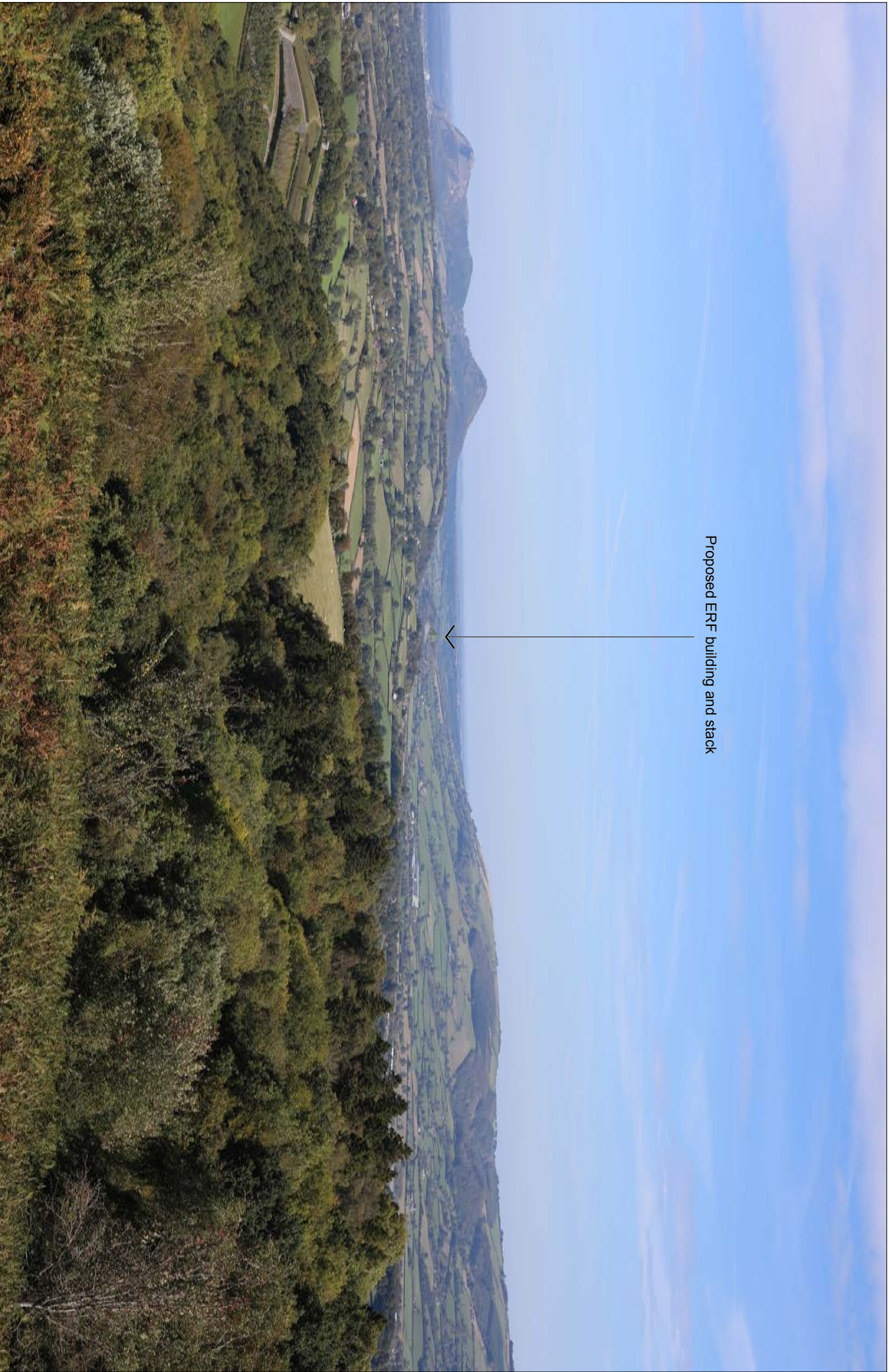
8.9km to the south west from the ERF. The photograph location is from the trig point near to the Welshpool (y Gofla) Golf Club

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

Existing quarry extraction faces within
central area of the site



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 25th September 2018
Location of photograph: 318443 4.307053.2
Camera height 320.0m AOD
Tripod use: No



Proposed ERF building and stack



Viewpoint 26: From A483 at Rhiw Bridge (Berriew)

12km to the south west from the ERF. The photograph location is from the side of the road, adjacent to Refail, and near to the Berriew village area

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



Direction of site, but hidden from direct view



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 25th September 2018
Location of photograph: 319409 6,300518,0
Camera height 80.0mAO
Tripod use: No



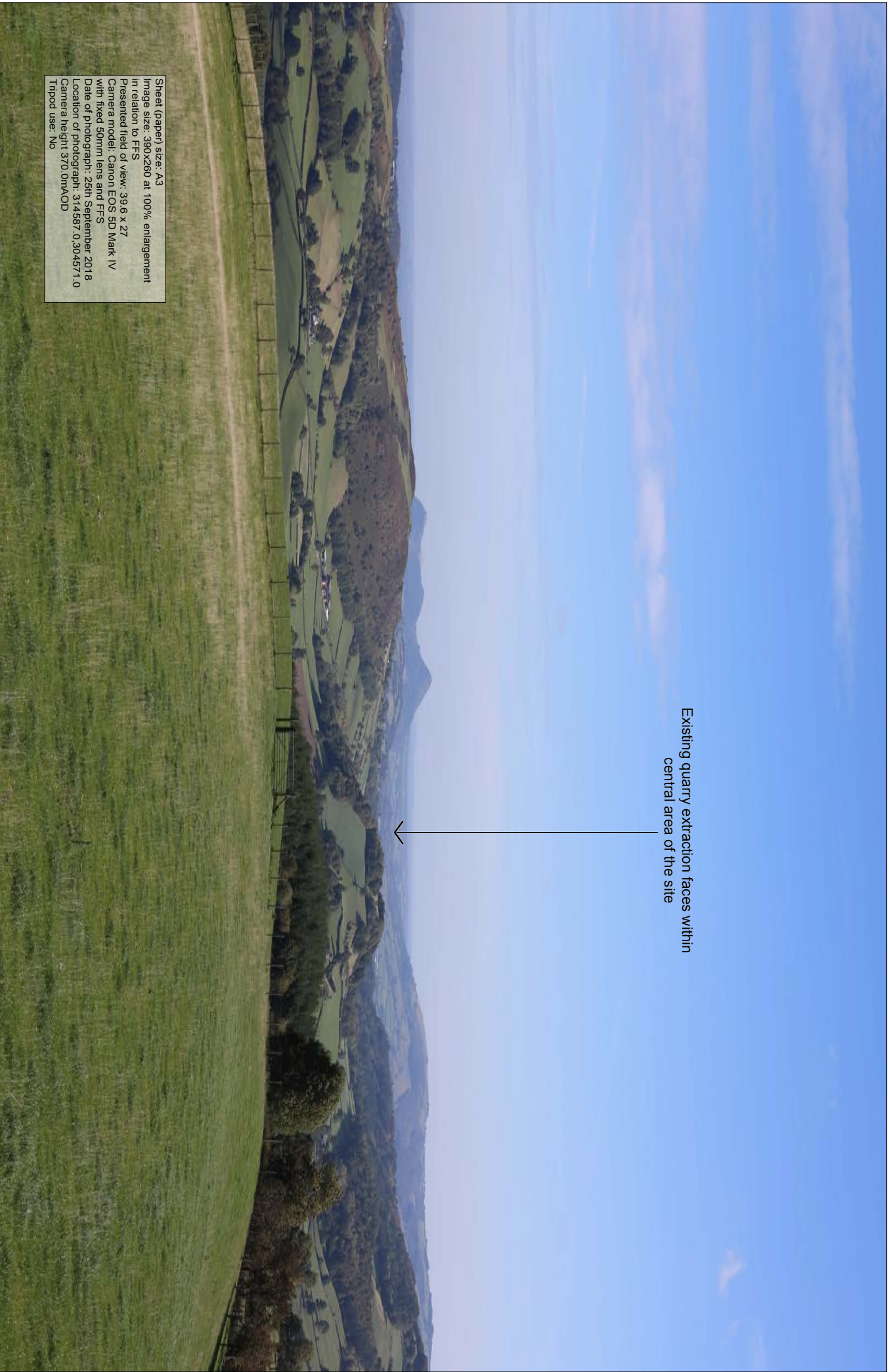
Proposed stack visible with ERF building hidden



Viewpoint 27: From public footpath between Y Brywydd and Castle Caereinion

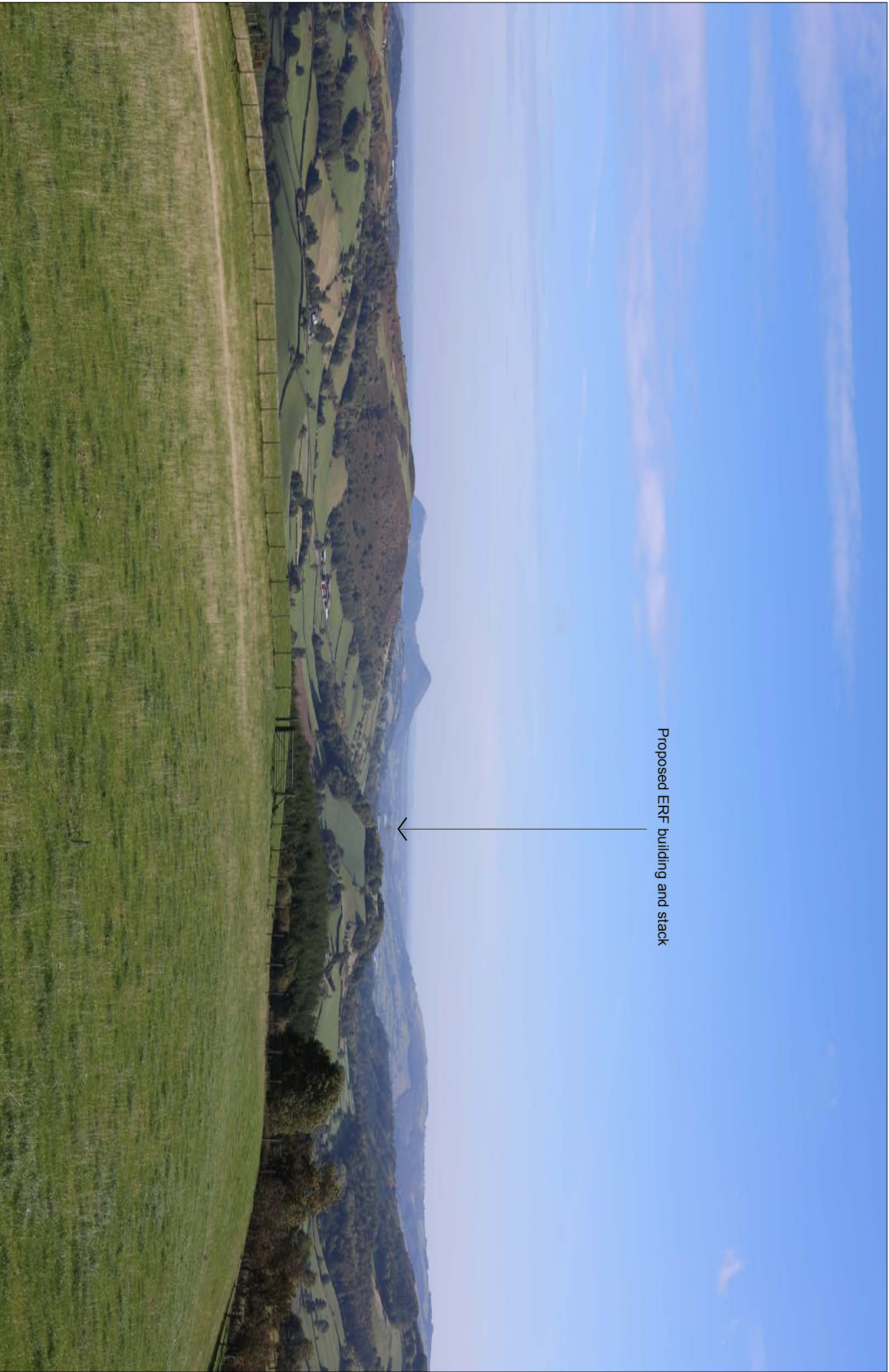
13.4km to the south west from the ERF. The photograph location is from a hill top location along the footpath

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

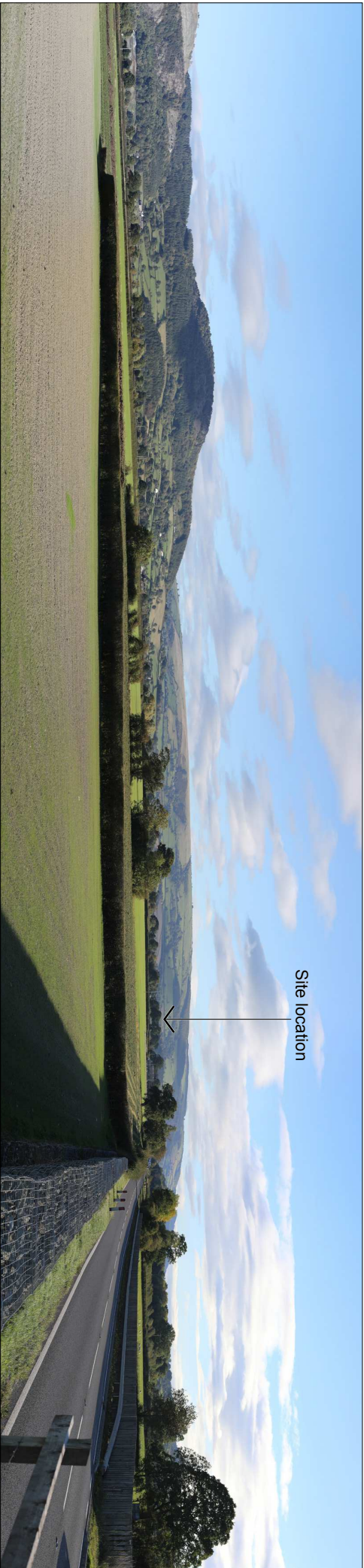


Existing quarry extraction faces within
central area of the site

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 25th September 2018
Location of photograph: 314587, 0.304571, 0
Camera height 370.0m AOD
Tripod use: No



Proposed ERF building and stack



Viewpoint 28: From A483 at Ardleen

5km to the north from the ERF. The photograph location is from the side of the highway and near to the road junction with Rhyd-essgyn Lane

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



Existing site area hidden behind
foreground hillside

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 26th September 2018
Location of photograph: 326079 9.315050.0
Camera height 65.0mAO
Tripod use: No



Proposed ERF building and stack



Viewpoint 29: From Castlehill Lane, Burgedin

5.7km to the north west from the ERF. The photograph location is from the a vantage point looking over the wall/hedgebank along the public highway

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

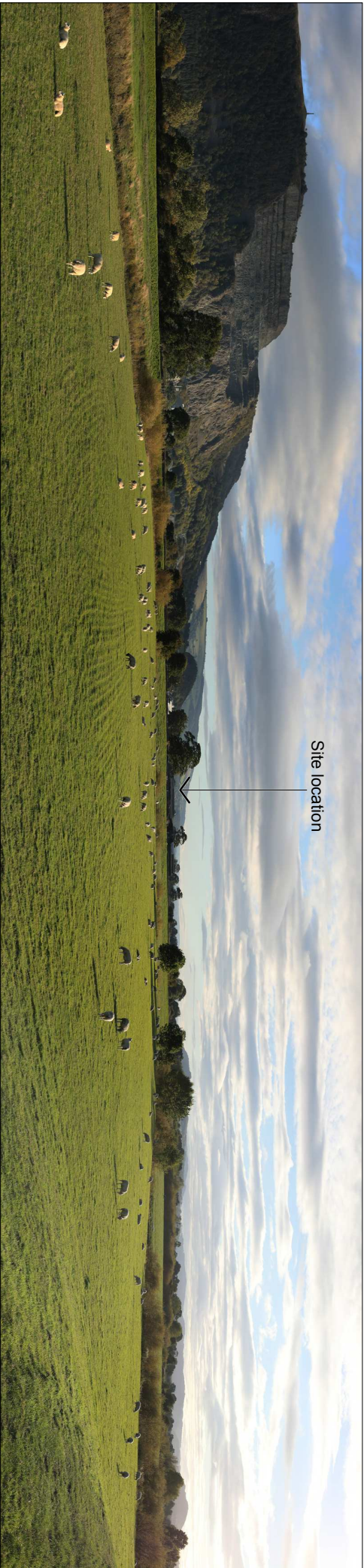
Existing site area hidden behind
foreground hillside



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 17th September 2018
Location of photograph: 323064, 5,314497, 6
Camera height 175.0m AOD
Tripod use: No

Proposed ERF building and stack





Viewpoint 30: From the Severn Way, east of Tredarwen

6.3km to the north east from the ERF. The photograph location is from the Severn Way (long distance footpath) which follows the flood defence embankment alongside the River Severn

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 26th September 2018
Location of photograph: 328687, 6,316125,7
Camera height 66.0mAO
Tripod use: No



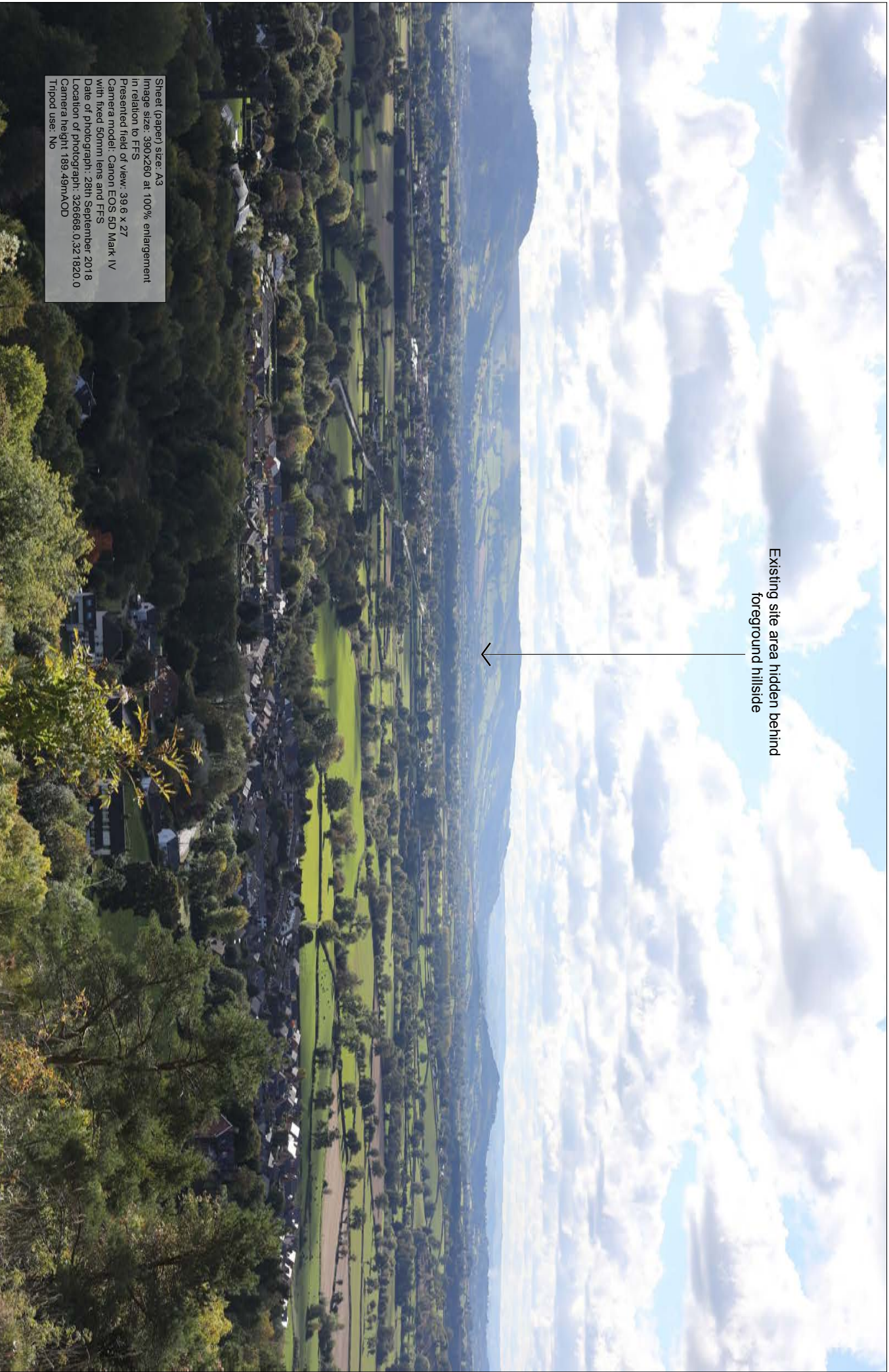
Proposed ERF building and stack



Viewpoint 31: From Llanymynech Hill

11.7km to the north from the ERF. The photograph location is from a vantage point along the footpath on the former quarry face and immediately adjacent to Llanymynech Golf Course

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 28th September 2018
Location of photograph: 326668 0,321820,0
Camera height 189.49mAOD
Tripod use: No



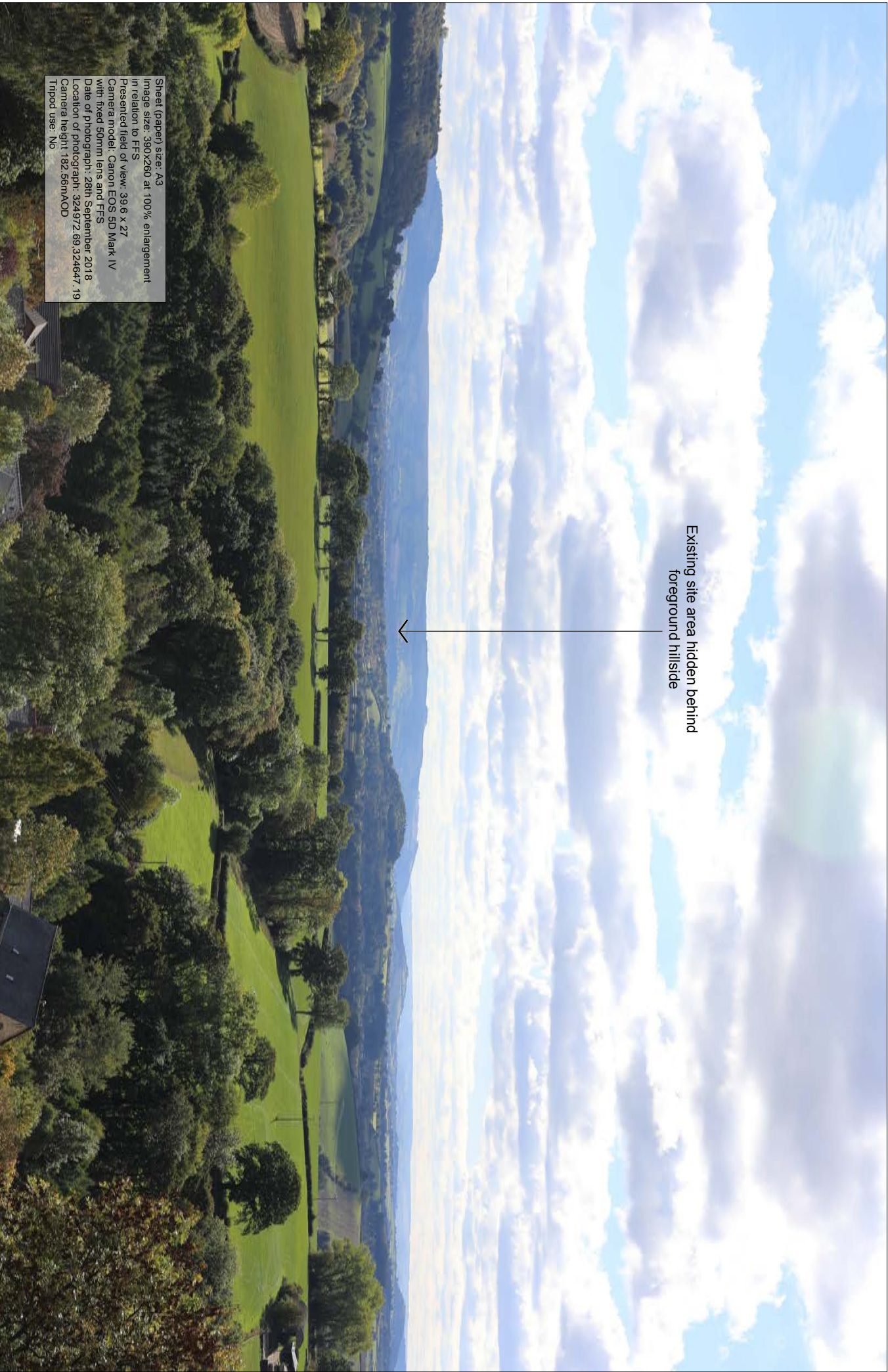
Proposed ERF building and stack



Viewpoint 32: From Quarry Lane and Offa's Dyke Path, Nantmawr

14.6km to the north from the ERF. The photograph location is from the public road, opposite residential properties and where the Offa's Dyke Path is located

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

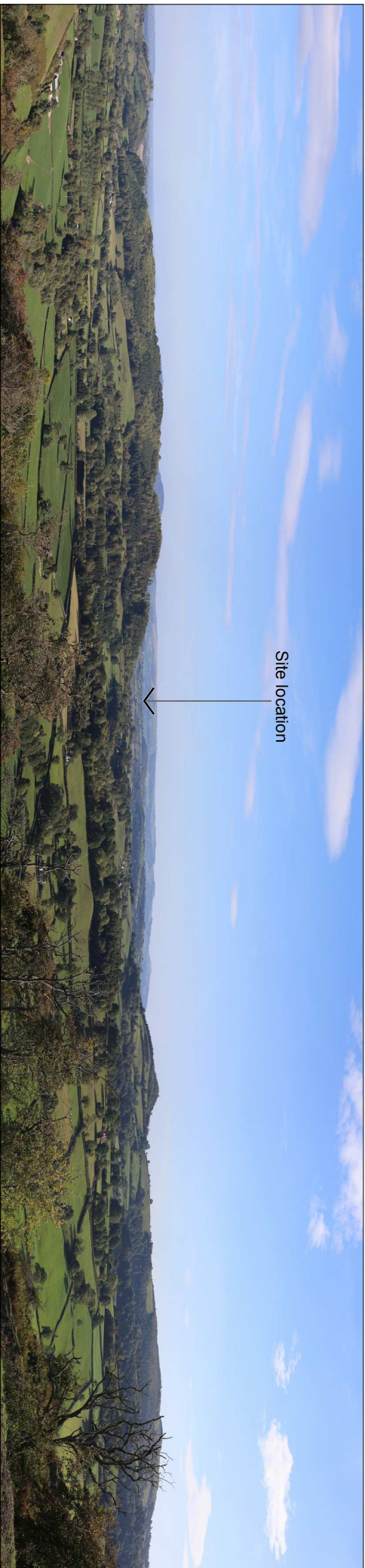


Existing site area hidden behind
foreground hillside

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 28th September 2018
Location of photograph: 324972, 69.324647, 19
Camera height: 182.56m AOD
Tripod use: No



Proposed ERF building and stack

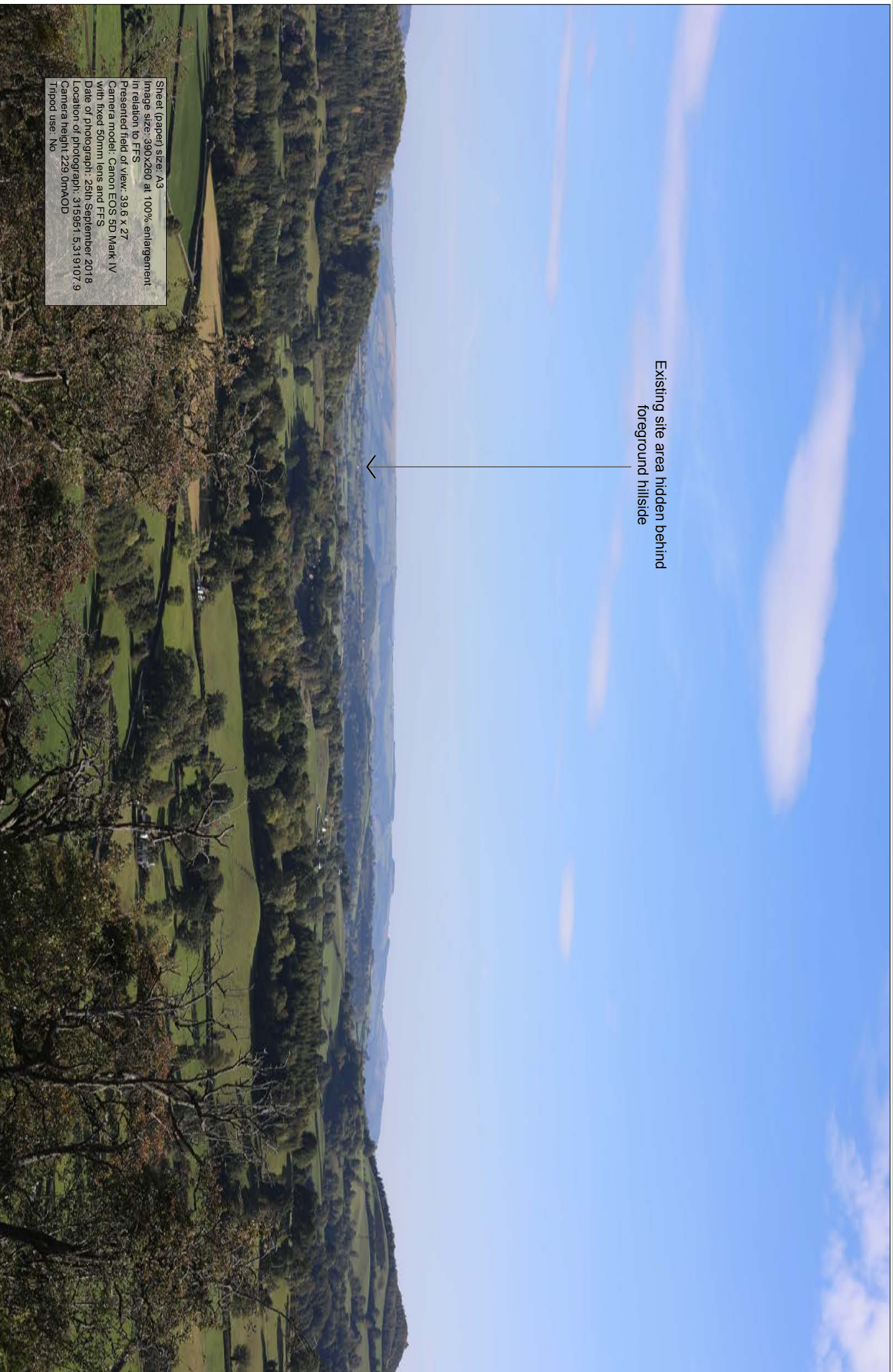


Viewpoint 33: From Green Hall Hill, Brynelltyn, Llanfyllin

14.1km to the north west from the ERF. The photograph location is from the footpath near the summit of Green Hall Hill

Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the panoramic photographs.

Existing site area hidden behind
foreground hillside



Sheet (paper) size: A3
Image size: 390x280 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 25th September 2018
Location of photograph: 315951.5, 319107.9
Camera height 229.0m AOD
Tripod use: No



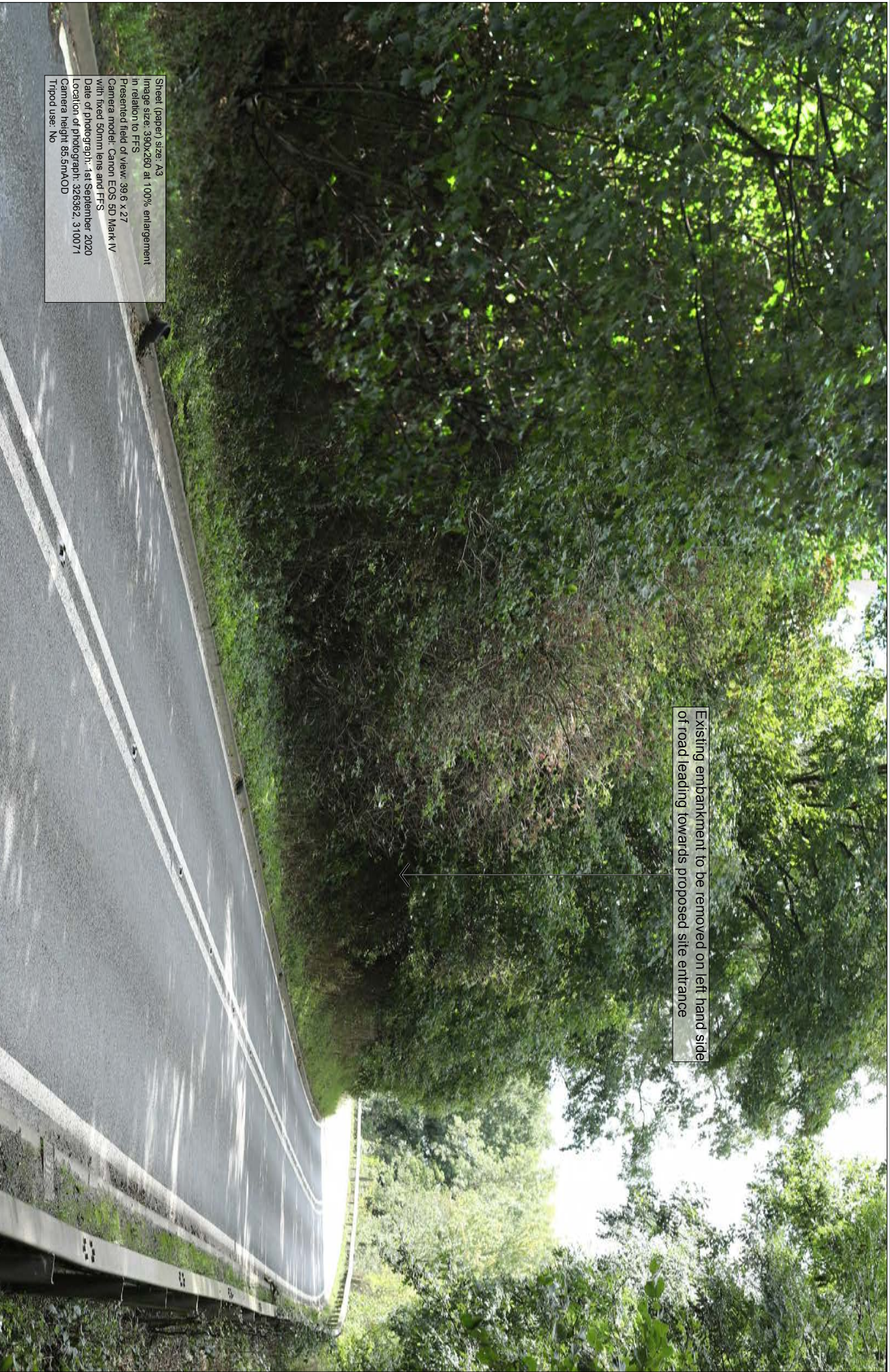
Proposed ERF building and stack



Approximate location for the proposed site entrance



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 1st September 2020
Location of photograph: 326239, 309886
Camera height 81mAOD
Tripod use: No



Existing embankment to be removed on left hand side of road leading towards proposed site entrance

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 1st September 2020
Location of photograph: 326362, 310071
Camera height 85.5mAOD
Tripod use: No

APPENDIX 1

LVIA Methodology



APPENDIX 1 LVIA METHODOLOGY

1.1. INTRODUCTION

- 1.1.1. This Appendix sets out the LVIA Methodology. A summary is provided in Section 2 of the LVIA.
- 1.1.2. The Methodology employed in this LVIA is specific in that it relates to the proposed Buttington Quarry Energy Recovery Facility, Welshpool, Powys (the Development).
- 1.1.3. Guidance and methodology for the undertaking of the LVIA has been sourced from (in date order):
- ◆ Guidelines for Landscape and Visual Impact Assessment (Third Edition), Landscape Institute and Institute of Environmental Management and Assessment (2013)¹;
 - ◆ An Approach to Landscape Character Assessment, Natural England (2014)²;
 - ◆ Visual Representation of Wind Farms, Guidance, Version 2.2, Scottish Natural Heritage (2017)³;
 - ◆ An Approach to Landscape Sensitivity Assessment – to Inform Spatial Planning and Land Management, Natural England (2019)⁴; and
 - ◆ Visual Representation of Development Proposals, Technical Guidance Note 06/19, Landscape Institute (2019)⁵.
- 1.1.4. Further to the above, consideration has been given to comments in the Scoping Direction together with those received from DCW and during the Pre-Application Consultation Process. Direction has been taken from LANDMAP including methodologies and guidance notes⁶, the Adopted Powys Local Development Plan 2011 – 2026 (April 2018), particularly with reference to Policy DM4 Landscape⁷ and supporting Supplementary Planning Guidance.
- 1.1.5. The Methodology is based on best practice guidance associated with undertaking LVIAs. Appendix 15 (Table 15A) includes a list of phrases commonly used in the LVIA process, although not all may appear in this report.

¹ Guidelines for Landscape and Visual Impact Assessment (Third Edition), Landscape Institute and Institute of Environmental Management and Assessment, 2013

² An Approach to Landscape Character Assessment, Natural England, October 2014

³ Visual Representation of Wind Farms, Guidance, Version 2.2, Scottish Natural Heritage, February 2017

⁴ An Approach to Landscape Sensitivity Assessment – to Inform Spatial Planning and Land Management, Natural England, June 2019

⁵ Visual Representation of Development Proposals, Technical Guidance Note 06/19, Landscape Institute, September 2019

⁶ Natural Resources Wales, <https://naturalresources.wales>, sourced July 2020

⁷ Powys Local Development Plan 2011 – 2026, 1/4/2011 to 31/3/2026, Written Statement, Powys County Council, Adopted April 2018



- 1.1.6. The purpose and approach of the LVIA is to establish the main impacts of the Development upon landscape character, landscape designations and identified visual receptors against a defined baseline situation. It then determines the consequences and what the nature of these effects are likely to be. It assesses effects beyond or different to the baseline situation (see Section 3 of the LVIA).
- 1.1.7. The LVIA considers and describes the main landscape and visual effects which are likely to arise from the Development and generally assumes that an impact could lead to a **beneficial**, **adverse** or **neutral** effect. The definition of impact terminology has been developed to ensure that, wherever possible, an objective assessment has been made and that the terminology used is appropriate to the Development and the current baseline situation.
- 1.1.8. In adherence with current industry guidance, the GLVIA Third Edition, a distinction is made between the 'impact' (the action being taken) and 'effect' (the change resulting from that action) that the Development might have upon the landscape and visual amenity.
- 1.1.9. Current guidelines advise that the assessment of a particular development should take full account of the landscape (character) impacts as well as the potential visual impacts. Although they are separate, it is difficult to isolate each category and so both are considered as part of the assessment process.
- 1.1.10. The assessment of landscape and visual impacts involves three steps:
- ◆ Determining the sensitivity of the landscape or viewer group (i.e. the receptor) to the type of change envisaged;
 - ◆ Predicting the magnitude of change that would take place in the landscape or view; and
 - ◆ Evaluating the significance of that change, taking into account the sensitivity of the affected receptor and the magnitude of change.
- 1.1.11. In this LVIA, the assessment considers landscape and visual effects resulting from the Development during the construction, operational and decommissioning phases. Cumulative effects, winter views from specific Viewpoint Locations and night time effects due to the proposed lighting scheme have been evaluated separately to the visual impact assessment. Magnitude of impact is dealt with on a landscape or visual basis and the overall consideration of the effects takes into account the period of time that the effect occurs.
- 1.1.12. A narrative approach is used to describe and assess the likely changes. Table 1G: Predicted Significance of Landscape/Visual Effects at the end of this Appendix presents the matrix employed as a guide for consistency of analysis for landscape and visual effects.



1.2. PRINCIPAL STUDY AREA

- 1.2.1. The principal study area is defined in this LVIA as the distance from the Development within which the landscape or visual effects might be deemed as being of potential significance and thus, relevant to the assessment process.
- 1.2.2. A preliminary study area of up to 20km was initially adopted with primarily assessable effects detected up to c.15km and key effects expected to be within 10km, given the nature of the Development.
- 1.2.3. In order to determine the principal study area, a ZTV has been identified using computer based analysis established on the potential visibility of the stack (purple shading) and the upper roof section of the ERF combined with the stack (blue shading). Figure L5: Zone of Theoretical Visibility (ZTV) Northern Area and Figure L6: Zone of Theoretical Visibility (ZTV) Southern Area show the ZTV which is addressed later in this Appendix.
- 1.2.4. The principal study area as defined by the ZTV is deemed to be appropriate to assess the baseline situation including the current landscape setting, landscape character and designations and within which the viewpoint locations have been identified. For robustness, consideration has been given to areas in close proximity which may have relevance to the LVIA.
- 1.2.5. Unless otherwise stated, direction and distance quoted in the text and shown on the accompanying Figures are from the proposed stack. For this LVIA, the immediate vicinity of the Site is within 500m, close range is from 500m to 3km and medium range from 3km to 6km. Long range is beyond 6km.
- 1.2.6. Site assessment and field work were conducted between 2016 and 2020 during both summer and winter months. The photographs used for the LVIA were taken in September and October 2018 and in July 2020. They are a fair representation of the current landscape setting. With regards to the proposed lighting scheme, the night time photographs were taken in September 2020 (Appendix 11) and the example photomontage winter views in February 2019 (Appendix 12).
- 1.2.7. The initial desk study was commenced in May 2018. It was reviewed in July 2020 and January 2021.

1.3. PLANNING POLICY

- 1.3.1. Planning policy is evaluated in Section 7 of the LVIA regarding landscape and visual matters with respect to the Development. At a national level, this includes Planning Policy Wales (Edition 10) (2018)¹ and Technical Advice Notes (TAN)². At a county level, the Adopted Powys Local Development Plan 2011 – 2026 (April 2018) and Supplementary Planning Guidance (SPG) are relevant.

¹ Planning Policy Wales (Edition 10), The Welsh Government, December 2018

² The Welsh Government, <https://gov.wales/>, sourced July 2020



1.4. LANDSCAPE DESIGNATIONS

- 1.4.1. Figure L2 shows the landscape designations within the principal study area in so far as they are relevant to the purpose of the LVIA and these are expanded upon in Section 3 of the LVIA. The hatched areas on Figure L2 denote the ZTV as an overlay for reference purposes.
- 1.4.2. Landscape and cultural heritage designations which contribute to a sense of place and/or signify an amenity value for receptors have been assessed. Consideration has been given to comments made in the Scoping Direction. The table below lists each designation (e.g. Scheduled Monument) and how it has been assessed in the LVIA.
- 1.4.3. Reference has been made to guidance published by The Welsh Government Historic Environment Service (CADW) regarding the assessment of effects on cultural heritage assets and their settings (e.g. Scheduled Monuments and Registered Parks and Gardens) in Section 5 of the LVIA.

Table 1A: Scoping Direction Referenced Designations

DESIGNATION	IDENTIFIED ON FIGURE L2	LVIA ASSESSMENT
Scheduled Monuments		
Offa's Dyke - Section extending 760m N from centre of Goppas Wood to Hope By-Road (Reference MG034)	No	Field work undertaken as part of the LVIA process determined that there would be restricted views from areas south of Hope Road. This section of Offa's Dyke is outwith the ZTV (Figure L2).
Offa's Dyke - South of School House (Reference MG224)	Yes	Landscape effects (Section 5, Table 7 of the LVIA).
Strata Marcella Abbey (Reference MG120)	Yes	Landscape effects (Section 5, Table 7 of the LVIA). Visual effects (Section 6, Viewpoint Location 21 From A483 near Pool Quay at Strata Marcella Abbey).
Breiddin Hill Camp (Reference MG021)	No	Applies to the summit of Breidden Hill and includes an obelisk generally known as Rodney's Pillar (Listed Building Grade II* Reference 7667). Visual effects (Section 6, Viewpoint Location 18 From Rodney's Pillar).
Crowther's Coppice Camp (Reference MG143)	Yes	Landscape effects (Section 5, Table 7 of the LVIA). Visual effects (Section 6, Viewpoint Location 19 From public footpath near Coppice East Farm (near Pool Quay)).
Register of Parks and Gardens of Special Historic Interest in Wales (CADW) (and essential settings)		
PGW (Po) 53 (POW) Maesfron (Grade II)	Yes	Landscape effects (Section 5, Table 7 of the LVIA). Visual effects (Section 6, Viewpoint Location 9 From A458 at Trewern).
PGW (Po) 35 (POW) Powis Castle Garden (Grade I)	Yes	Landscape effects (Section 5, Table 7 of the LVIA). Visual effects (Section 6, Viewpoint Location 24 From Powis Castle, Welshpool).
PGW (Po) 39 (POW) Trelydan Hall (Grade II)	No	Outwith the ZTV (i.e. principal study area) (c.3.5km north-west).



1.4.4. The following Viewpoint Locations also examine views from Scheduled Monuments:

- ◆ Viewpoint Location 17 From Middletown Hill is from the summit which includes the remains of a hillfort (Cefn y Castell - Reference MG007); and
- ◆ Viewpoint Location 31 From Llanymynech Hill (Llanymynech Hill Camp - Reference MG030).

1.5. LANDSCAPE CHARACTER ASSESSMENT

- 1.5.1. The combining facets of a landscape set one area apart from another, making its character unique to the people who both live in or visit the area. Recognition of this character variation requires an understanding of such influences that give different areas a unique 'sense of place'.
- 1.5.2. The GLVIA Third Edition notes that baseline studies and site reviews help to evaluate and identify the character, elements and features of the landscape as well as aesthetic and perceptual factors which contribute to it.
- 1.5.3. The value and perception of these characteristics is set out in the same source (GLVIA Third Edition, Box 5.1) and factors that assist in the understanding of rural landscapes may comprise the following: the condition of the landscape (landscape quality), scenic quality, rarity, representativeness, conservation interests, recreational value, perceptual aspects and associations. Effects then can be judged by reference to a partial or complete loss of elements and features, additional new elements and features and the combination of these on the overall character.
- 1.5.4. In rural areas, Landscape Character Assessment is identified in the GLVIA Third Edition as a key tool to understand the landscape and includes relevant descriptions of the physical influences, human activity and aesthetic qualities. In addition, published Landscape Character Assessment documents also need to be reviewed in light of their relevance to current characteristics, for instance due to their quality, date of publication or the task in hand.
- 1.5.5. The different levels of Landscape Character Assessment are addressed in Section 3 of the LVIA. In summary, these include at a national level, National Landscape Character Areas (NLCAs) classified by Natural Resources Wales and National Character Areas (NCAs) categorised by Natural England (Appendix 5).
- 1.5.6. Figure L1: Site Location and Landscape Character Classification (National Level) identifies the above and the Site is located on the western edge of the Shropshire Hills (outliers) NLCA No.18 (Appendix 4).
- 1.5.7. At a more detailed scale, information is provided by Natural Resources Wales through LANDMAP which classifies five Aspect layers:
- ◆ Geological Landscape (Survey Dates 2005);
 - ◆ Visual and Sensory (Survey Dates 2004 and monitoring 2015);
 - ◆ Landscape Habitats (Survey Dates 2005 and monitoring 2016);



◆ Historic Landscape (Survey Dates 2006 and monitoring 2017);
and

◆ Cultural Landscape Services (Survey Dates 2019).

- 1.5.8. Further to the above, regional scale Area Statements were issued in 2018.
- 1.5.9. The relevant Aspect layers at a Site level and the principal study area are addressed in the LVIA. Appendices 6 to 8 provide further information and extracts are included from the relevant sources. Tables which present summary data relevant to the LVIA have been prepared by B&A. Figure L3: LANDMAP Visual and Sensory Aspect Areas identifies the Visual and Sensory Aspect Areas within c.10km. The Site is located within the MNTGMVS370 Crewgreen to Forden Hill and Scarp Aspect Area. B&A has appraised the Site Aspect layers and the Visual and Sensory Aspect Areas in the principal study area in Section 5 of the LVIA.
- 1.5.10. The hatched areas on Figures L1 and L3 denote the ZTV as an overlay for reference purposes.
- 1.5.11. Also of relevance is the Powys Landscape Character Assessment Study (2008)¹ (Appendix 9) and The Shropshire Landscape Typology (2006) (Appendix 10).² The latter applies to the eastern and northern parts of the principal study area beyond c.2.6km and c.10km respectively.

1.6. ZONE OF THEORETICAL VISIBILITY

- 1.6.1. Figures L5 and L6 demonstrate the Zone of Theoretical Visibility (ZTV) which has been identified using computer based analysis established on the potential visibility of the stack (purple shading) and the upper roof section of the ERF combined with the stack (blue shading). This is based on a 70m high stack. Mitigation measures including the proposed native woodland planting illustrated by the Landscape Masterplan are not factored into the ZTV.
- 1.6.2. The ZTV is founded on landform and key areas of existing woodland beyond the site boundary, digitised from Ordnance Survey (OS) data and may suggest a wider area than exists in reality. It is a broad assessment tool that then enables a more detailed level of evaluation. It is particularly relevant to visual impact assessment but also enables an evaluation of landscape character effects.
- 1.6.3. Figure L7: Photograph Location Plan (Northern area) and Figure L8: Photograph Location Plan (Southern area) identify the 35 Viewpoint Locations. A detailed description of the ZTV and the selection of the Viewpoint Locations is given in Section 6 of the LVIA.

¹ Powys Landscape Character Assessment Study, John Campion Associates Ltd. (Commissioned by Powys County Council), 2008

² The Shropshire Landscape Typology, Shropshire Council, September 2006



1.7. PRESENTATION METHODS

Technical Guidance Note 06/19

- 1.7.1. The Landscape Institute issued Technical Guidance Note 06/19 in September 2019 and provides advice on site photography techniques and the production of visualisations. Appropriate Visualisation Types 2-4 apply to most LVIA's for planning applications involving an EIA. For this LVIA, Type 1 annotated viewpoint photographs have also been included.
- 1.7.2. Visual assessment and site photographic work commenced at the outset of the project and initial findings of the visual and landscape assessment were integral in the design process for the Development.
- 1.7.3. The photographs used for this LVIA were mostly taken in 2018 (i.e. prior to the Technical Guidance Note 06/19) during periods of fine weather with good visibility and they are a fair representation of the current landscape setting. They have been supplemented with additional photographs after this time to take account of recent changes and to include further views etc. However, the camera equipment and illustration methods generally comply with the advice.
- 1.7.4. The camera used is a Canon EOS 5D Mark IV with a fixed 50mm lens. For each Viewpoint Location, a panoramic view is provided which shows the existing context of the Site and demonstrates the nature of the scene. The photographs have been stitched together to form a panoramic view using Autopano software, based on a cylindrical projection and are presented in a A3 format photosheet, enabling a comfortable viewing distance. The panoramic views can be enlarged and viewed at A1 paper size if required. A single frame photograph enlargement (100% of the full frame sensor) intended for A3 format is provided for each Viewpoint Location. It should be noted these are in effect the full 390x260mm image (no distortion) but the 260mm dimension is cut by 8mm on the lower sector of the photograph to accommodate the paper layout. However, this does not alter the overall scale or accuracy of the monocular photographic image.
- 1.7.5. It is important to note that the photographs in the LVIA are provided as an '*aide memoire*'. A critical review of the visual assessment would need to be undertaken in the field at each viewpoint location to gain a better understanding of the Development in terms of the overall visual amenity. All photographs have been taken from easily accessible public locations. They have been selected to best illustrate the nature and representative context of the view towards the Site. Consequently, individual photographs are taken from gateways, natural breaks in hedgerows alongside roads or from highpoints along footpath routes.

Photomontage Views – Technical Process

- 1.7.6. A single frame photograph photomontage view is included for each Viewpoint Location showing the proposed ERF building and the stack. The photomontage views would be categorised as Type 3 in the Technical Guidance Note 06/19 and also comply with Type 4 in that they are 'verifiable' through the software process used for the photomontage (albeit not taken with a tripod). As such, they are presented with scale representation.



- 1.7.7. The photomontage views have been prepared for an accurate illustration by using software (3D Studio) that fixes the 3D model to the correct focal length of each photograph. Points of reference within the photograph were identified (Camera Match Points) and their survey co-ordinates established using available Site survey and OS data (e.g. corners of buildings, fence posts, hedgerows and surveyed quarry features).
- 1.7.8. A virtual camera (using the same lens as the real camera) was set up in 3DStudio Max to the correct photograph location coordinates and the camera match points were used to accurately “match” the virtual camera to the photograph. A 3D model of the Development located in the virtual matched view was then correctly rendered onto the photograph using the virtual camera. This rendered view was taken into Adobe Photoshop for photomontaging and splicing to form a panoramic view. Foreground features were re-established and elements to be removed were taken out of the photograph forming the final photomontage view. They are reviewed through a process of superimposing a wireframe of the existing terrain to ensure a good match to the current view.
- 1.7.9. Appendix 13 (Sheets 1 to 12) includes a selection of the photographs used for this LVIA presented as wireframe images and have been prepared through discussions with the Powys County Council landscape consultant. They have been used as a means to explain and set out the process to achieve a verifiable view.
- 1.7.10. Six Viewpoint Locations within the immediate vicinity or close range demonstrate the wireframes:
- ◆ Viewpoint Location 2 From Heldre Lane;
 - ◆ Viewpoint Location 4 From Heldre Lane at Upper Heldre;
 - ◆ Viewpoint Location 6 From public footpath on Heldre Hill;
 - ◆ Viewpoint Location 8 From A458 at Cefn;
 - ◆ Viewpoint Location 19 From public footpath near Coppice East Farm (near Pool Quay); and
 - ◆ Viewpoint Location 20 From A483 at Pool Quay.
- 1.7.11. The existing full frame photograph is illustrated at A3 and is depicted with a wireframe ‘overlay’ of the existing landform and also the proposed landform. In both cases, the proposed built form of the ERF is illustrated in a grey colour to demonstrate the context of the visual elements as illustrated in the final photomontage image.
- 1.7.12. It should be noted that the wireframes illustrate the entire landform data in in the ground model and thus, may illustrate hidden faces or features not directly seen in the context of the photograph. Nevertheless, they demonstrate the image scaling and accuracy of the final illustrated photomontage. Therefore, each photomontage view is intended to assist in the understanding of the changes that will occur to the existing visual amenity due to the Development.



Photomontage Views - Illustrated Plume

- 1.7.13. Under certain circumstances caused by specific weather conditions, there is potential for a visible plume to be produced from the stack. The average calculated visible plume has been illustrated in the photomontage views using the results of the air dispersion modelling data. The steps undertaken are summarised below and further details are provided in ECL report Technical Appendix 6.1 of the ES (ECL Report Reference ECL.001.01.02/ADM, November 2020):
- ◆ **Step 1:** The plume length is calculated by running the plume dispersion model over a 5 year period using hourly sequential meteorological data to establish the distance at which the plume first becomes visible and its length;
 - ◆ **Step 2:** Calculate the average length of the visible plume over each meteorological year. In this case, from 31m to 55m, with numerical weather prediction data from 2019 and surface heat flux and boundary layer calculations turned off;
 - ◆ **Step 3:** The meteorological line which gave the plume visibility length closest to the average was modelled in isolation. The plume was 54.85m long on the 3 December 2019 at 11.00am. This model allows the prediction of the plume spread and the height of the plume centreline with distance from the stack; and
 - ◆ **Step 4:** The vertical spread of the plume can be calculated. Visibility criteria is determined based on the liquid content of the plume and the opacity is based on the liquid content of the plume at a given point (expressed as a percentage of the maximum liquid content of the plume).
- 1.7.14. The visible plume is shown on each photomontage is based on the above criteria, irrespective of the date or time of the photograph taken.
- 1.7.15. To understand the maximum calculated visible plume, Appendix 14 illustrates a single photomontage view from Viewpoint 11 from Garreg Bank (upper) Trewern. The photograph was taken on the 27 February 2019 and thus, closely resembles the projected timing of the maximum visible plume based on data from 2 March 2018 at 5pm. See Section 8 of Technical Appendix 6.1 of the ES (ECL Report Reference ECL.001.01.02/ADM, November 2020).
- 1.7.16. Plume visibility is considered separately in Section 6 of the LVIA.

Photomontage Views - Illustrated Woodland Planting

- 1.7.17. With regards to the photomontage views, proposed native woodland planting is shown in summer after approximately 10 years when trees will be c.6m to 8m high. This is for illustrative purposes only and the visual effects described in Section 6 of the LVIA during the operation phase are based on the mitigation measures provided by the screen bunds and not the added benefit of new native woodland planting.
- 1.7.18. In some of the close range views, both the wooded bund and the level of the proposed topographic form of the bund is shown to enable a balanced evaluation of the maximum effects. Clearly, there will be long term benefits due to the woodland planting which has the potential to result in a gradual but positive change. This is reflected in the decommissioning phase.



- 1.7.19. The LVIA has considered the proposed lighting scheme for the Development (Appendix 11) and a description is provided in Section 6 of the LVIA from selected Viewpoint Locations. Further to the GLVIA Third Edition and Technical Guidance Note 06/19, reference has also been made to Guidance Note 01/20 issued by the Institute of Lighting Professionals in 2020.¹

1.8. LANDSCAPE CHARACTER EFFECTS

- 1.8.1. The assessment of landscape character effects describes the key characteristics of the landscape and the likely nature and scale of changes to landscape elements and characteristics; and the consequential effect on the landscape character. It considers effects relating to the Development during construction, operation and decommissioning.
- 1.8.2. Sensitivity of the landscape helps to determine how development of a particular site may lead to a high or low change in the overall characteristics. Sensitivity may be **High**, **Medium** or **Low**, with two further categories for exceptional situations of **Very High** or **Very Low** and is summarised in Table 1B.

Table 1B: Landscape (Sensitivity)

SENSITIVITY	DESCRIPTION
Very High	Where key characteristics, elements and associated uses are very vulnerable to change and cannot absorb development without significant alteration to the character itself. Thresholds for significant change are very low. This would apply to landscapes of designated value such as National Parks and where the principal management objective is to conserve existing character.
High	Where the key characteristics, elements and associated uses are vulnerable to change and/or enhancement and where development can only be absorbed in limited situations. The thresholds for significant change are low.
Medium	Where the key characteristics, elements and associated uses of the landscape are susceptible to change but have the ability to absorb development in some situations. Thresholds for significant change are intermediate.
Low	Where key characteristics, elements and associated uses are resilient to change and can absorb development in many situations without significant character change.
Very Low	Where the key characteristics, elements and associated uses are robust and are able to accommodate development without significant character change. This would apply to landscapes undergoing regeneration or with management objectives focused on landscape change.

- 1.8.3. The magnitude of impact relates to the scale of the changes in terms of the effects upon the landscape character of the Site (direct effects) and also the surrounding environs (indirect effects). Indirect effects on landscape character are assessed where the Development is visible in the principal study area (Figures L5 and L6).
- 1.8.4. The magnitude of impact applied ranges from **Very Large** to **Negligible** or **No Impact** and is defined in Table 1C.

¹ Guidance Note 01/20, Guidance notes for the reduction of obtrusive light, Institute of Lighting Professionals, 2020



Table 1C: Landscape (Magnitude of Impact)

MAGNITUDE	DESCRIPTION
Very Large	Where the development will cause large-scale changes many to important landscape characteristics.
Large	Where the development will cause some large-scale changes to several landscape characteristics.
Medium to Large	Where the development will cause some notable changes to several landscape characteristics.
Medium	Where the development will cause changes to several landscape characteristics.
Small	Where the development will cause small-scale changes to a limited number of landscape characteristics.
Very Small	Where the development will cause very small-scale changes to a limited number of landscape characteristics.
Negligible	Where the development will cause little or no appreciable change.
No Impact	No perceptible change to the landscape character due to the development.

- 1.8.5. Consequently, a combination of the sensitivity of the landscape and the magnitude of the impact determines the significance of effect.
- 1.8.6. In line with the GLVIA Third Edition, final conclusions regarding the significance of effect specifically concern the development in question. Generally, a more significant effect would apply to the permanent loss of mature elements. A less significant effect involves the loss of uniform and homogenous elements and features or where there is a more degraded character and less associated value. This is judged against the current baseline situation presented in Section 3 of the LVIA.

1.9. VISUAL EFFECTS

- 1.9.1. The assessment of significance of visual effects is approached in a similar manner to that previously described for landscape character.
- 1.9.2. Viewpoint Locations are chosen to show the context of specific places where the Development might be most visible and in some cases, representative receptor sensitivity. It is recognised that sensitivity may vary on a personal basis as will receptor activity. Nevertheless, the Viewpoint Locations are used to provide an objective assessment of the primary receptor sensitivity. The current scene is described and a narrative provided of the changes relating to the Development during construction, operation and decommissioning.
- 1.9.3. The sensitivity of the viewer is defined according to the type of receptor such as residents, road users and footpath users etc. and ranges from **Very High** to **Very Low** and is summarised in Table 1D. Static views can typically include locations from residential areas and sequential views refer to those along roads and footpaths. The type of view is specified for each Viewpoint Location.



Table 1D: Visual (Sensitivity)

SENSITIVITY	DESCRIPTION
Very High	Visitors to nationally advertised attractions (e.g. a National Park) where visual amenity is very important to its enjoyment.
High	From residential properties (ground floor locations/gardens), an established viewing point, or recognised public location for which the sensitivity of visual amenity is noted as being of a higher rating. Footpath users on National Trails.
Medium	Footpath users on long distance footpaths, on the general footpath network (footpaths, bridleways and byways) and walkers (general recreation). Residential locations including from upper floor windows and general views from residential properties not associated with a High sensitivity.
Low	Road users on the general network including 'A' class roads, minor roads and lanes. It also includes a place of work or recreation facilities (e.g. golf course) as the action takes place with less reference to external influences.
Very Low	People travelling along direct fast transport routes where context and view changes rapidly (e.g. motorway, railway).

- 1.9.4. The magnitude of the visibility is rated from **Very Large** to **Negligible** or **No Impact** and is defined in Table 1E.

Table 1E: Visual (Magnitude of Impact)

MAGNITUDE	DESCRIPTION
Very Large	Where new or additional elements are introduced and the development is wholly dominant and intrusive within the context of the available view.
Large	Where the development would introduce new or additional elements which would form a significant and immediately apparent aspect of the scene and would affect the overall impression of the view.
Medium to Large	Where the development would introduce new or additional elements which will be noticeable in the scene and would affect the overall impression of the view.
Medium	Where the development would introduce new or additional elements and forms a recognisable change to the amenity but is not intrusive within the overall scene.
Small	Where the development would introduce new or additional elements but would constitute only a minor component of the wider view which the casual observer could miss or where awareness does not affect the overall quality of the scene.
Very Small	Where only a very small part of the development is discernible or in cases where the effects are scarcely appreciated, for example, due to the angle of view or distance involved.
Negligible	Where the development will not materially alter the existing view.
No Impact	No perceptible change to the existing view due to the development.

- 1.9.5. The significance of effect is then determined by comparing the magnitude and sensitivity in a consistent manner.



1.10. NATURE OF EFFECT

- 1.10.1. It is not the assumption of this LVIA that all change is **adverse**. Rather, it seeks to give objective consideration from the outset that the nature of effect can be **beneficial** or **adverse** and in some cases **neutral**.
- 1.10.2. Current guidance (GLVIA Third Edition) notes that *'It is also possible for effects to be neutral in their consequences for the landscape. An informed professional judgement should be made about this and the criteria used in reaching the judgement should be clearly stated. They might include, but should not be restricted to:*
- ◆ *The degree to which the proposal fits with existing character; and*
 - ◆ *The contribution to the landscape that the development may make in its own right, usually by virtue of good design, even if it is in contrast to existing character'.* (paragraph 5.37)
- 1.10.3. This LVIA gives objective consideration to both landscape and visual effects with regard to the context, visual composition and the way in which the view is experienced.
- 1.10.4. An **adverse** nature of effect may occur where there is an increase of visibility in terms of the Site or changes to character of a negative or intrusive kind. This may ensue regarding views of earthworks and due to screen bund formation in the construction period. Crane movements and other aspects (e.g. building construction, scaffolding and ground works) associated with the building of the ERF could result in **adverse** effects (e.g. at the skyline).
- 1.10.5. During the operation period, **adverse** effects may occur with respect to potential views of building façades or rooflines of the ERF building and/or stack. This may arise when built form is seen against the skyline rather than a backdrop of hills or rising ground. When the stack is seen in isolation (i.e. without context to the overall Development), this may result in an **adverse** rather than **neutral** effect. As stated, during the operation phase, no allowance is being made for the additional screening benefits offered by the proposed native woodland planting illustrated by the Landscape Masterplan. Consideration is given to the screen bunds only.
- 1.10.6. This Assessment recognises that if part of the Development can be assimilated into the landscape or is not visually overbearing and intrusive, it will not necessarily result in an **adverse** effect. In addition, a change is not necessarily an **adverse** effect so long as the land use and appearance are broadly in line with similar uses.
- 1.10.7. **Neutral** effects may arise when the proposals are unlikely to be identified immediately in terms of adversely affecting the characteristics or where they do not constitute an intrusive element in the overall visual amenity; this may apply when views are partially screened or at distance.



- 1.10.8. During decommissioning, cranes will remove taller elements such as the ERF building and stack which may lead to **adverse** visual effects. However, these will be temporary and/or generally of a short duration. The screen bunds will provide some screening of the demolition/removal of buildings and vehicle movements during ground restoration. Overall, **adverse** visual effects in this phase will primarily relate to visible crane movements and site activity where in view.
- 1.10.9. Proposed native woodland planting shown on the Landscape Masterplan will remain in perpetuity and will offer long term enhancement and mitigation for future employment uses at the Site. A **neutral** or **beneficial** nature of effect may occur as it matures. It is more likely to be **beneficial** at a close range with a **neutral** effect occurring at mid and long range.
- 1.10.10. Winter and summer views have been considered separately in Section 6 of the LVIA for selected Viewpoint Locations in the immediate vicinity and at a close range. Appendix 12 includes the example photomontage winter views (Sheets 1 to 16).

1.11. LANDSCAPE CAPACITY

- 1.11.1. Landscape capacity relates to landscape character sensitivity and value and is also informed by the effects upon visual amenity. It provides an understanding of whether the predicted effects upon the character would be in keeping or not with the current landscape setting. It constitutes an all-encompassing consideration of whether a landscape might be capable of development whilst the essential qualities of the wider landscape character remain unchanged.
- 1.11.2. In this instance, a three-point scale has been adopted after considering the above:
- ◆ **Low** capacity: a landscape or visual amenity which cannot accommodate change;
 - ◆ **Medium** capacity: a landscape or visual amenity which could accommodate change in certain circumstances: and
 - ◆ **High** capacity: a landscape or visual amenity which can accommodate change.

1.12. RESIDUAL EFFECTS

- 1.12.1. B&A has designed the Landscape Masterplan which illustrates the mitigation measures (Appendix 2). During the construction phase, it is assumed that it will offer a visual effect whilst it is ongoing (e.g. screen bunds and planting). Once established, the assumption is that visual effects will decrease and residual effects will relate more to mitigating qualities for landscape character and visual matters as assessed in Sections 5 and 6 of the LVIA respectively.



1.13. SIGNIFICANCE OF EFFECT

- 1.13.1. The significance of a landscape or visual effect is a function of the sensitivity of the affected landscape or visual receptors, the magnitude of change that they will experience and the nature of the effect. The degree of significance of landscape and visual effects are unique to a particular proposal. Tables 1F and 1G demonstrate the principles applied to assess the significance. Although where exceptions occur, professional judgement and assumptions are applied. For example, where significance falls between two categories.
- 1.13.2. In instances where a **Major** or a **Moderate to Major** significance of effect occurs, then the effect is likely to be considered significant (i.e. an impact that is likely to be a key material factor in the decision-making process). Where a **Moderate (adverse)** significance of effect has occurred then this has been reviewed whether it would constitute a significant effect.

Table 1F: Significance of Effect

SIGNIFICANCE OF EFFECT	LANDSCAPE	VISUAL
Negligible	Virtually no effect on existing landscape character and quality.	The development results in a virtually imperceptible change in the view and has no affect upon the existing visual amenity.
Minor	Some effects on existing landscape for which the development can be readily accommodated without affecting the character.	Where the development may have a slight affect upon the view but where the change is not prominent.
Moderate	Larger scale changes affecting the landscape to a noticeable degree without a significant resultant change in the character.	Where the development will be clearly visible and results in some changes to the view, but the main elements of the baseline visual context remain.
Major	Landscape character and quality is affected to a large degree, such that the development is a substantive element, creating a character associated with the development.	The development results in changes that largely affect the view, or where the baseline visual context alters, such that the development is one of the principal visual elements unmistakably or easily seen.
Substantial	Landscape character and quality is affected to a substantial degree, such that the development is the principal and substantive element dominating the essence of the landscape character and affecting the balance of the landscape.	Substantive alterations to the amenity of the view, where the development becomes the dominant feature and commands or controls that particular view.



Table 1G: Predicted Significance of Landscape/Visual Effects

SENSITIVITY ►	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH
▼ MAGNITUDE					
No Impact	None	None	None	None	None
Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
Very Small	Negligible	Negligible	Minor	Minor	Minor - Moderate
Small	Negligible	Minor	Minor-Moderate	Moderate	Moderate
Medium	Minor	Minor-Moderate	Moderate	Moderate to Major	Major
Medium to Large	Minor-Moderate	Moderate	Moderate	Moderate to Major	Major
Large	Minor-Moderate	Moderate	Moderate to Major	Major	Major to substantial
Very Large	Moderate	Moderate	Major	Major to substantial	Substantial

1.14. CUMULATIVE EFFECTS

- 1.14.1. Cumulative landscape and visual effects have been considered in Sections 4 and 5 of the LVIA respectively. Guidance has been taken from the GLVIA Third Edition regarding cumulative landscape effects (paragraph 7.26) and visual effects (paragraph 7.38).
- 1.14.2. The LVIA has taken into account large scale commercial development such as warehouses along the main road network and on the edge of settlements:
- ◆ **Offa's Dyke Business Park** adjacent to the B4388 on the edge of Buttington (c.2.2km south-west);
 - ◆ **Buttington Cross Enterprise Park and the Welshpool Livestock Sales building** adjacent to the A458 and A483 roundabout on the northern edge of Welshpool (c.2.6km south-west); and
 - ◆ **Hanfaes Lane Industrial Estate** (c.4.1km south-west) and **Severn Farm Industrial Estate** (c.5km south-west) on the eastern edge of Welshpool.

APPENDIX 2

Drawing BT1180-D2: Landscape Masterplan



Based upon the Ordnance Survey map with the permission of the controller of Her Majesty's Stationery Office. © Crown Copyright reserved. Licence number AR00019026.

Indicative extent of quarry development extending in accordance with Planning Consent No 379 dated 28/1948 and subsequent reviews and amendments

Access and highway improvements to A458 (Westpool Road) to be undertaken under existing Planning Consent 310000N

Surface water attenuation pond

Engineered retaining wall using geotextile wrapping techniques

Route of definitive public footpath

Area of geological SSSI, retained and unaffected by Proposed Scheme

Lay-down area during construction period and allocated for future employment based uses within the 2018 Powys Local Development Plan

Proposed remnant quarry face and bench

Locations for amphibian wetland and peripheral habitat creation

Buildings and yard area used for logistic industry

For illustrative Cross Sections see Drawing BT1180-D11

Key:

- The Planning Application boundary (the Application Site)
- The Energy Recovery Facility (ERF)
- Background mapped data beyond the Application Site, including existing vegetation, road patterns, contour information and settlement
- Areas within Bultington Quarry used for logistics and related industrial purposes
- Boundary of earthworks and proposed contours indicating alteration of landform related to the ERF
- Contours associated with existing quarry access and ongoing extractive works (indicative extent)
- General arrangement of the ERF building and adjacent areas
- Areas of proposed native broadleaved woodland planting
- Areas restored to Open Mosaic Habitat
- Areas of species-rich neutral grassland
- Proposed access route to the ERF (with adjacent footpath)
- Option access route to the ERF



Project:
BULTINGTON QUARRY
Proposed Energy Recovery Facility (ERF)

Title:
Landscape Masterplan

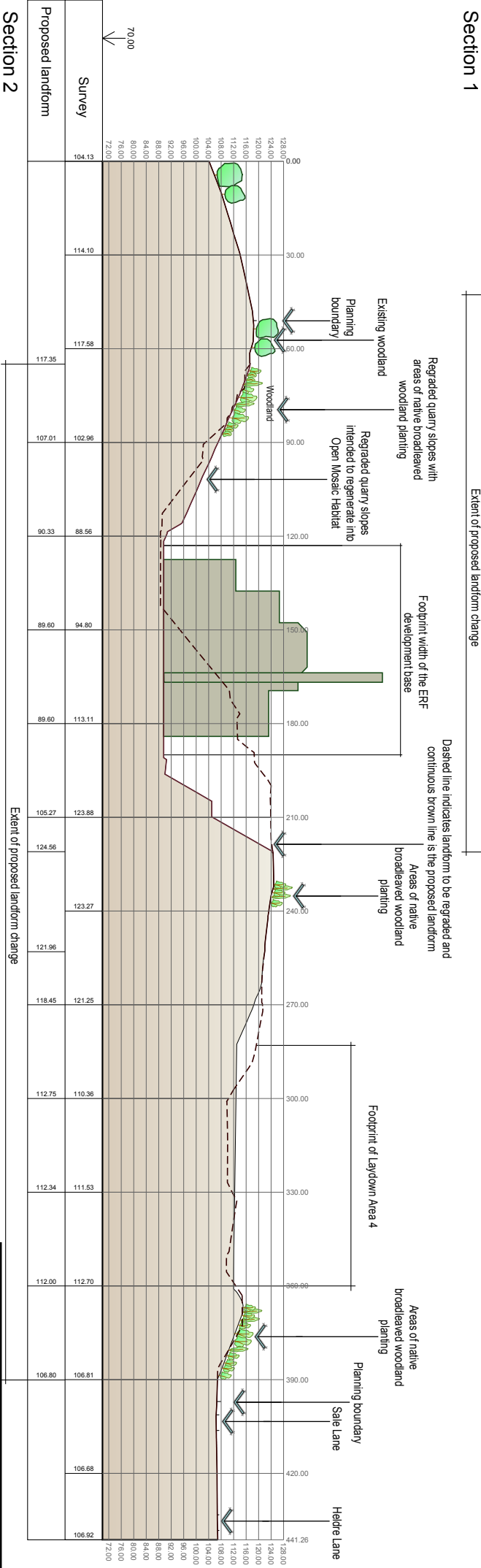
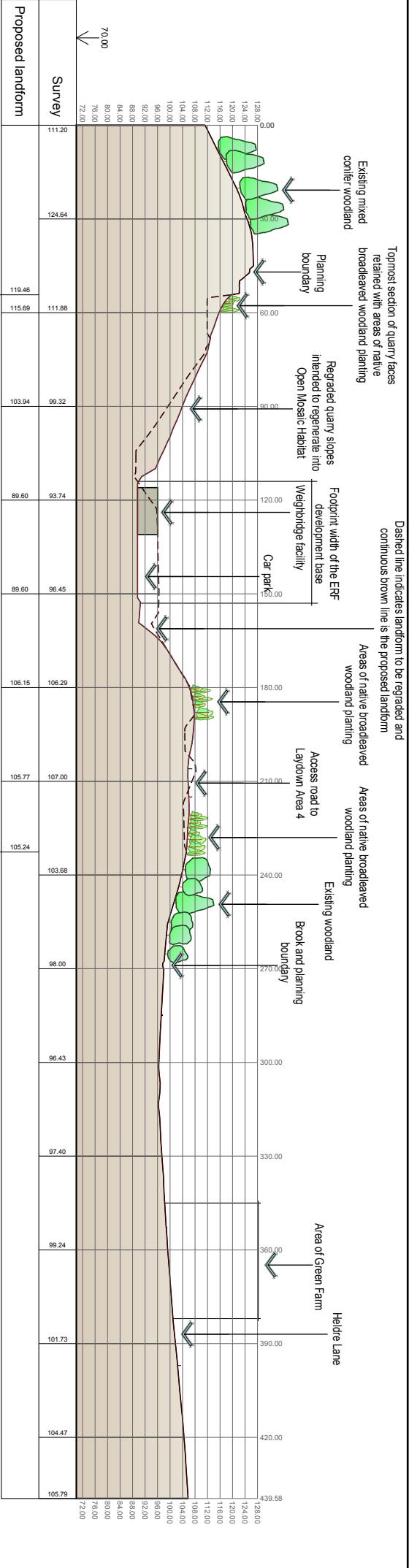
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Project:	BULTINGTON QUARRY			
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Project Ref:	BT1180-D2	Scale:	1:2500	Sheet: A3
Project Ref:	BT1180-D2	Scale:	1:2500	Sheet: A3



BT1180-D2

APPENDIX 3

Illustrative Cross Sections (1 to 6)



DRAWING NOTES

See Drawing BT1180-D2 for cross section locations

Client: **BROAD ENERGY**

Project: **BUTTINGTON QUARRY**

Proposed Energy Recovery Facility (ERF)

Title: **Illustrative Cross Sections 1 and 2**

Drawn: **BT1180-D11**

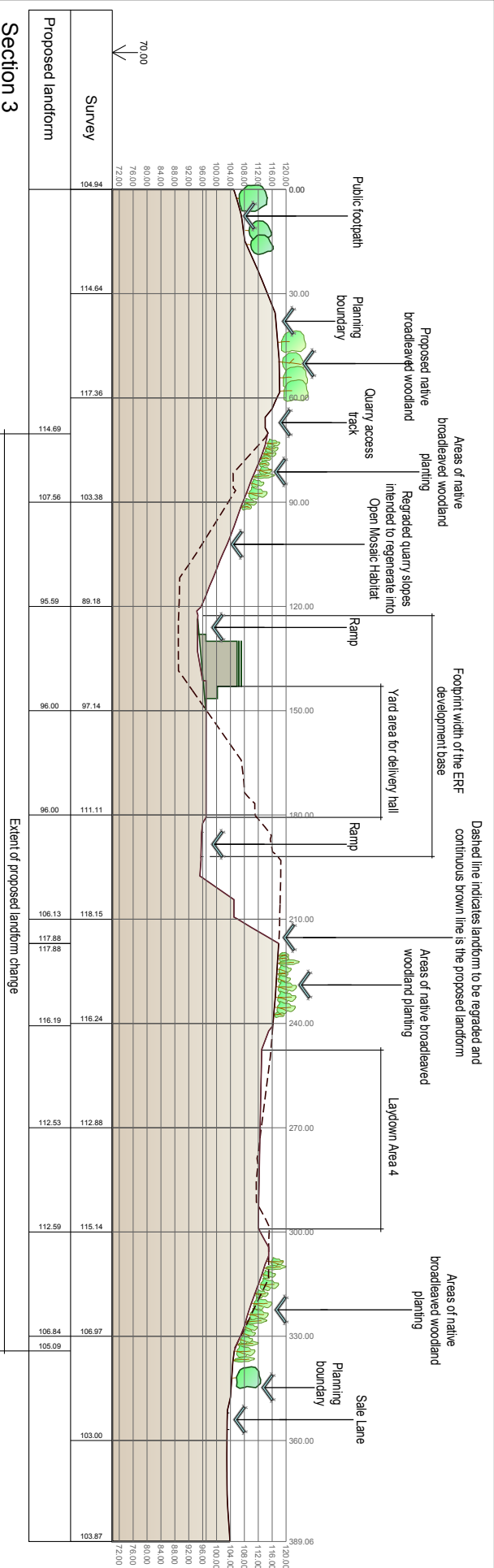
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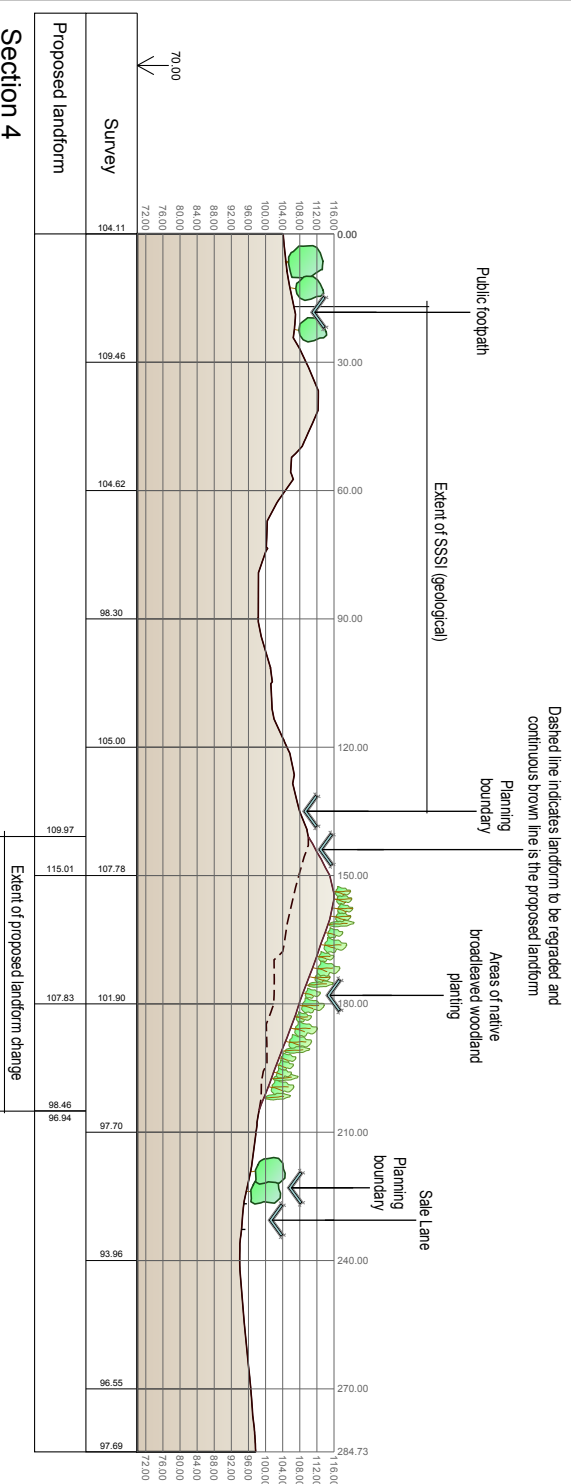
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Drawn Date: October 2020

Drawn By: **BT1180-D11**




Section 3



Section 4

DRAWING NOTES
See Drawing BT1180-D2 for cross section locations



BROAD
ENERGY

Client:

Project:


BUTTINGTON QUARRY


Proposed Energy Recovery Facility (ERF)

Illustrative Cross Sections 3 and 4

1760

Call Ref	Version	Drawn by	Proj. no.	A3	Drawing Date
BT1180-D11	1	RB	Scale:	Section 1:1250	October 2020


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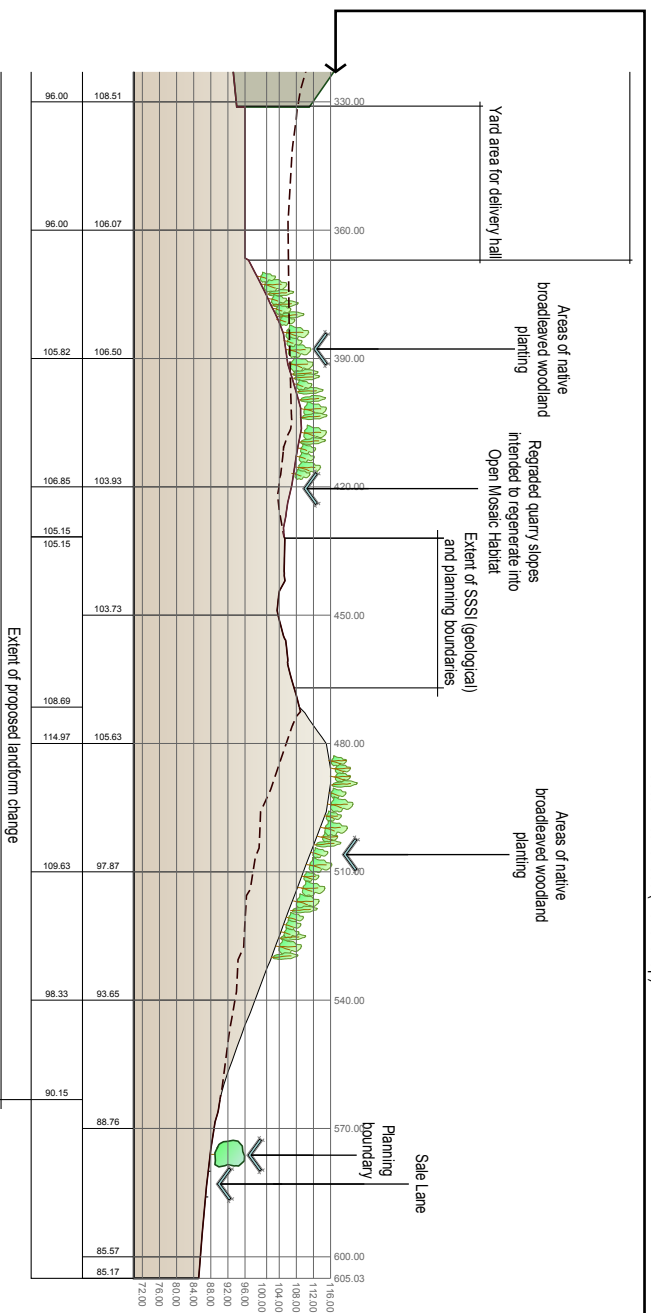
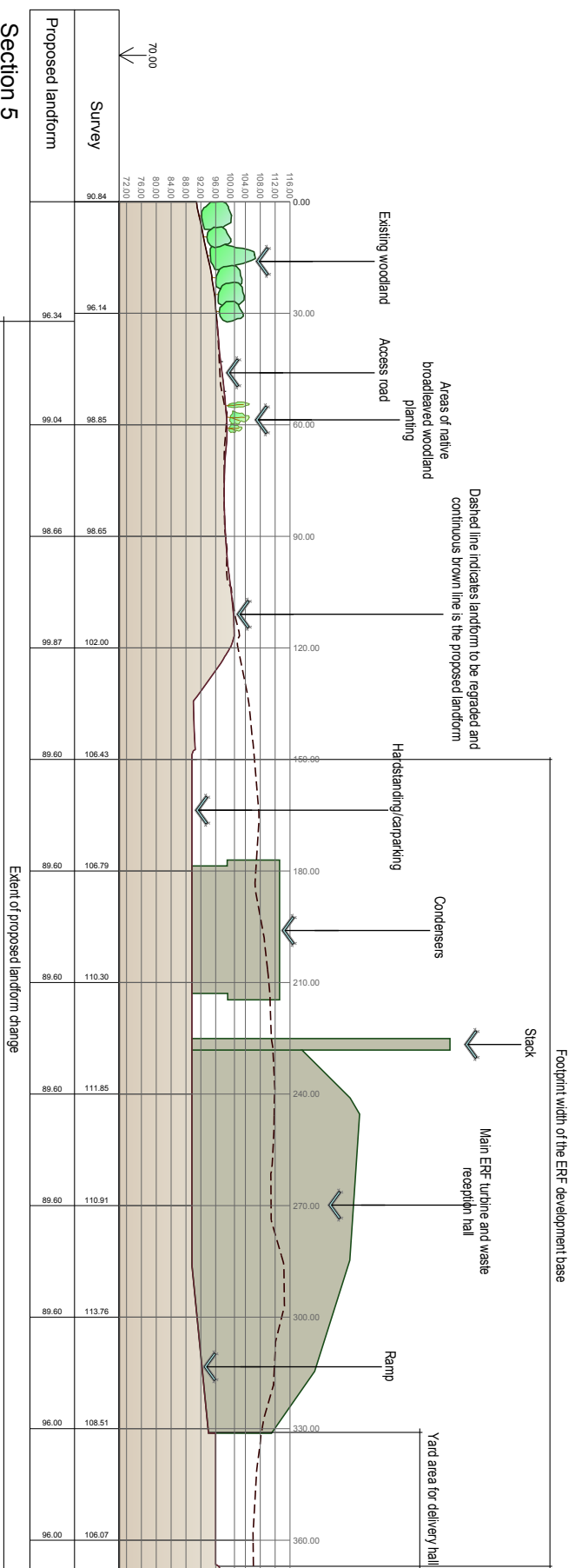
BT1180-D11

Project: **BUTTINGTON QUARRY**
Proposed Energy Recovery Facility (ERF)


Title: **Illustrative Cross Sections 3 and 4**

Colorful	Version	Drawing	Part name	Drawing Date
BT1180-D11	1	RB	A3 Section 1:1250	October 2020
Drawing				
BT1180-D11				

BT1180-D11



DRAWING NOTES
See Drawing BT1180-D2 for cross section locations

 BROAD ENERGY		Order# _____	
Project BUTTINGTON QUARRY Proposed Energy Recovery Facility (ERF)		Title: Illustrative Cross Section 5	
Colored BT1180-D11	Version 1	Drawn by RB	Date sent A3
Printed BT1180-D11	Scale Section 1:1250	Drawing Date/Issue October 2020	
Drawing No. BT1180-D11			

Extent of proposed landform change

Client:

BROAD ENERGY

Project:

**BUTTINGTON QUARRY
Proposed Energy Recovery Facility (ERF)**

Title:

Illustrative Cross Section 6

CD/Title:

B11180-D11

Version	Drawn by	Rev. desc.	Drawing Date/Time
1	RB		October 2020

Issued for:

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Section:

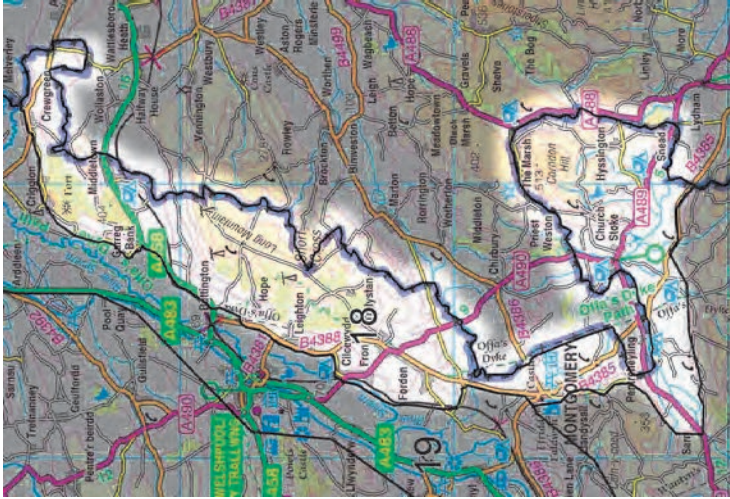
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Drawing:

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APPENDIX 4

Shropshire Hills (outliers) NLCA No.18 (Extract)



Bryniau Swydd Amwythig (allgreigiau) – Disgrifiad cryno

Ni ellir amgylfydd yr ardal fechan, anghymesur hon heb gyfeirio at dirweddau cyfagos Bryniau Swydd Amwythig tua'r dwyrain. Yn y swydd honno mae mwyafnir y trumiau a'r dyffrynnoedd hirion hyn, a'u tuedd dde-orllewinol - gogledd-ddwyrainol. Maen nhw'n cynnwys Carneddau Teon, Cefn Hirfynydd, a Cefn Gweunllwg: ond mae rhan o'r dirwedd hon yn ymestyn i Gymru, lle mae ardal fryniog fechan ar ochr ddwyrainol Dyffryn Hafren wedi'i gwahanu rhag gweddill ucheldir Cymru ymhellach tua'r gorllewin. Dyma fryniau Cornatyn, Roundton, Cefn Digoll, Moel y Golfa, Treberfedd a'r Breiddin, pob un â'i

nodweddion unigryw. Cynhwysir y dyffrynnoedd rhwng y bryniau, ac yn neilltuoel, Bro Trefaldwyn.

Tirwedd amaethyddol yw hon. Mae iddi lawr gwlad ffrwythlon â gwrychoedd cymen, coed aeddfed a sawl blanhiga goed. Cymeriad mynyddig sydd i'r bryniau uchaf, gan gynnwys rhosir o bwys ecolegol mawr ar fryn Cornatyn. Mae arddulliau adeiladu cymysg y pentrefi yn adlewyrchu'r flaith fod yma ffin: ond yn ddiwyllianol, rhan o Faldwyn yw hon. Mae Clawdd Offa'n mynd twy'r ardal, ac y mae yma gaerau a chaeau cynhanesyddol a chanoloesol, chwaraeli, tai bonedd bychain a phentrefannau. Y prif anheddiad yw pentref Trefaldwyn, i fyny ar fryn gyda'i gastell, mewn man o bwys hanesyddol lle gelir gweld tua'r gogledd, y gogledd-ddwyrain a'r de-ddwyrain. Heddiw y mae'n lle tawel, gwledig, gan gadw llawer o bensaernïaeth werinol, nodweddiadol.

Summary description

Sense of this small, irregularly shaped area is only gained with reference to the adjacent landscapes of the Shropshire Hills in England to the east. The majority of the SW-NE trending long ridged hills and vales lie within Shropshire. These include The Stiperstones, Long Mynd and Wenlock Edge. However part of this landscape spills over into Wales, forming a small area of hills on the eastern side of the Severn Valley that is physically separate from the main areas of Welsh upland that rise further to the west. The principle hills in Wales are Corndon Hill, Roundton Hill, Long Mountain, Moel y Golfa, Middleton Hill and the Breidden Hills, each being distinctive in their own right. Intermediate vales, notably the Vale of Montgomery, are included.

This is an agricultural landscape. It has fertile lowlands with neat hedgerows, mature trees and a number of woodland plantations. The highest hills have an upland character and include moorland with high ecological importance on Corndon Hill. Villages have mixed building styles reflecting this border area but culturally it is distinctly Montgomeryshire. Offa's Dyke runs through the area and there are prehistoric and medieval fortifications, field systems, quarries and small gentry houses and hamlets. The main settlement is the village of Montgomery, whose elevated location and castle occupy historically important vantage points, notably north, north-east and south-east. Today it is a peaceful, rural place, retaining much distinctive vernacular architecture.

Key characteristics
Outlying hills – a group of distinctive hills that are physically separate from the main upland areas of Wales this rise to the west, but that relate in many ways to those further east in Shropshire.
Hills, scarps – Ordovician sandstone long 'whale-back' ridges and concial or steep sided hills with localised tuff / volcanic rock and igneous rock outcrops.
Vales and lower hills - seasonally wet silty soils over shale support lush, grazing pasture interspersed with deciduous woodland on the lower slopes / foothills.
Upland hill tops - thin, infertile soils on the sandstones / volcanic rocks of the hill crests support moorland grassland. Corndon Hill is the largest upland area and has ecologically rich moorland and wet woodland
Dramatic and abrupt elevation of Breiddon Hills – notably from the Severn valley flood plain, and notably with a prominent quarrying scar.
Hilltop and defensive sites - prehistoric ritual sites on the hilltops, such as the burial cairns on Corndon Hill, Medieval moated sites in the Vale and in the well preserved section of Offa's Dyke falling within the area, as well as Montgomery Castle.
Montgomery town and castle – medieval walled town and strategic defensive vantage

point over the vale of Montgomery, with distinctive architecture.
Settlement generally confined to the Vale - associated with historic river crossing points, for example, at Church Stoke.
Open views across the Vale - and neighbouring Severn Valley. Views from Montgomery into England.
Field pattern - Larger scale fields and straighter boundaries than in much of the rest of Wales, but with exceptions e.g. around Corndon and Roundton Hills, where the pattern is more characteristically small scale, with high hedges and narrow lanes.
Very rural

Visual and Sensory Profile

There is a dominant pattern of SW-NE trending ‘whaleback’ ridges and the intermediate vales and scarps. Some of the higher hills are crowned with open moorland, and many have woodland on steeper slopes. The shapes of each hill are distinctive. On hill slopes there is a patchwork of small pasture fields, giving way to arable lands in the vales with the most prominent land marks being the hills.

The group that includes the Breidden Hills, Moel y Goffa, and Middleton Hill are widely visible as a distinctive range from adjacent lowlands in Shropshire. The juxtaposition of the northern side of the Breiddon Hills by the extensive flood plain of the Severn Valley is a spectacular contrast, with its steep cliffs, scree, and woodland overlooking the flat, open meadows. However the large and very visible Criggon Quarry in this hillside is a widely visible and very significant visual detractor to the scene.

Long Mountain has a distinct whaleback ridge but as it is enclosed with rectilinear, straight field boundaries and farmed to its summits, it does not actually have the feel of a mountain. It has a low incidence of individual or hedgerow trees and some significant blocks of mixed woodland on lower western slopes in association with ‘dingles’, creating a an enclosed in contrast to the summit where exposed skies and open views dominate.

Corndon Hill, Lan Fawr and Roundton Hill have a more dramatic, upland character, rising from an area of mosaic and grazed farmland, with dramatic views to Long Mynd to the east, and across the rolling lowland towards Afon Hafren river valley. The hills create a landscape of often sinuous line, with localised landform variation and containment provided by the undulating and often wooded foothills. Its foothills are traversed by a network of narrow, winding rural lanes, creating intimacy and enclosure. There is a patchwork of undulating pastoral fields, scrub and deciduous woodland, together with the network of field boundary hedgerows and trees.

The main Vale of Montgomery is a broad, flat, mixed agricultural landscape. There is a regular pattern of medium to large sized fields, managed hedgerows with many hedgerow trees. There are many clear views of the hills and scarps to the north and south and to adjacent higher landscapes to the east and west. Settlements provide enclaves of historic and architectural interest within this predominately rural landscape, the townscape of Montgomery being particularly notable, elevated above the vale yet under the ruined walls of its castle. The generally quiet, rural atmosphere of the area is notable.



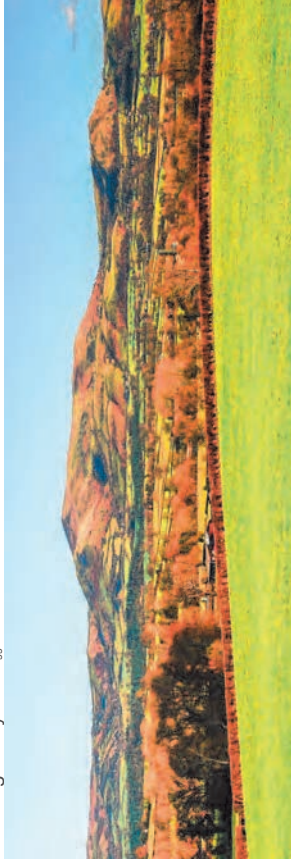
Roundton Hill with Corndon Hill to the background right. © John Briggs



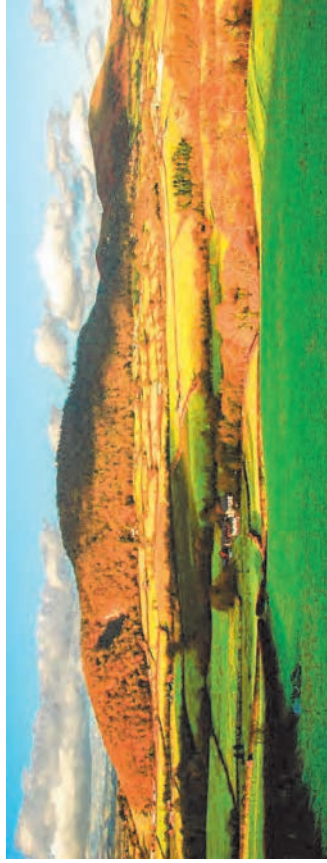
Corndon Hill from Montgomery Castle © John Briggs



Long Mountain (distance, right) as seen from Montgomery Castle, looking across the Vale of Montgomery © John Briggs



Corndon Hill and the Vale from south of Montgomery © John Briggs



Moel y Golfu and Middeltown Hill from the south. © John Briggs



From near Trewern, showing the western end of the Moel y Golfu, with the partially quarried face of the Breidden Hills beyond. © John Briggs



Detail showing the steep wooded sides of Moel y Golfu / Middeltown Hill near the village of Middeltown. © John Briggs

Geological Landscape influences

Comdon Hill rises to an altitude of 513m O.D. and forms the highest land mark within the area. The general pattern is of a SW-NE trending whaleback ridge/scarp and vale landform, formed by a bedrock geology of sandstones of the Llanvirn series interspersed

with localized intrusions of tuff/volcanic rock and igneous rock outcrops. Immediately to the west lies Lan Fawr (426m), to the south-east Black Radley Hill (354m) and to the south-west Roundton and Todleth Hill. To the south and south-west, this high ground gives way to the lower-lying floodplain occupied by the Camlad and Caebitra. These rivers are confluent at Church Stoke from where the Camlad flows north through Marrington Dingle, finally entering the River Severn west of Forden in the adjacent Severn Valley

The bedrock geology of the northern part of Shropshire Hills is characterized by Ordovician rocks, ranging in age from Llanvirn to Caradoc Series, with various sedimentary rock types present including conglomerates, sandstones, siltstones and mudstones, as well as a range of volcanic rocks including acid and basic tuffs, basaltic-andesitic lavas and volcanoclastic deposits. The total thickness of Ordovician strata is probably in excess of 3km. Volcanic rocks form much of the high ground of Todleth Hill, Roundton and Lan Fawr. This unit, together with other volcanic deposits, for example, near Hyssington, and the sandstone beds north and south of Hurdley, were once an important source of local stone, although there are now no working quarries in the area. Lead and barytes were mined at Roundton Hill.

During the Quaternary period of the last 2.6 million years, much of the Welsh Borderland area underwent episodes of glaciation, although there is evidence only for the last, Late Devensian phase, which ended here about 12,000 years ago. During this phase, ice from two sources, namely the Welsh Mountains and the Irish Sea, impinged on the northern Welsh Borderland region, although only Welsh ice directly affected this area. Whilst there is no evidence that Welsh ice overran the high ground of Corndon Hill and its environs, deposits of glacial till have been identified on the southern flank of the Camlad Valley and also in the ground north-west of Churchstoke. There are also many glacial hollows which have left a legacy of small pools and wetlands, especially just east of Montgomery.

Landscape Habitats influences

The Shropshire Hills area in Wales is dominated in the south by Corndon Hill, which is notable for a range of heath and grass communities, typical of Shropshire and the English Midlands. Large areas of the hill are dominated by sheep's fescue and mat-grass, with gorse and bilberry elsewhere, and the continental communities of bents with sheep's sorrel around the old quarry workings. The plant communities associated with the screes and rocky outcrops are particularly important, with a variety of ferns including beech fern. Corndon Hill is a SSSI.

The adjoining Roundton Hill NNR and SSSI is similarly protected for its grassland and heath communities, and its interesting lichen and spring ephemeral species such as rock stonecrop and knotted clover, tolerant of the dry conditions formed regularly on the thin soils. Horseshoe and Daubenton's bats now roost in many of the old mine adits and tunnels on Roundton Hill.

Further north, overlooking the Severn Valley, are the Long Mountain, Breidden Hill and Moel Y Goffa, the latter two being extensively wooded and SSSIs. Shallow soils susceptible to drought have limited the spread of woody species and enable less competitive plants such as rock cinquefoil and bloody cranesbill to survive, as well as the whitebeam amongst the tree population. Much of the woodland scrub has developed on stabilised screes, along with important lichen and moss communities. Moel Y Goffa is the largest semi-natural broadleaved woodland in Montgomeryshire, home to over 40 breeding woodland birds, including all three species of British woodpeckers.

In between the upland areas, the Vale of Montgomery contains seasonally wet silty soils, supporting a network of arable fields and grazed pastures, many of the later infested by rushes, and requiring careful agricultural management to avoid poaching and excessive trafficking in winter. Fields are bounded by mature hedges with many hedgerow trees. It is also an area where traditional farming practices have often continued and there is a legacy of smaller, unimproved grassland fields on the higher ground and margins. White Grit Meadows is an area of unimproved lowland dry grassland, characterised by sweet vernal-grass and crested dogs-tail. It supports dyer's greenweed and northern marsh orchid. Hillington Pasture is an area of unimproved acid pasture, on a peaty soil, with petty whin, yellow rattle and lousewort. Both sites are grazed.

The area has small areas of broadleaved woodland, largely on steeper slopes and in wetter areas of the valleys. Coed Pentre is a small ash-wych elm woodland typical of the area, with abundant oak and an understorey of hazel.

Historic Landscape influences

Many historic influences are visibly embodied within the present landscape. Older patterns and features signify past strategic importance as an Iron Age, Roman, early Medieval and Marcher land / border landscape. One of two Roman forts in the vale is at Brompton. There is also ample evidence of prehistoric and early medieval ritual and waymarking features, such as the cairn on Corndon Hill. Offa's Dyke, the 8th - 9th century's frontier work of the Saxon kingdom of Mercia, crosses the area north to south. It is an evident symbol of past efforts at territorial control but today forms a distinctive linear landscape feature within the Vale of Montgomery, where it still forms part of the national boundary with England and part of a National Trail. Remnants of Medieval moated sites have survived in lowland areas. The strongly sited Montgomery Castle built in the 1230s during Henry III's campaign against Llywelyn ab Iorwerth, overlooks its planned walled town and hinterland in the south west.

Settlement tends to keep to the vale. Church Stoke was originally a compact nucleated village, its early core and neighbourhood containing a considerable number of architecturally distinctive houses dating from the early 17th to the late 19th centuries with red brick and local stone being the predominant building materials. Other villages have retained a more compact character, for example, Hyssington. Elsewhere a strongly agricultural landscape prevails with a series of large farms, the quality of building, especially in early periods, indicative of considerable wealth. To some extent this story continued in a series of small country houses, with the mix of building materials that can be seen - timber, stone and brick- relating to chronology and location of settlement. The walled town of Montgomery was established as a borough in the early 13th century and retains the distinctive form of a medieval planned town. Although it never expanded far beyond its original limits, prosperity in the 17th to early 19th centuries is clearly indicated in the quality and status of many of its buildings.

The Parliamentary Enclosure agricultural landscape of the Vale is visually distinctive, owing to the presence of treed field boundary hedgerows. Leighton Hall and the model farm (now split into various components) is a historically highly important 19th century landscape in its own right

Cultural Landscape influences

The area was for many years a seat of Mercian, Anglo-Norman or English power, with Offa's Dyke marking a division with Welsh princedoms to the west, and in part still forms the national border today, just east of Montgomery. The town of 'Montgomery' takes its English name from the Pays d'Auge in Normandy, whence came Roger de Montgomery with William the Conqueror. Its Welsh name, Trefaldwyn, also comes from a Norman lord – Baldwin, who held Hen Domen in the 12th century. In later times, from the reign of Henry VIII, the Herberts of Montgomery dominated this area, and were active in bringing Wales into the Tudor polity by suppressing 'rebels, thieves and outlaws' and supporting the Laws in Wales Acts. The High Anglican poet George Herbert (1593-1633) was the most famous of this family, though in his lifetime Montgomery also supported a Puritan School and formed a link between the religious radicalism of Dolobran (NLCA17) and of Radnorshire (NLCA20).

It is hard to see the area now as a troubled border, or Montgomery as a garrison town. Leland recorded its 'great ruins' and 'broken towerets' in the 16th century but they have all gone. The views east, to Corndon Hill, and north over the Severn valley, are as peaceful as could be.

Culturally the area still conveys its historical significance as a contested landscape with its many defended sites and fortifications, the supreme example being Offa's Dyke that bounds the south west of the area and neatly splits the Vale of Montgomery into its Welsh and English halves. Today the Dyke can be enjoyed and appreciated by walkers using the Offa's Dyke National Trail. It is noticeable that place names are for the most part non-Welsh, owing their origins to dominant early Medieval and Anglo-Norman influences. The incidence of Welsh speaking is low, though the people are fiercely protective of their identity as residents of Montgomeryshire rather than of the super-county of Powys.

APPENDIX 5

National Landscape Character (Wales and England)

The table summarises key characteristics. Distance and direction is provided from the stack. Viewpoint Locations within the principal study area adopted for the LVIA are identified. (Table prepared by B&A).

Table 5A: National Landscape Character (Wales and England)

KEY CHARACTERISTICS
National Landscape Character Areas (NLCAs) (Wales)
<p>Montgomeryshire Hills and Vales NLCA No.17 (c.2.1km north-west) (Viewpoint Location 19, 25, 27, 29, 31 and 33)</p> <ul style="list-style-type: none"> • A series of hills and valleys - which are aligned broadly east to west, with sinuous, curved skylines. • A mix of both upland and lowland parts – the highest land in the north-west adjacent to Y Berwyn. As a whole the area is transitional between adjacent upland and lowland. • A number of rivers - carve through the area, notably those of the Tanat and Vymwy. • Pastoral agriculture - with lowland pasture in the river valleys and hill sheep farming on the upper valley sides and ridges. • Hedgerows with trees - as field boundaries • Woodland - blocks of deciduous woodland of irregular or organic form, especially on steep valley sides and with important ecological importance, and some coniferous plantation woodland. • Archaeology - sites and settlements from the Roman and Medieval periods, in addition to a number of historic parklands such as Llangedwyn and Bodfach. Meifod was an important Early Christian church foundation. • Settlement - confined to isolated farmsteads and compact nucleated valley villages associated primarily with historic river crossing points. • Patchwork landscape of pastoral fields and woodland, with an intimate spatial character created by the distinctive combination of vegetation and the undulating ridge and valley land form.
<p>Severn Valley NLCA No.19 (c.320m north-west) (Viewpoint Location 12, 20 to 24, 26, 28 and 30)</p> <ul style="list-style-type: none"> • Major river valley – of the mature Severn within Wales, gently meandering across a flood plain, constrained by sometimes steeply rising hillsides. A number of tributaries join the Severn in this area. • Bedrock - geology is predominantly Silurian slate, shale and mudstone, with sandstones evident to the northern end of the area. • Soils – rich alluvial farmland on the flood plain with seasonally wet silty soils overlaying river alluvium. Silty soils overlaying the Silurian sandstones and seasonally wet silty soils on the shales and mudstones. • Valley floor - Lowland pastoral farm land interspersed with woodlands, also with wetland rush pasture associated with the course of the Severn. Woodlands are mainly broad- leafed and include some wet woodland . • Valley sides - often well wooded, with both deciduous and coniferous plantation evident. A sense of containment is created by the wooded valley sides and their relationship with the adjoining upland areas. • Valley settlement pattern - Settlement pattern relates to this strategic importance with nucleated valley floor settlements having grown up around former military sites, for example, at Caersws. • Forts, castles, historic defences - include prehistoric encampments, parts of Offa's Dyke, the Roman fort complex at Caersws and a number of Medieval castles, of which Dolforwyn is a good example indicating the past strategic importance of the valley. Powys Castle by Welshpool and its extensive parklands are well known visitor attractions today. • Expanding light industrial town of Newtown – a regional hub of activity, historically enabled by the Shropshire Union Canal and the Cambrian Railway but today being a regional centre. • Tranquil rural setting versus busy roads and towns - much of the valley has an otherwise tranquil and pastoral character, although this is punctuated by the influence of the main valley floor settlements of Llanidloes, Newtown and Welshpool and the A470, A 483 and A 489 roads.
National Character Areas (NCAs) (England)
<p>Shropshire, Cheshire and Staffordshire Plain NCA No.61 (c.7.7km east) (No Viewpoint Location)</p> <ul style="list-style-type: none"> • Extensive, gently undulating plain, dominated by thick glacial till from the late Pleistocene Period, producing productive, clay soils and exemplifying characteristic glacial landforms including eskers, glacial fans, kettle holes, moraines and a landscape of meres and mosses. • Prominent discontinuous sandstone ridges of Triassic age, characterised by steep sides and freely draining, generally infertile soil that supports broadleaved and mixed woodland. • Few woodlands, confined to the area around Northwich and to estates, cloughs and deciduous and mixed woods on the steeper slopes of the wind-swept sandstone ridges. Locally extensive tracts of coniferous woodland and locally distinctive orchards scattered throughout. • Strong field patterns with generally well-maintained boundaries, predominantly hedgerows, with dense, mature hedgerow trees. Sandstone walls occur on the ridges and estate walls and Cheshire-style (curved topped) metal railing fences occur locally on estates in Cheshire. • Dairy farming dominates on the plain, with patches of mixed farming and arable in the north and large areas in the south-east. • Diversity of wetland habitats includes internationally important meres and mosses comprising lowland raised bog, fen, wet woodland, reedbed and standing water, supporting populations of a host of rare wildlife, including some species of national and international importance. • Extensive peat flood plains where flood plain grazing marsh habitats support regionally important populations of breeding waders in areas such as Baggy Moor, Weald Moor and Doxey Marshes. • Many main rivers and their flood plains lie in this area, including the Dee, Dane, Severn, Penk and Sow. Significant areas of grazing marsh, alluvial flood meadows and hay meadows associated with the rivers Dee, Sow, Gowy and Severn. The area has the highest density of field ponds in western Europe. • Rich archaeological evidence of iron-age hill forts concentrated on the sandstone ridges and the Weald Moors. Remnant ridge and furrow and moated houses are features of the plain. The Roman road, Watling Street, crosses the plain linking London to Wales via Wroxeter. Chester was an important Roman settlement. • Regularly spaced, large farmsteads, dispersed hamlets, market towns and many other settlements including Macclesfield and Telford. Timber-frame buildings are a distinctive feature of the plain, often highly decorated in Cheshire, for example, the moated Little Moreton Hall. The historic towns including

KEY CHARACTERISTICS

Stafford, Shrewsbury and the city of Chester have a wealth of 17th- and 18th-century half-timber, brick and red sandstone buildings. • Parklands and gardens associated with estates such as Chillington, Trentham, Tatton and Attingham; country houses such as Gawsworth Hall, Arley Hall and Adlington Hall; and fortified manor houses and castles such as at Shrewsbury, Stafford, Beeston, Acton Burnell and Cholmondeley. • Nationally important reserves of silica sand and salt. Active extraction of salt has developed a locally distinctive landscape of subsidence flashes, particularly around the area of Sandbach. Adjacent to these saline flashes are areas of salt marsh rarely found at inland sites. • The numerous canals are important for recreation as well as habitat. Several National Cycle Routes and nearly 5,000 km of public rights of way cross the plain. Six National Nature Reserves (NNRs) are scattered throughout, close to large population centres and well used for recreation.

Oswestry Uplands NCA No.63 (c.11.2km north) (Viewpoint Location 32)

• Steeply sloping, flat-topped, predominantly limestone hills form a band across the western half of the area, giving way to gentler foothills and the Shropshire Plain to the east. • Soils are derived from the Carboniferous limestone bedrock and support rare flora and fauna such as the pyramidal and greater butterfly orchids. • Numerous streams winding across the undulating landscape, with dramatic gorges carved out in the limestone, support species such as the Atlantic stream crayfish. • There are scattered patches of broadleaved woodland and coniferous plantations throughout the area, particularly on the steeper slopes, which are dissected by narrow, often wooded valleys. There are linear woodlands along valley sides and wet woodlands on valley bottoms. • Pasture is the dominant land use on the higher ground, with mixed, more commercial agriculture on the foothills to the east. • The field pattern is irregular, with species-rich hedgerows (characteristically hazel) and some hedgerow trees across much of the area; however, the pattern is more regular in the north-west, where it is of relatively late enclosure. • There is a strong Welsh influence on place names, and dispersed settlement character, particularly in the west and south. A clustered settlement pattern occurs in the south-west, associated with the mining industry. • A strong time depth is evident in the medieval and earlier field patterns and routeways, iron-age hill forts such as that found at Oswestry, scattered parklands on lower slopes and industrial mining activity/archaeology. • Industrial and residential development is evident around the market town of Oswestry, but the area is still one of the most tranquil in the west Midlands area. • Many former quarries are dramatic features in the landscape but are now abandoned and have become overgrown with grassland and scrub. • There are traditional farmsteads and buildings of local Carboniferous limestone with slate roofs. They are occasionally whitewashed. • Offa's Dyke is an important historic landscape and recreational feature that runs north-south through the area.

Shropshire Hills NCA No.65 (c.2.6km east) (Viewpoint Location 15)

• The Shropshire Hills NCA is dominated by a series of ridges, scarps and intervening valleys running south-west to north-east. Distributed across the area are many smaller steep and rounded hills. • A geologically significant, complex and diverse area, comprising Precambrian to Permian rocks, as well as a variety of sedimentary and igneous rocks. Combined with the geological structure, these have a major influence on the landscape and land use of the area, as well as contributing significantly to early studies of the science of geology. • The red, silty loam soils over silty clays, particularly over the Clee Hills plateau, offer fertile and well drained agricultural land that supports an important sheep and beef cattle industry. • Semi-natural woodlands are scattered across the area, although many are largely confined to the slopes, where ash, elm and oak stands occur. Upland oak woods predominate to the north and east of the Stiperstones ridge. There are numerous conifer and mixed plantations. • Moorland, extensive areas of unimproved semi-natural grassland and small areas of calcareous grassland can be found across the area. • Rivers and streams, with associated lines of alder trees, are prominent features of the landscape. The major watercourses are the rivers Onny, Corve and Rea Brook, which are home to important species such as dipper, white-clawed crayfish and otter. • The area exhibits great diversity in its historic environment. The earliest evidence of human occupation comes from the burial monuments of the Bronze Age. Relic quarries and mining sites record important episodes in the area's industrial past. • A wide variety of local building styles and materials exists, reflecting the different geological outcrops, for example Kenley Grit, Acton Scott Limestone and Chatwall Flags. • There are scattered farmsteads in the dales and sheltering valleys, with larger settlements confined to the A49 corridor – Church Stretton, Craven Arms and Ludlow. Villages and hamlets are dispersed across the area. Farmsteads on roadsides and in commonedge settlements make an especially significant contribution to the character of the Shropshire Hills. • The NCA offers an extensive network of rights of way and open access land, as well as the Offa's Dyke National Trail. There are many locally well known landmarks, and a few honeypot sites such as Carding Mill Valley and The Wrekin.

APPENDIX 6

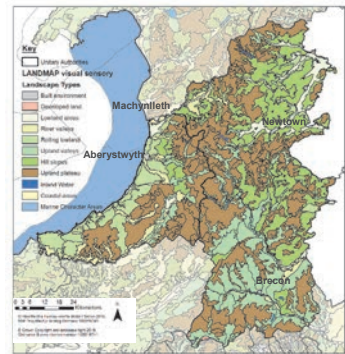
LANDMAP Mid-Wales Area Statement (2018) (Extract)

Landscape, Seascape and Cultural Services

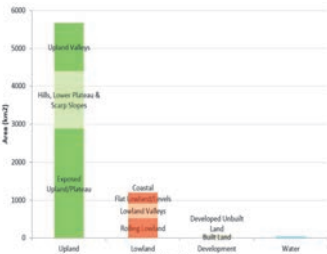
Shaped by nature and people over time, landscapes are the settings in which we live, work and experience life. All landscapes matter. They combine natural resources, culture and economy. Many environmental resilience and place-based planning challenges that shape our future wellbeing and prosperity are best addressed at a landscape-scale.

Landscape characteristics and qualities combine to create a distinct sense of place. Sense of place is key to understanding how we derive cultural inspiration and well-being from landscape. Understanding the contribution of landscape to cultural services is part of the natural resources approach.

www.naturalresources.wales/landscape



LANDMAP Visual & Sensory Landscape Types



The Mid-Wales Landscape

A very large rural area with regional scale remote uplands and mountains, coastline, reservoirs and borderlands contributing to its identity. The area encompasses part of the Brecon Beacons, the highest mountain range in Southern Britain, and a substantial part of the Brecon Beacons National Park. The Cambrian Mountains form an upland spine that divides mid Wales and continues northwards to the Berwyns. The rivers Severn, Wye, Usk and Teifi flow through the area, punctuated by historic towns, villages and castles. Tranquil, undulating rural farmland dominates the hills and deep, often wooded, valleys that descend to the rugged Ceredigion coastline and coastal resort towns. Moors, forests and deep reservoir valleys are associated with the extensive wilder uplands

Headline Characteristics

- Strong contrasts across the area from settled farmed valleys, to sinuous light reflecting reservoirs, wilder exposed, tranquil and unpopulated uplands and dramatic coastal edge with expansive seascape views.
- Over 81% of the area are upland landscapes with over half characterised as exposed, remote and tranquil
- 13% of the area is within a National Park and 44% is Heritage Coast. Wales' only UNESCO Biosphere, the Dyfi Valley, is partly included
- Lowland landscapes account for 17%, characterised by traditional farmland in the lower hills and valleys
- Development is limited with less than 1% of the area classified as development (national average 5.14%)
- Characterised by large areas of high, exposed upland moorland & blanket bog, scattered areas of heath and large forestry plantations; enclosed farmland on hillslopes, valleys and lowlands; oak and ash woodlands along steep valleys
- Much of the area retains historic influences and interest and there are 10 Registered Historic Landscapes
- Many examples of historic castles, towns and villages, hillforts and industrial features in the valleys and lowlands, with prehistoric remains in the uplands
- Reservoirs within remote and wild valleys of the Cambrian and Berwyn uplands
- Spectacular coastline of rocky cliffs, sandy bays and estuaries
- Source of the rivers Severn, Teifi & Wye which flow through the area.
- Picturesque landscapes of the Montgomery canal Special Area of Conservation
- Cors Caron and Cors Fochno are rare raised bogs with a wild, natural appearance

Distinctive landscapes and sense of place

The Brecon Beacons and Black Mountains form an extensive chain of exposed upland ridges and moorland plateau with dramatic north facing peaks and crags and smooth expanses of south facing moors. Together with parts of the Usk & Wye Valleys and limestone uplands to the south and waterfall country of the narrow, wooded upper Tawe, Neath and its tributaries, they form the substantial part of the **Brecon Beacons National Park**. Much of the park is also a Dark Skies Reserve, the Forest Fawr UNESCO Global Geopark partially covers the south of the area.

These places are tranquil, wild and remote with expansive views and are popular for outdoor recreation. Reservoirs to the south provide a visitor focus and scenic views. The historic landscape of the Middle Usk Valley includes Llangorse Lake, a rare natural lake lined with trees, pasture and reeds, sitting within a rising bowl landform.

Historic castles, towns and villages, hillforts and industrial features such as tramways and the Brecon and Monmouthshire Canal are features of the valleys. The Usk Valley is broad downstream of Brecon, narrow and wooded upstream to Carmarthenshire, picturesque and tranquil away from main roads. The historic landscape of the Middle Wye includes medieval settlements such as Hay on Wye.

Within **Powys** to the north of the National Park, the peaceful valleys of the Epynt Plateau are a rich mosaic of pasture fields, woodlands and fast-flowing streams.

The Wye Valley south of Bwlth Wells is an unspoilt area with scenic quality and strong character derived from the varied topography, steep slopes, rock outcrops, mature woodland and pastoral mosaic. This is enjoyed by travellers on the A470 which gives the area importance.

The Radnorshire Hills comprises areas of open moorland, forestry and upland grazing with dramatic long ranging views over smooth rolling hills and sheltered valleys of traditional farmland. A very rural area with qualities of timelessness and tranquility, occasionally interrupted by windfarms.

Long Mountain and Cordon Hill form prominent upland landforms and sense of place to the edge of the Shropshire Hills.

The Vale of Montgomery historic landscape crosses the Welsh-English border and comprises traditional rolling farmland of the vale and hills with attractive, tranquil, safe, settled qualities. Offa's Dyke scheduled monument and National Trail passes through from north to south and the River Severn forms a broad floodplain north of Montgomery on its journey from the Plynlimon uplands to the west, through the historic landscape of the Caersws Basin, with its Iron Age and Roman features, north eastwards towards the English border.

The Berwyn moorland plateau to the north encloses the historic landscape of the Tanat Valley, including distinct tributary valleys containing the dramatic and scenic Pistyll Rhaeadr (the highest waterfall in Wales) and craggy peak of Craig Rhiwarth. The area provides attractive, exposed, invigorating and wild qualities, with strong cultural identity in its historic hillforts, farming, mining and quarrying and St Melangell's Church. South of the Tanat lies the deep Vyrnwy valley with its large reservoir, a popular recreational area, and beyond forests and moorland with occasional windfarms slope down to the Dyfi Valley to the west.

The fringes of the Cambrian Mountains include the distinctive Plynlimon Moorlands, conifer forests and historic landscapes of the Clywedog and Elan Valley with its complex of reservoirs. The moorlands are exposed and wild with long distance dramatic views of Snowdonia; the reservoirs sinuous linking water bodies within dramatic valleys complemented by striking dams, popular for scenic recreation, wildlife watching and fishing. The upper Irfon forms a dramatic upland valley where it cuts through the Tywi Forest at the border with Ceredigion.

The main spine of the Cambrian Mountains run north-south along the eastern edge of **Ceredigion**, with much of the area included in the Upland Ceredigion historic landscape, important for prehistoric and mining features. The area includes the rocky summits of Plynlimon and is a remote, wild, expansive area of rugged moorland and blanket bog with dramatic scarp slopes along western fringes. Popular as a tourism/recreational resource, it includes Nant y Moch reservoir, areas of forestry and occasional windfarms.

To the north, the wild and highly distinctive estuary of the Dyfi Biosphere gives way to attractive rhythmically rolling landform to the east, forming the border with Snowdonia to the north.

Artists valley and Afon Ceulanin valley cut into the Cambrian Mountains. The former is distinctive for its deciduous woodland, intimacy, waterfalls and historic features, the latter for its open upland character.

The deep, oak wooded valleys of the Vale of Rheidol and Ystwyth flow west to the coast. The Vale of Rheidol becomes a wild and spectacular gorge at Devils Bridge, with outcrops, waterfalls and cascades. The Rheidol Railway provides access for visitors and an evolving experience, in places perched dramatically above the valley floor.

The Ystwyth valley is a dramatic V-shaped valley providing an exciting crossing point to the Elan Valley in Powys. Lead mining and the Hafod estate historic parkland provide a sense of history and visitor interest.

Teifi Pools are a remote and attractive collection of small natural pools and reservoirs at the upper reaches of the Teifi amongst rugged open moorland. Long ranging panoramic views extend to the coast lowlands and across the Cambrian Mountains. The River Teifi flows past the historic Strata Florida Abbey into the expansive bog at Cors Caron, near Tregaron. The bog is a rare lowland wetland mosaic forming an attractive, wild, natural area. The historic University town of Lampeter lies on the Teifi and narrow valleys with historic woolen mills form tributaries. The Lower Teifi Valley retains a strong pattern of post medieval fields and estate dominated landscape where it forms the border with Pembrokeshire.

Llyn Brienne reservoir and its extensive forestry at the upper reaches of the River Tywi lie close to the border with Carmarthenshire.

The Cardigan Bay cliffs form rugged and in places dramatic towering cliffs with occasional sandy bays below. Cardigan Island lies to the south. The coastline provides expansive sea views across Cardigan Bay with wild, remote and spiritual qualities. Narrow, deep wooded valleys lead to the coast and historic towns and resorts such as Aberystwyth and Cardigan and the Wales Coast Path provide tourism and recreation.

Tranquillity

- Large areas of tranquil landscape away from the road network, main towns and wind farms
- The southern Cambrian Mountains is one of the two largest tranquil areas in Wales over 1000km²
- The Brecon Beacons National Park and Elan Valley have International Dark Sky status
- Tranquil areas have decreased by 9% over a 12-year period. Despite the considerable loss of 488km² tranquil landscapes, over 5,200km² of tranquil landscapes remained in 2009

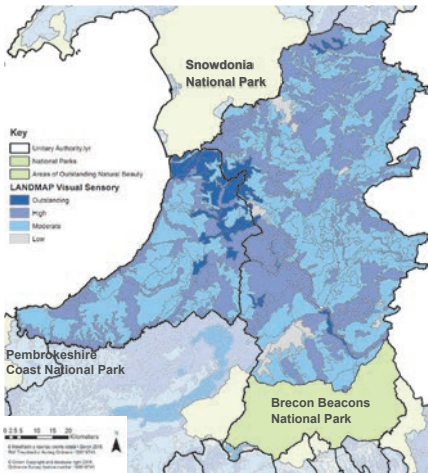


Landscape Change

- Small scale (<1km²) increases in development within greenfield and undeveloped built land, mostly from expansion to settlements
- Increasing commercial development, landscape scale road improvements and mining and reclamation works
- Increasing large poultry units, large dairy farms and agricultural sheds
- Increasing impacts from coastal and inland caravan sites, changed seascape from Borth sea defences
- Increased cumulative and visual impacts from single turbines, windfarms and solar developments
- Tranquillity affected by MOD at Aberporth and activities like Harness Racing race track
- Broadleaved trees have replaced conifers on prominent valleys sides, near main roads, recreational facilities and routes. Felling due to Phytophthora and Chalara have also changed the forest landscape, particularly on NRW managed sites
- Changing upland vegetation is evident on plateau tops of the Cambrian Mountains and diversity in the Berwyn uplands. Encroachment of bracken onto moorland is evident on the main Brecon Beacon and Black Mountain peaks. The reduction in mosaic habitats in Brecknockshire indicates it is becoming generally less diverse. Decreasing bog cover in Ceredigion as acid grassland encroaches.
- Positive improvements such as from landscape partnership schemes and projects (Machynlleth Town, Severn Valley, Elan Links)

LANDMAP Visual & Sensory Landscape Evaluation

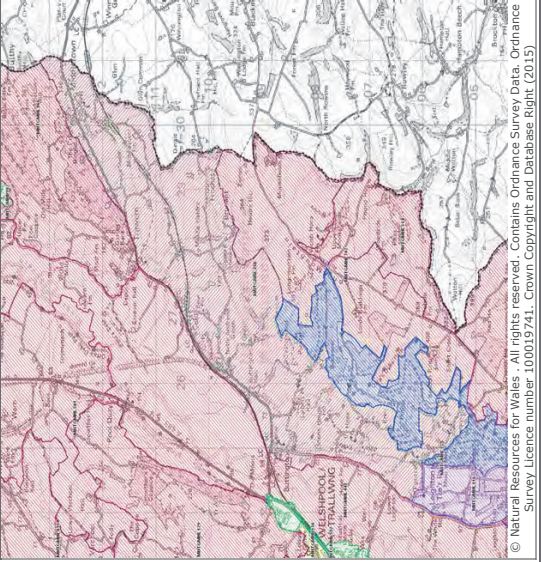
- 11% (758km²) of this Area Statement area is evaluated as a **nationally outstanding** visual & sensory landscape, 90% of the outstanding landscapes are upland
- 41% (2,886km²) are evaluated as **high, regionally important** landscapes, 80% are upland
- As a general principle of landscape resource management, we should seek to conserve and enhance outstanding and high landscapes as these contain characteristics of national and county value.
- Qualities such as tranquillity, wildness, naturalness, built heritage and cultural identity, aesthetic appreciation and recreation, are cultural services of landscape that are also valued by people and can occur across many parts of the area
- Within landscapes of lower quality the general principle is to enhance landscapes to contribute to wellbeing



APPENDIX 7

LANDMAP Site Related Aspect Areas (Extract)

current integrity and condition of the Earth Heritage features of the area?	Appropriate planning for geoconservation at Buttington Brickworks SSSI is essential.)
Aspect Area Boundary	
To what level was this information site-surveyed?	Level 3
At 1:10,000, how much of the Aspect Area boundary is precise?	None (Aspect Area boundaries surveyed at 1:10,000, mapped at 1:25,000.)
What baseline information source was used for Aspect Area boundary mapping?	Other (British Geological Survey maps, aerial photographs, OS 1:25,000 Landranger topographical map.)
If OS Data was used, what was the scale?	1:25,000
What is the justification for the Aspect Area boundaries?	Break of slope at base of solid geology massif and junction with valley systems, also base of Ludlow escarpment of Long Mountain.
Evaluation Matrix	
Evaluation Criteria: Research Value	Outstanding (Includes nationally important geology (Buttington Brickworks SSSI).)
Evaluation Criteria: Educational Value	Outstanding (Includes nationally important geology (Buttington Brickworks SSSI).)
Evaluation Criteria: Historical Value	Outstanding (Includes nationally important geology (Buttington Brickworks SSSI).)
Evaluation Criteria: Rarity / Uniqueness	Outstanding (Includes nationally important geology (Buttington Brickworks SSSI).)
Evaluation Criteria: Classic Example	Outstanding (Includes nationally important geology (Buttington Brickworks SSSI).)
Evaluation Criteria: Overall Evaluation	Outstanding (Includes nationally important geology (Buttington Brickworks SSSI).)
Description	
Which of the following is a significant contributor to the geological character of the area?	Stratigraphic formation(s) (Latest Ordovician (Ashgill) and Lower Silurian (Telychian, Llandovery) slaty mudrocks.)
What is the characteristic Level 3 component of the area?	Lowland escarpment
What is the geographical and topographical character of this area?	Forms the lower part of the scarp face of Long Mountain. Generally moderately steep, but levelling out at base. Mainly developed in Wenlock (Middle Silurian) mudrocks, with minor Llandovery (Lower Silurian) at base. Cwm's present with probably glacial infill.
Evaluation Matrix	
Justification of overall evaluation	Includes nationally important geology (Buttington Brickworks SSSI).
Bibliography	
List the key sources used for this assessment	British Geological Survey. (1994) The Rocks of Wales / Gogleu Cymru (1:250000); Davies, et al. (1978), Geology of Powys in outcrop (PCC); Ordnance Survey (1999), Explorer 216 (1:25,000 scale); Ordnance Survey (2000a), Explorer 240 (1:25,000 scale); Ordnance Survey (2000b), Explorer 255 (1:25,000 scale); Woodcock and Basset (1993). Geological excursions in Powys, Central Wales (UWP).
Assessment	
Additional Assessments	None.
Additional Comments	Additional Level 4 features include: Stream
Monitoring	
Has the information ever been verified in the field?	No
Does this area have a special or functional link with an adjacent area?	Yes (Forms base of scarp of long Mountain.)
Description	
If Classification is "Other", specify here	N/A.
Recommendations	
Existing management remarks:	Dominantly rural area with limited / no significant development.
Description	
Where bedrock dominated, what is the dominant bedrock type?	Sedimentary
Where bedrock dominated, what is the age that characterises the aspect area?	Silurian
Where bedrock dominated, what is the major rock lithology (-ies)?	

Historic Landscape	
Aspect Area Name	Buttington / Middletown
Aspect Area Classification	Rural environment/Agricultural/Irregular Fieldscapes (Level 3)
Aspect Area Code	MNTGMHL310
Date Of Survey : 24/03/2006	
	
Description	
If working at level 3, the classification describes the dominant historic pattern, but which other patterns contribute to the historical pattern of this area? (Tick all that apply)	<input type="checkbox"/> Nucleated Settlement <input type="checkbox"/> Other Settlement
Monitoring	
Has the information ever been verified in the field?	No
Does this area have a special or functional link with an adjacent area?	No
Description	
Which traditional boundary types prevail in the area? (Tick all that apply)	<input type="checkbox"/> Hedgerow <input type="checkbox"/> With Trees <input type="checkbox"/> Historic <input type="checkbox"/> Post & Wire Fence
What is the nature of any significant archaeological interest in the area? (Tick all that apply)	<input type="checkbox"/> Buried-dry <input type="checkbox"/> Field-archaeology <input type="checkbox"/> Relict-Settlements <input type="checkbox"/> Buildings & Structures <input type="checkbox"/> Documentary
Which chronological period is dominant in the area?	Post Medieval (1536+) Medieval (to 1536)
Has a Historic Landscape Characterisation been undertaken here?	No
Are there SMR sites here?	Yes
Are there SAKs here?	Yes
Are there Listed Buildings here?	Yes
Are there Registered Historic Parks and Gardens here?	No
Are there Conservation Areas here?	Yes
Are there World Heritage Sites here?	No
Is the area within a Registered Landscape of Historic Interest?	No
Aspect Area Boundary	
To what level was this information site-surveyed?	Level 3
At 1:10,000, how much of the Aspect Area boundary is precise?	All
What baseline information source was used for Aspect Area boundary mapping?	OS Raster
If OS Data was used, what was the scale?	1:10,000
What is the justification for the Aspect Area	Defined with reference to topography and field pattern...

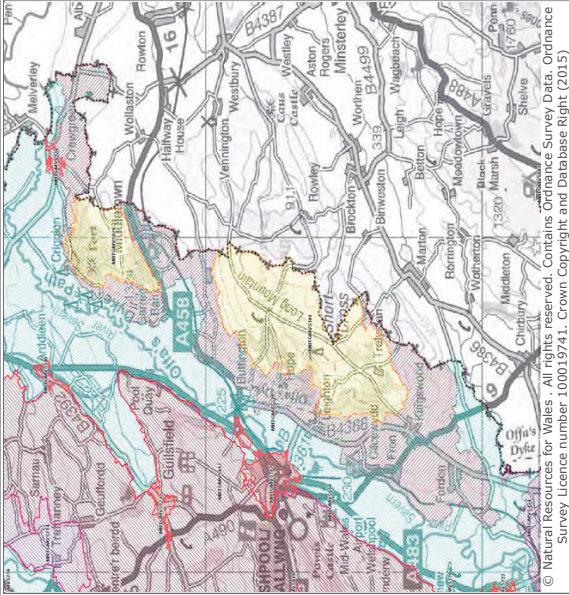
boundaries?	
Bibliography	
List the key sources used for this assessment	See general bibliography in Technical Report, and sources quoted in Regional Historic Environment Record...
Assessment	
Additional Assessments	
Additional Comments	
Evaluation Matrix	
Evaluation Criteria: Overall Evaluation	High (See overall justification.)
Justification of overall evaluation	Area of irregular fields occupying the lower west facing slopes of Long Mountain to the east of the Severn. Predominantly medieval and later farms and agriculture. Also containing a section of Offa's Dyke, potentially Saxon settlement of Buttington (and its possible battle site) and the later village of Middletown. Scores well because of its complex content.
Evaluation	
Condition:	
Value:	High
Trend:	Constant
Recommendations	
Existing management	
Existing management remarks:	
Principal management recommendations	
Guideline	
Description	
Summary Description / Key Patterns and Elements	Mixed, irregular fieldscapes probably of medieval to post-medieval origin on western and northern flanks of Long Mountain. The area is crossed by the early medieval Offa's Dyke. Dispersed farms and cottages of medieval to post-medieval origin. Small nucleated church settlements possibly of medieval origin at Buttington and Middletown.
If Classification is "Other", specify here	
Evaluation Matrix	
Evaluation Criteria: Integrity	Moderate (See overall justification.)
Evaluation Criteria: Potential	Outstanding (See overall justification.)
Evaluation Criteria: Rarity	High (See overall justification.)
Evaluation Criteria: Survival	High (See overall justification.)
Evaluation Criteria: Condition	Moderate (See overall justification.)
Monitoring	
Date of monitoring?	2017-03-15
Monitoring undertaken by	Historic Landscape change detection work completed by the relevant Welsh Archaeological Trust for this area, the planning authority have been included. Quality Assurance of change detection work was completed by Tysor.
Has this record been updated following monitoring work?	

	(Field visit required)	
Do any of the above appear to have an appreciable positive impact on biodiversity? (Field visit required)	Some (Hay cutting on SSSI maintains its diversity.)	
Do any of the above appear to have an appreciable negative impact on biodiversity? (Field visit required)		
Is the biodiversity in the area in any way threatened?	Not known	
Are there clear signs to improve the biodiversity aspect of this area?	Yes (Where the hedges are not stockproof in their own right they would benefit by maintenance work and replanting of gaps)	
Summarise the key features that define this Area's Biodiversity Character	This area is made up of pasture and arable fields along the flat valley floor adjacent to the river Seven. The mixed patterned of grass and arable fields together with small ribbons of woodland which follow streams and the river itself give an important mosaic to the landscape which is enhanced by the occasional unimproved fields containing interesting native species such as Oxeye Bryn Pasture SSSI. This mosaic is also important for a wide range of bat and bird species. Of particular interest here are the redpoll and meadow pipit. In addition to trees and shrubs near the Montgomery Canal it contains some ancient woodlands which support oak coppice and other plant life of exceptional richness, including a large population of the internationally rare and threatened floating water plantain Luronium natans and a several other rare and scarce water plants. An important aquatic invertebrate assemblage is also present.	
Evaluation		
Value	High (Although the area is mainly improved and arable land there are some very significant features in the area including the river Severn, and the Montgomery canal which is of special interest because it supports aquatic, emergent and marginal plant communities of exceptional richness, including a large population of the internationally rare and threatened floating water plantain Luronium natans and a several other rare and scarce water plants. There are also some traditional species rich hay meadows in the area. The existence of hedges and mixed land use all contribute to this areas richness and its High value.)	
Condition	Good (the information and air photography suggests a good condition although a site visit would be needed to confirm this.)	
Trend	Constant	
Description		
If yes, which habitats of international importance?	Lowland hay meadows	
If yes, which BAP habitats?	Ancient and/or Species Rich Hedgerows Lowland Meadows	
What are the dominant soil types? (specify up to 3 types)	Brown soils	
Monitoring		
What is the total land area within the boundary (in hectares)?	12481 ha	
Does this area have a special or functional link with an adjacent area?	Yes (The River Severn flows through this aspect area into MONTLUH101 Newtown and beyond into MONLTHO51.)	
Description		
If yes, which BAP habitats?	Eutrophic Standing Waters	
Recommendations		
Existing management	Generally Appropriate	
Principal management recommendations	Where the hedges are not stockproof in their own right and would benefit by maintenance work and replanting of gaps	
Guideline	Immediate (Manage and replant gaps in hedges) Medium Term (Manage a buffer zone alongside the river edge) Long Term (Replant woods especially alongside streams.)	
Monitoring		
Has the information ever been verified in the field?	No	
Aspect Area Boundary		
To what level was this information site-surveyed?	Level 3	
At 1:10,000, how much of the Aspect Area boundary is precise?	All	

What baseline information source was used for Aspect Area boundary mapping?	Aerial photographs
If OS Data was used, what was the scale?	1:10,000 and 1:25,000
What is the justification for the Aspect Area boundaries?	The boundary on the northwest side of the valley follow the break of slope to the south the boundary follows the larger meadows and arable fields with the smaller pastures of MONTLH056 following the rolling land to the east.
Bibliography	
MWT Dolydd Hafren Bird Monitoring 2002. Odonata Records MWT Casual Records CCW Priority Invertebrate Records Middletown Area Mammal Surveys CCW Montgomeryshire Potential SSSI Files CCW Montgomeryshire Potential SSSI Files CCW Montgomeryshire BAP Species Files MWT Casual Records Montgomery Canal Data MWT Llyn Coed-y-Dinas MWT Summer Bird Survey 2001 CCW Montgomeryshire Tir Gofal File Notes RSPB Records SSSI citations Wildlife trust reserve leaflets	
Assessment	
Additional Assessments	
Additional Comments	
Evaluation Matrix	
Evaluation Criteria: Priority Habitats	High (Although the area is mainly improved and arable land there are some very significant features in the area including the river Severn, and the Montgomery canal there are also some traditional species rich hay meadows in the area. The existence of hedges and mixed land use all contribute to this areas richness and its High value.)
Evaluation Criteria: Significance	High (Area contains small but extremely important example of certain habitats and a mosaic of land use.)
Evaluation Criteria: Opportunity	High (Replanting and managing hedges would significantly enhance the area.)
Evaluation Criteria: Expansion rates	Unassessed
Evaluation Criteria: Sensitivity	Unassessed
Evaluation Criteria: Connectivity/Cohesion	High (The are is tied together by the river and canal together with hedges where they exist.)
Evaluation Criteria: Habitat Evaluation	High (A number of significant habitats occur from traditional hay meadows to the Montgomery canal)
Evaluation Criteria: Importance for key species	High (Very large numbers of important species are recorded form the area.)
Evaluation Criteria: Overall Evaluation Habitat and Species	High (Although the area is mainly improved and arable land there are some very significant features in the area including the river Severn, and the Montgomery canal which is of special interest because it supports aquatic, emergent and floodplain species. The area also contains some traditional species rich hay meadows and threatened floating water plantain Luronium natans and a several other rare and scarce water plants. There are also some traditional species rich hay meadows in the area. The existence of hedges and mixed land use all contribute to this areas richness and its High value.)
Description	
If yes, which species? (for each of the species, also note the source of information)	Skyllark Alauda arvensis 2002 MWT Dolydd Hafren Bird Monitoring 2002 High Brown Frillinary Argyrnis adippe 1987 Odonata Records Water Vole Arvicola terrestris 2000 MWT Casual Records White-Clawed Crayfish Austropotamobius pallipes 1988 CCW Priority Invertebrate Records Brown Hare Lepus europaeus 2003 Middletown Area Mammal Surveys Bullfinch Pyrrhula pyrrhula 1997 CCW Montgomeryshire Potential SSSI Files Linnet Carduelis cannabina 2002 MWT Dolydd Hafren Bird Monitoring 2002 Pricky Sedge Carex muricata 1996 CCW Montgomeryshire Potential SSSI Files Reed Bunting Emberiza schoeniclus 2002 MWT Dolydd Hafren Bird Monitoring 2002 Red Hemp-Nettle Galeopsis angustifolia 1986 Ad hoc records Great Crested Newt Triturus cristatus 1999 CCW Montgomeryshire BAP Species Files Juniper Juniperus communis 1994 MWT Casual Records Red-backed Shrike Lanius ludovicianus 2005 RSPB Records Floating Water-plantain Luronium natans 2001 MWT Dolydd Hafren Bird Monitoring 2002 Common Frog Pelodytes punctatus 2001 MWT Dolydd Hafren Bird Monitoring 2002 Tree Sparrow Passer montanus 2002 MWT Dolydd Hafren Bird Monitoring 2002 Common Fan-Foot Pechipogon stictijlata 1987 MWT Casual Records Grey Partridge Perdix perdix 1996 Dolydd Hafren Monitoring 1996 Grass-Wrack Pondweed Potamogeton compressus 2001. Montgomery Canal Data Bullfinch Pyrrhula pyrrhula 2002 MWT Dolydd Hafren Bird Monitoring 2002 Lesser Horseshoe Bat Rhinolophus hipposideros 1998 CCW Montgomeryshire BAP Species Files Brown Trout Salmo trutta fario 2000. Ad hoc records Skylark Alauda arvensis 2003 CCW Montgomeryshire Tir Gofal File Notes Song Thrush Turdus philomelos 1997 CCW Montgomeryshire Potential SSSI Files Turtle Dove Streptopelia turtur 1982 MWT Casual Records Tree Sparrow Passer montanus 1997 CCW Montgomeryshire Potential SSSI Files Song Thrush Turdus philomelos 2002 MWT Dolydd Hafren Bird Monitoring 2002 Lapwing Vanellus vanellus 2002 MWT Dolydd Hafren Bi
Evaluation Matrix	
Justification of overall evaluation	Although the area is mainly improved and arable land there are some very significant features in the area including the river Severn and the Montgomery canal which is of special interest because it supports aquatic, emergent and floodplain species. The area also contains some traditional species rich hay meadows and threatened floating water plantain Luronium natans and a several other rare and scarce water plants. There are also some traditional species rich hay meadows in the area. The existence of hedges and mixed land use all contribute to this areas richness and its High value.
Recommendations	
Existing management remarks:	Area is grazed, cut for hay and silage and has arable farming.
Monitoring	

Date of monitoring?	2016-01-15
Monitoring undertaken by	Stages 1, 2 and 3 change detection, field verification and amendment completed by Environment Systems in conjunction with the local planning authority, Quality Assurance completed by TACP.
Has this record been updated following monitoring work?	

Visual and Sensory	
Aspect Area Name	Crewgreen to Forden Hill and Scarp
Aspect Area Classification	Upland/Hills, Lower Plateau & Scarp Slopes/Hillside & Scarp Slopes Grazing (Level 3)
Aspect Area Code	MNTGMVS370
Date Of Survey : 09/02/2004	



Description	
Physical Form And Elements : Topographic Form?	Hills/Valleys
Physical Form And Elements : Landcover Pattern?	Field Pattern/Mosaic
Aesthetic Qualities: Scale?	Medium
Aesthetic Qualities: Sense of Enclosure?	Open
Aesthetic Qualities: Diversity?	Simple
Aesthetic Qualities: Texture?	Medium
Aesthetic Qualities: Lines?	Angular
Aesthetic Qualities: Colour?	Muted
Aesthetic Qualities: Balance?	Balanced
Aesthetic Qualities: Unity?	Neutral
Aesthetic Qualities: Pattern?	Organised
Aesthetic Qualities: Seasonal Interest?	Mixed
Other Factors : Level of Human Access?	Infrequent
Other Factors : Night Time Light Pollution?	Slight (Scattered small villages and farmsteads - the main source of light pollution is "borrowed" from within the River Severn Floodplain at Welshpool)
Other Factors : Use of Construction Materials?	Generally Appropriate
What materials? Give Details:	N/A
There are attractive views...	...both in and out (To surrounding rolling and upland landscapes)
There are detractive views...	...within (Criggion Quarry workings)
Perceptual and Other Sensory Qualities	Attractive Unattractive (Criggion Quarry workings) Safe Settled
What is the sense of place/local distinctiveness	Moderate (N/A)
Evaluation	
Value:	Moderate (N/A)
Condition:	Good (N/A)
Trend:	Constant
Recommendations	
Define the key qualities that should be conserved:	
Balance between mixed farmland practices to maintain field pattern distribution	

Define the key qualities that should be enhanced:	Increase proportion of hedgerow trees within field boundaries
Define the key qualities that should be changed:	Expansion of quarrying/excavation works and associated development over adjacent farmland
Define the key elements that should be conserved:	N/A
Define the key elements that should be enhanced:	Hedgerow boundaries to improve diversity of vegetation / management type
Define the key elements that should be changed:	N/A
Principal management recommendation:	Maintain as existing
Tolerance To Change	
Are there any significant threats to the current integrity and condition of the visual & sensory features of the area?	
Yes (Criggion Quarry and Clay pits at Cefn Brick Works)	
Aspect Area Boundary	
To what level was this information site-surveyed?	Level 3
At 1:10,000, how much of the Aspect Area boundary is precise?	All
What baseline information source was used for Aspect Area boundary mapping?	Other (OS Landline and Aerial Photographs)
If OS Data was used, what was the scale?	1:10,000 and 1:25,000
What is the justification for the Aspect Area boundaries?	Consistency in field pattern and land use between 150m and 300m
Bibliography	
List the key sources used for this assessment	
Montgomeryshire Landscape Assessment (1992)	
Assessment	
Additional Assessments	N/A
Additional Comments	N/A
Evaluation Matrix	
Evaluation Criteria: Overall Evaluation	Moderate (N/A)
Justification of overall evaluation	Typical example of farming practices and fields patterns displaying hedgerow boundaries and woodland blocks in lower lying areas that could benefit from enhancement through additional planting along boundaries = Moderate
Evaluation Criteria: Scenic quality	High (N/A)
Evaluation Criteria: Integrity	Moderate (N/A)
Evaluation Criteria: Character	Moderate (N/A)
Evaluation Criteria: Rarity	Low (N/A)
Description	
Summary Description	Forms the topographical transition between the upland peaks of Breidden Hill and Long Mountain and the floodplain of the River Severn. Largely west facing and typified by a patchwork of grazed and some low intensity arable farming with managed hedgerows, occasional patches of woodland lie along stream courses and in lower lying areas.
Physical form and elements: Settlement pattern	Scattered Rural/Farm
Physical form and elements: Boundary type	Managed Hedge
Recommendations	
Guideline	Long Term (Maintain balance between different farming practices) Medium Term (Limit expansion of quarrying works at Criggion Quarry) Medium Term (Limit expansion of clay extraction at Cefn Brickworks) Long Term (Restoration of quarried and clay extraction works to emulate existing)
Existing management	Generally Appropriate
Existing management remarks:	Mixture of grazing and limited arable farming with some woodland patches throughout the aspect area
Monitoring	
Has the information ever been verified in the field?	Yes (N/A)
Does this area have a special or functional link with an adjacent area?	Yes (Transitional landform between Breidden Hill, Long Mountain and the River Severn)
Date of monitoring?	2015-02-06
Monitoring undertaken by	Stages 1, 2 and 3 change detection, field verification and amendment completed by White Consultants, in conjunction with the Planning authority, Quality Assurance completed by Land Use Consultants.

SURVEY DETAILS FOR MNTGMCLS044

Area Usage ID: MNTGMCLS044
Aspect: Cultural Landscapes Services
Area Core given to: Fforest Hill and Stary
Region: Montgomeryshire
Survey ID: MNTG030403-05
Level 1: 1 (plaid)
Level 2: 2 (darker green)
Level 3: 3 (Hillside & Stary Slips Green)

Details

- Q1 - Night-time light pollution
- Slight
- Q2 - Attractive views
- ... both in and out
- Q3 - What are attractive views of/for?
- No Answer
- Q4 - Perceptual and sensory qualities
- No Answer
- Q5 - Additional cultural, program and sensory qualities and comment
- No Answer
- Q6 - What? Tripartite Area assessment (Zone B signal/cant/disturbance; Zone C: some disturbance; Undisturbed; Urban)
- Mixes of: Undisturbed; Zone C; Zone B
- Q7 - International Dark Sky Reserve or Dark Sky Reserve
- No
- Q8 - Sense of place/ local distinctiveness
- Moderate
- Q9 - What contributes to a sense of place/distinctiveness?
- No Answer
- Q10 - Visual and sensory landscape evaluation
- Moderate
- Q11 - Justification of Visual & Sensory Landscapes value
- Typical examples of farming practices and field patterns, depicting hedgerow boundaries and woodland blocks in lower lying areas that could benefit from enhancement through additional planting along boundaries - Moderate
- Q12 - Scenic quality
- High
- Q13 - Character
- Moderate
- Q14 - Geographical landscape evaluation
- Mixes of: Moderate; High or outstanding
- Q15 - Landscape features evaluation
- Over 75% (High or outstanding)
- Q16 - Historic Landscapes evaluation
- Over 75% (High or outstanding)
- Q17 - Are there any particular artistic representations associated with the landscape area?
- No Answer
- Q18 - Are there any folklores/ legends associated with the landscape area?
- No Answer
- Q19 - Are there any contemporary traditions associated with the landscape area?
- No Answer
- Q20 - World Heritage Site potential
- No
- Q21 - Feeling of Welsh national identity in the authority
- Approximately 50% of people in the area identify as Welsh. <https://statistic.gov.wales/Catalogue/Equality-and-Diversity/National-Identity/national-identity-by-year-identity>
- Q22 - Welsh language in the authority
- Approximately 20% of people in the area speak Welsh. <https://statistic.gov.wales/Catalogue/Quality-of-life/Diversity/National-Identity/national-identity-by-year-identity>
- Q23 - HIER codes
- 161
- Q24 - Cultural Heritage comment
- No Answer
- Q25 - % HIER classes represented 3+ %
- The historic landscape within this area is composed of C11 1.2510%, C12 22.4096%, C13 10.1620%, C14 6.3306%, C15 6.531%, C16 5.51%, C17 0.7466%, C18 1.020%, C19 2.2604%, C20 1.140%, C21 1.140%, C22 1.140%, C23 1.140%, C24 1.140%, C25 1.140%, C26 1.140%, C27 1.140%, C28 1.140%, C29 1.140%, C30 1.140%, C31 1.140%, C32 1.140%, C33 1.140%, C34 1.140%, C35 1.140%, C36 1.140%, C37 1.140%, C38 1.140%, C39 1.140%, C40 1.140%, C41 1.140%, C42 1.140%, C43 1.140%, C44 1.140%, C45 1.140%, C46 1.140%, C47 1.140%, C48 1.140%, C49 1.140%, C50 1.140%, C51 1.140%, C52 1.140%, C53 1.140%, C54 1.140%, C55 1.140%, C56 1.140%, C57 1.140%, C58 1.140%, C59 1.140%, C60 1.140%, C61 1.140%, C62 1.140%, C63 1.140%, C64 1.140%, C65 1.140%, C66 1.140%, C67 1.140%, C68 1.140%, C69 1.140%, C70 1.140%, C71 1.140%, C72 1.140%, C73 1.140%, C74 1.140%, C75 1.140%, C76 1.140%, C77 1.140%, C78 1.140%, C79 1.140%, C80 1.140%, C81 1.140%, C82 1.140%, C83 1.140%, C84 1.140%, C85 1.140%, C86 1.140%, C87 1.140%, C88 1.140%, 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- Q29 - Archaeological Working Briefs
- 2
- Q30 - Archaeological Excavation
- 5

APPENDIX 9

Powys Landscape Character Assessment Study (2008) (Extract)



Powys Landscape Character Assessment



prepared by



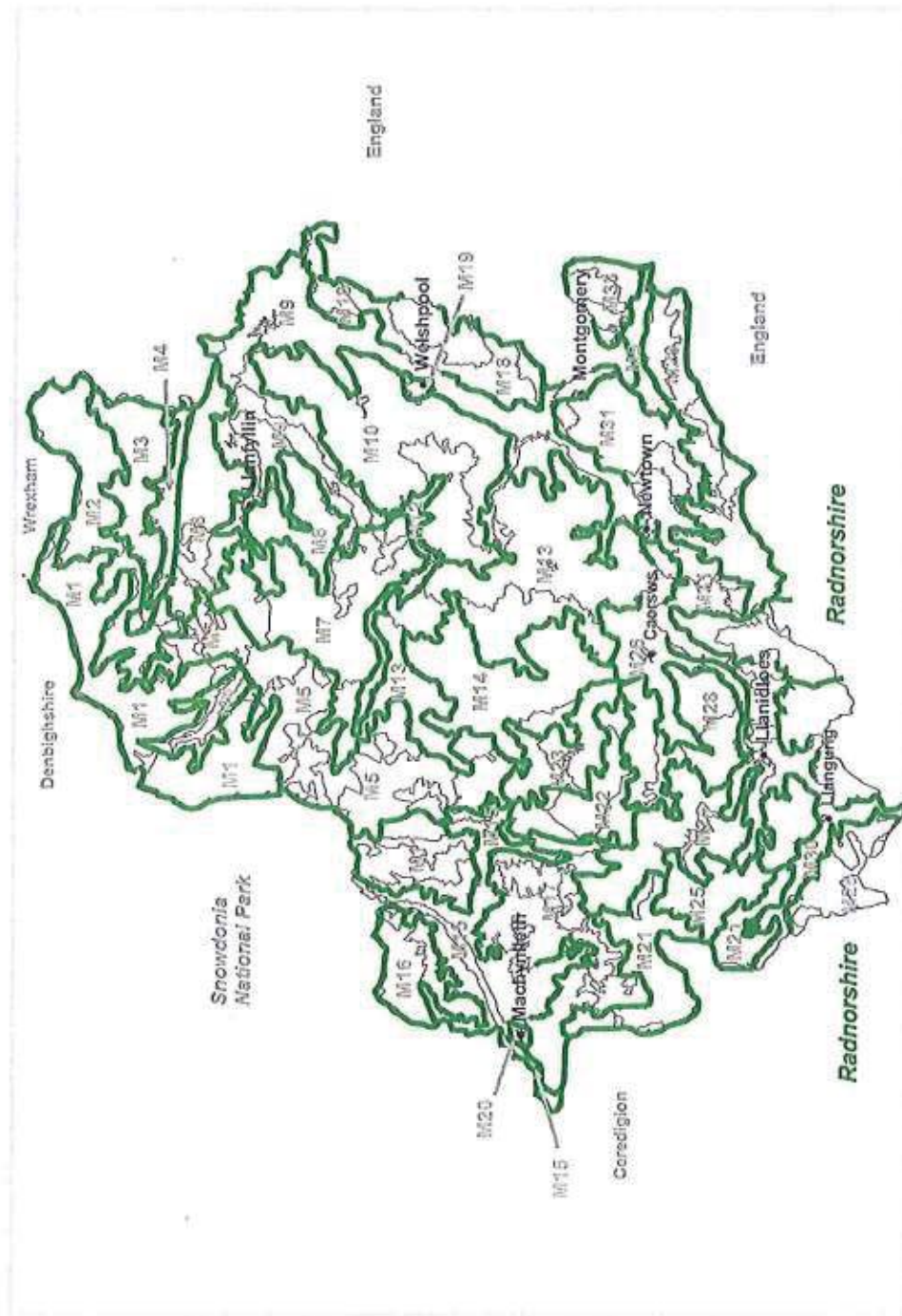
John Campion Associates Ltd
2 Redwood Drive
Aston on Clun
Craven Arms
Shropshire SY7 8EZ

MARCH 2008

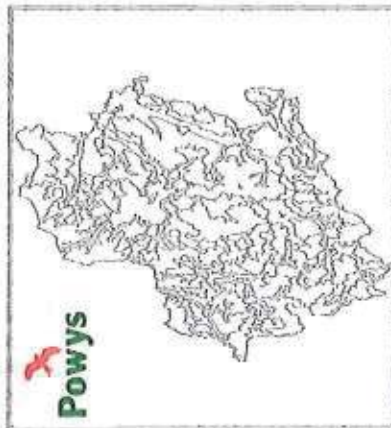
March 2008

MONTGOMERYSHIRE LANDSCAPE CHARACTER AREAS

DATA SHEETS



POWYS - MONTGOMERYSHIRE LCA M18- Long Mountain/Breidden Hills



Location, Context and Physical Characteristics

An area of managed upland grazing, lying to the east of the River Severn and reaching to the Wales-England border, this area is distinguished from its surroundings by its low incidence of individual or hedgerow trees and its marked rectilinear field pattern.

Visual and Sensory Characteristics

Tree cover is variable. There are a few significant blocks of mixed woodland on lower slopes that contribute to the visual diversity and texture of the landscape, but the dominant woodland cover on the upper slopes and high ground is large blocks of coniferous plantation woodland. The course of the old Roman road runs northwards from Farden along the crest of Long Mountain, with glimpsed views down to the Severn valley to the north west and from the minor roads running down into the valley.

Vegetation and Habitat Characteristics

In the south and east, a mixed area of small fields some grassland and some arable. Species-rich hedgerows in the area and streams increase the value of the area for common species; a number of local BAP species are recorded. There are also some traditional species rich hay meadows. Important habitats present are lowland hay meadows, ancient/species rich hedgerows, lowland mixed deciduous woodland, dry grasslands and scrublands, base-rich scree and dry oak-dominated woodland and eutrophic standing waters. Important species include linnet, skylark, song thrush, spotted flycatcher; lesser horseshoe bat, water vole; great crested newt; white-clawed crayfish; argant and sable moth and high brown fritillary butterfly. In addition, there are many rare plants in two SSSI's, at Breidden Hills and on Moel-y-Gofia, to the west of Middletown, is an area of important ancient semi-natural woodland which is a SSSI extending to almost 71 hectares.

Geological Characteristics

Eastern area characteristic of most of the area is a distinct escarpment of Ludlow (Upper Silurian) rocks with a steep western face and plateau-like top, with steep, incised stream valleys that flow away to the south-east. An area of relatively low undulating topography flanking the W and SW sides of Long Mountain and probably dominated by a range of drift deposits lies to the west, with a very distinctive, very steep-sided upland block dominated by dolerites in the north. The lower part of the scarp face of Long Mountain is generally moderately steep, but levelling-out at its base; mainly Wenlock (Middle Silurian) mudrocks, with some Llandovery (Lower Silurian) at the base.

Map Notation:

LCA defined by
National Park
Boundary

LCA Boundary

LCA Boundary
defined by

County Boundary



Evaluation & Recommendations

LCA No.	Character Area	Visual & Sensory Aspect Areas	Geological Landscape Aspect Areas	Landscape Habitats Aspect Areas	Historic Landscape Aspect Areas	Cultural Landscape Aspect Areas
M18	Long Mountain/Breidden Hills	301 - High	422 - High 471 - Moderate 697 - Outstanding 823 - Moderate	033 - High 035 - Outstanding 036 - Moderate	116 - ? 310 - ? 514 - ? 707 - ? 785 - ? 966 - ? No Evaluation in Aspect Data	055 - Moderate

Special Qualities (Key Landscape Characteristics)

- The balance of upland grazed plateau, rectilinear field pattern with managed hedge lines and woodland blocks is unusual within Montgomeryshire.
- Major landscape feature includes nationally important geology (Buttington Brickworks SSSI) and a regionally important site
- This aspect area contains both Breidden Hills SSSI and Moel y Goffa SSSI, together with the small fields and woodlands surrounding the area, separating it from the larger, more-intensively used fields of the valley floor. The area is of outstanding importance for its uncommon plants.
- The Middletown Breidden area is mixed culturally. Having long been a centre for mineral extraction, and still with a large active quarry at Criggion in the far north of the LCA, its dominant cultural essence is now as a destination for a wide variety of leisure activity - camping and caravan parks, golf centre, commando painting, quad-trekking, horse riding and carriage driving and walking. Thus the former dominant industry of mineral extraction is considered to be subordinate to leisure as the most prominent contemporary cultural influence
- There are Registered Landscapes of Special Historic Interest here:
 - Leighton Hall* is listed as Grade I, being a high Victorian formal garden with ornamental woodland and parkland. It is described as a grand Victorian country house with contemporary garden of exceptional historic interest by the well known garden designer Edward Kemp. The estate was run as a model farm and has an exceptional collection of Victorian agricultural buildings. There are woodlands of high arboreal interest, especially the Charles Ackers Redwood Grove and Naylor pinetum.
 - Maesfryn*, at Trevern, is Grade II, being a medium-sized Georgian house and small formal garden. It is described as being a good example of a compact and largely intact gentleman's residence with an unusual gazebo and grotto in the garden, in a fine south-facing situation.
 - Any management of the landscape within these sites or having an effect upon their essential settings must take account of their landscape significance
- The southern part of the area is included within the *Vale of Montgomery Registered Landscape of Outstanding Historic Interest in Wales*. The Vale of Montgomery straddles the Wales-England border and contains remnants of fortifications, boundaries, settlements and field systems, from prehistory to the medieval period, reflecting the ebb and flow of conflicting claims to the land. The area has a high concentration of defensive works from the prehistoric to the medieval periods. Notable features are Offa's Dyke, a Roman fort at Ffordon Gaer, the Roman road linking this fort to Wroxeter and several medieval motte and bailey castles.

LANDMAP Aspect Evaluation Terms:

Outstanding: Of International or National Importance

High: Of Regional or County Importance

Moderate: Of Local Importance

Low: Of Little or No Importance

(The reference numbers in the table refer to the discrete Aspect Areas identified)

Discernible Landscape Trends

- No noticeable trend away from coniferous woodland plantations
- Decline in traditional field boundary hedgerow management

Historic and Cultural Characteristics

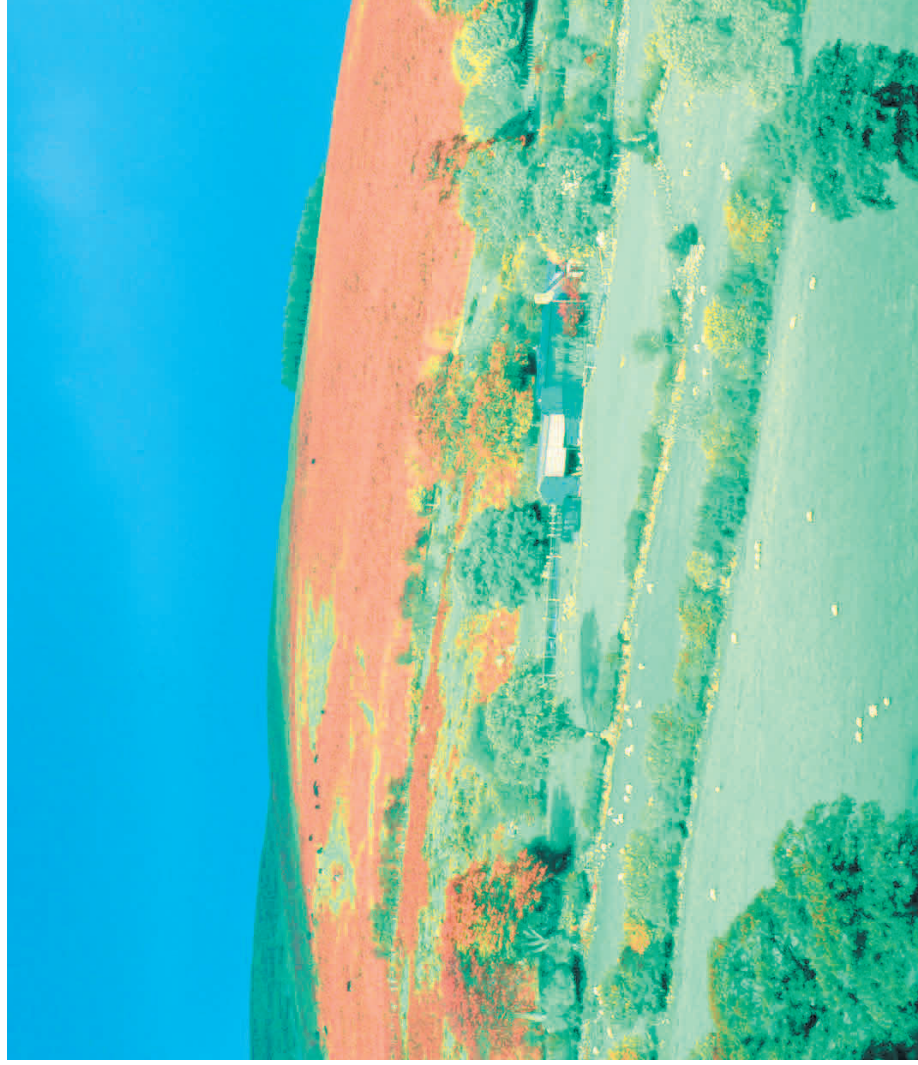
Mixed, irregular fieldscapes on the flanks of Long Mountain as far south as Forden, representing a combination of piecemeal enclosure from medieval times and later enclosure of hill slopes and former lowland commons. Strips of remnant ancient broadleaved woodland and 20th-century conifer plantations along some stream valleys. Groups of Neolithic to Bronze Age hilltop burial mounds and scatter sites. Later prehistoric hillfort of Beacon Ring and scattered, possibly contemporary small defended enclosure sites. Scattered, small defended enclosures of later prehistoric and possibly Roman date and medieval earthwork castles and moated sites. The Roman road from Wroxeter to Ffordon Gaer runs along part of the southern boundary of the area and the area is crossed by the line of the early medieval Offa's Dyke. Medieval to late medieval church sites at Trelystan and Forden. Dispersed farms of early medieval, medieval and post-medieval origin. Probably late 18th and 19th-century straight-sided fieldscapes and area of unenclosed registered common land running along the summit of Long Mountain. Abandoned medieval upland house sites. Small nucleated church settlements possibly of medieval origin at Buttington and Middletown, and small nucleated settlements of 18th and 19th-century origin at Forden, Kingswood, and Cilcewydd and former 18th-century farmhouse site in a rural setting near the southern margin of the area. Contains SMR sites/SAMListed buildings/Conservation Areas/Registered Landscape of Historic Interest/Registered Historic Parks and Gardens.

The main line railway between Shrewsbury and the west coast of central Wales, and the main A458 from Shrewsbury to Welshpool pass through this LCA through the gap between Long Mountain and the Breidden Hills at Middletown.

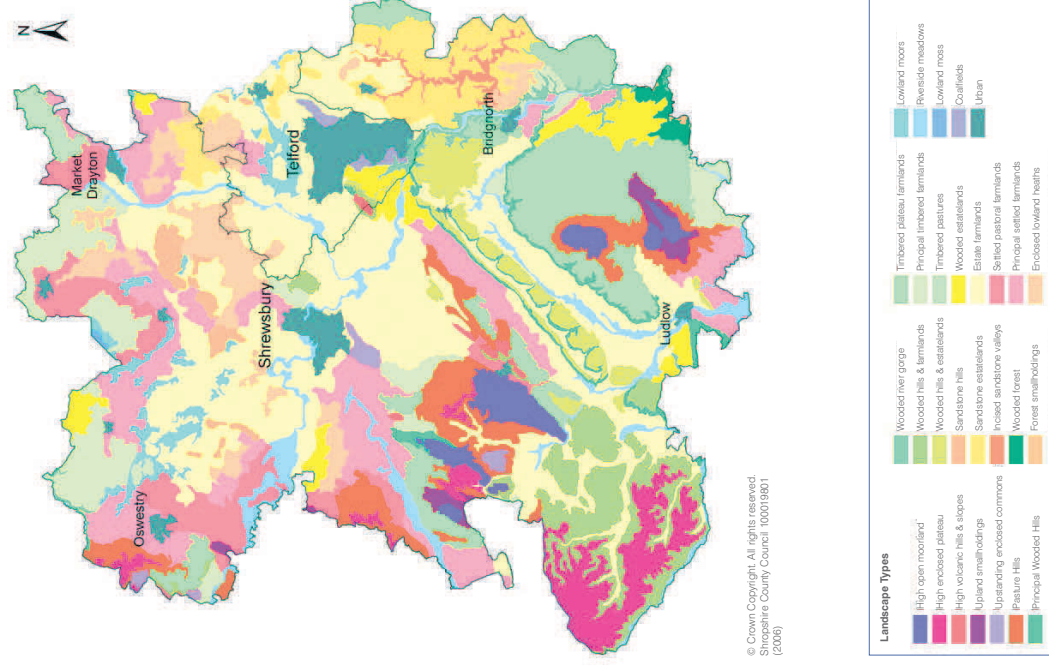
APPENDIX 10

The Shropshire Landscape Typology (2006)

The Shropshire Landscape Typology



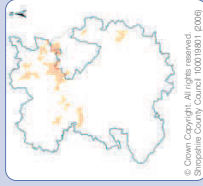
September 2006



Enclosed Lowland Heaths

Key Characteristics

- Undulating lowland
- Impoverished, freely draining soils
- Planned woodland character
- Dispersed settlement pattern

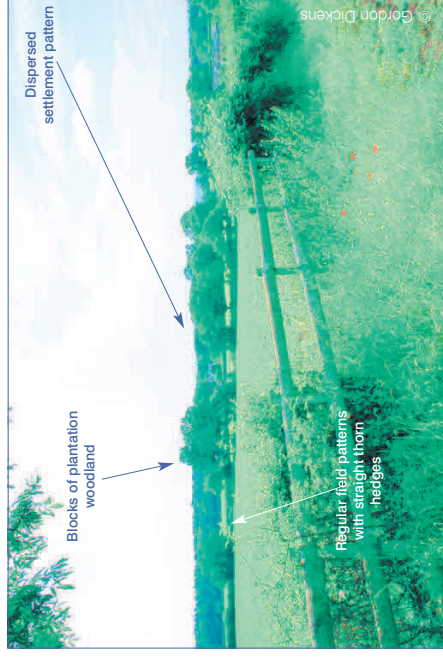


Description

Enclosed Lowland Heaths are gently rolling lowland landscapes that occur throughout northern and eastern Shropshire, in areas with predominantly sandy, impoverished soils. Localised areas of semi-natural heathland vegetation survive in a small number of locations, for example on Prees Heath in north Shropshire, where the only population of Silver-studded Blue butterflies in the West Midlands is found. Overall, however, these are medium to large scale agricultural landscapes, which have evolved from extensive areas of open heathland and 'waste' (common rough pasture) over the past three or four centuries. They are characterised by an ordered pattern of rectilinear fields with thorn hedges, straight roads and scattered brick farmsteads. Clusters of wayside cottages, with

associated blocks of smallholdings, are also common. Regular plantation woodlands form the most significant woodland component. Hedgerow trees are generally fairly sparse, although in some places linear bands of trees along water courses also make an important contribution. This pattern of tree cover creates a mixture of framed and lightly filtered views. Settlement largely comprises a low to medium density dispersal of farmsteads and cottages, although occasional villages and hamlets are present in some locations.

The origins of the extensive tracts of open heathland, woodland and wood pasture, which existed until the early modern period, probably extended back to the Bronze Age. Common rights of access to the important resources that such areas of waste and woodland provided- such as rough grazing



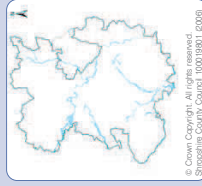
for sheep, timber and fuel – were maintained by the communities in the surrounding townships. In addition, the area to the east of Bridgnorth formed the core of the medieval royal forest of Morfe, although by the 14th century grazing pressures on the associated commons had significantly reduced the browse available for the king's deer. Limited areas of open fields existed around some of the villages and hamlets, the enclosure of which was underway by the later medieval period. Enclosure of the surrounding waste also began by this period, most notably on the extensive tract of heathland between Ford and Westbury, to the west of Shrewsbury. Both forms of enclosure produced irregular field patterns, which can still be seen in some areas. From the 16th century

onwards small holders began to encroach on some of the heathlands, creating an intricate pattern of wayside cottages and small, sub-regular or rectilinear fields. Good examples occur at Halfway House, to the West of Shrewsbury, and Prees Green, north-east of Wem. Very substantial expanses of open heathland remained, however, and the enclosure of these areas was completed during the 18th and 19th centuries. This process gave rise to the characteristic pattern of geometric fields, plantation woodlands, straight enclosure roads and new brick farmsteads. During the later 20th century, intensive arable cultivation replaced traditional mixed farming practices on many of the Enclosed Lowland Heaths, resulting in the enlargement of many fields.

Lowland Moss

Key Characteristics

- Flat, lowland topography
- Large scale with open views
- Peat soils
- Peat cuttings
- Unsettled



Description

In Shropshire this landscape type occurs solely at Fenn's/Whixall Moss, along the national boundary with Wales. This is a large scale, open landscape which forms one of the largest and most southerly raised peat bogs in Britain.

Analysis of the underlying sediments has demonstrated that peat began to form around 5500 BC, within a shallow depression in the glacial drift deposits that blanketed this part of north Shropshire. Acid bog/ mire habitats remain dominant and are associated with a broad range of mire vegetation and invertebrate species, as well as good watervale populations.

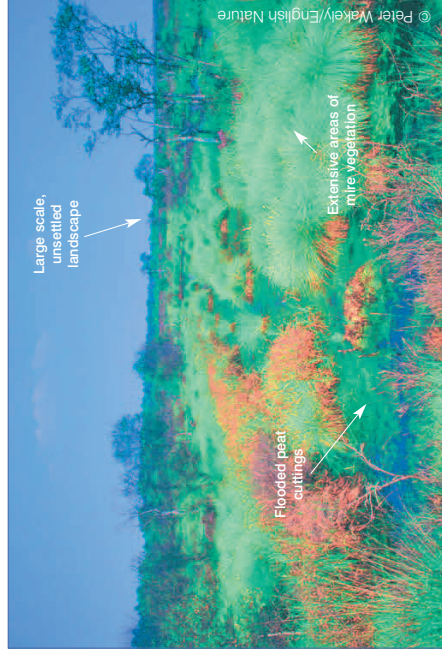
Woodland cover is restricted to a large block of conifer plantation

at the northern (Welsh) ends of the Moss, together with some secondary woodland on the peripheries.

This remains an unsettled, secluded landscape, where peat cuttings provide the main evidence for human activity.

Peat formation at Fenn's/ Whixall Moss appears to have continued until the later Bronze Age, when the moss was colonised by pine forest. However, this episode ended with the return of wetter conditions and the corresponding resumption of peat formation.

The existing unenclosed part of the Moss lay at the centre of a more extensive tract of 'waste' (common rough pasture) during the medieval period. By the late 16th century documentary sources reveal the existence of a



well-developed system of common peat cutting rights, which may well have had earlier origins.

The principal drains appear to have been cut in the 18th century, prior to the construction of the Ellesmere canal across the moss at the turn of the 19th century. The Whixall Moss Enclosure Act 1814 resulted in the cutting of a further series of drains, although some of the land enclosed at this time is now reverting back to mire.

Within the unenclosed parts of the moss, commercial hand cutting of peat for the local market began in the 1850s and continued until the 1920s, after which larger scale operations

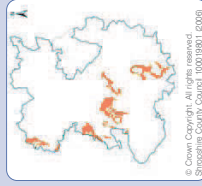
were initiated. Intensive mechanised extraction began after the World War II and forestry plantations were established at the southern and northern ends of the moss.

Peat extraction continued until the site was purchased by the Nature Conservancy Council (now Natural England) in the 1990s. The moss is now managed for its biodiversity value and is subject to a programme of re-wetting, as part of which the incongruous plantation at the southern end of the moss has been felled.

Pasture Hills

Key Characteristics

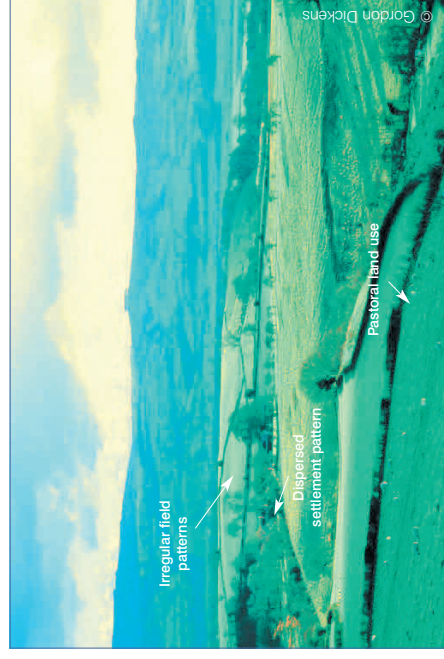
- Prominent, sloping topography
- Hedge fields with mainly ancient origins
- Pastoral landuse
- Dispersed settlement pattern
- Medium to large scale landscape with filtered views



Description

The Pasture Hills are prominent, sloping landscapes that occur around the fringes of higher ground in parts of the Oswestry Hills, on Long Mountain, the northern and western flanks of The Long Mynd, along Yell Bank north-east of Church Stretton, on the north slopes of the Kerry Ridgeway, and on the Cleve Hills. The mixed but generally impoverished soils are used for pastoral production. Some hillsides retain areas of unenclosed moorland and rough pasture, which often support good populations of ground nesting birds. Relict ancient woodland is found throughout most of these landscapes, particularly along watercourses and on the steeper slopes. Regular blocks of conifer plantation also exist in some

places, particularly on the eastern side of Brown Cleve Hill. Further tree cover is provided by scattered hedgerow trees, mainly Ash or oak, set within species rich hedgerow networks that define ancient, irregular field systems. Unimproved hay meadows, associated with species such as Common Knapweed, Betony and Devil's-bit Scabious, survive more frequently than in other landscapes types. The settlement pattern is primarily one of dispersed farmsteads and wayside cottages, although a number of small hamlets and villages also exist in some areas, particularly on the northern slopes of The Long Mynd. Together these elements combine to form small-medium scale landscapes, which offer filtered views through hedgerows and trees.



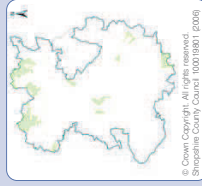
These landscapes have complex, varied histories. During the medieval period, small open fields existed in a number of places, particularly around the older settlement foci on the slopes of The Long Mynd and the Cleve Hills. The field patterns in these areas indicate that the enclosure of these fields was undertaken on a piecemeal basis; a process that was largely complete by the beginning of the 17th century. In the early Middle Ages the areas of woodland and open rough pasture were much larger. The 'assart' field patterns (i.e. those cleared and enclosed directly from woodland) present in some areas - for example, on the steep eastern slopes of Linley Hill - suggest that woodland clearance was underway by the later medieval period. The extent of the common

rough grazing land was also reduced through successive phases of enclosure. The earliest are represented by rectilinear or irregular 'intake' fields on the upper slopes, which were enclosed from the margin of the common in the early modern period. Partially contemporary with these are the squatter encroachments, with their associated cottages and smallholdings, which were established from the 16th century onwards. The final phases of enclosure took place in the 18th and 19th centuries, and are represented by relatively localised areas of geometric fields subdivided by straight thorn hedges. Examples include Prolley Moor, to the east of Wentnor, Smeethcott Common, near Pockescott and the upper slopes of Yell Bank.

Principal Timbered Farmlands

Key Characteristics

- Rolling lowland with occasional steep sided hills
- Relic ancient woodland
- Hedged fields with scattered hedgerow trees
- Predominantly dispersed settlement pattern
- Small to medium scale landscapes with filtered views



Description

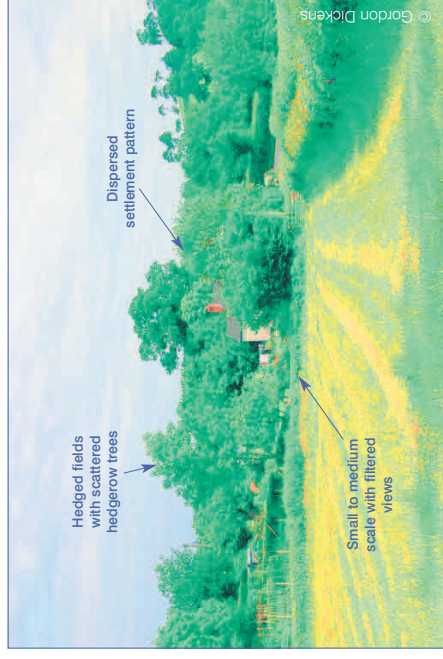
This landscape type occurs throughout much of Shropshire, with notable concentrations along the northern boundary with Cheshire, and to the south of Shrewsbury. They are predominantly rolling lowland landscapes, with occasional steeply undulating valley sides, and are characterised by a mosaic of agricultural land.

Tree cover, in the form of dense stands of streamside trees, scattered hedgerow trees, and small to medium sized woodlands play an important role in structuring these landscapes, creating a small to medium scale and filtered views. Much of the woodland has an ancient

character, although some woods have been replanted with conifers. Oak and Ash represent the main hedgerow tree species, whilst alder and willow dominate along watercourses.

The settlement pattern typically comprises of a medium to high density dispersal of farms and wayside cottages, with occasional hamlets and small villages.

Like the Wooded Farmlands, much of the agricultural land within this type was gradually enclosed from extensive tracts of woodland and 'waste' (common rough pasture) during the medieval and early modern periods. This has produced an intricate countryside, characterised by a network of



winding lanes, scattered farmsteads, and small irregular fields. Examples include the areas around Buttonbridge, on the edge of the Wyre Forest, and Coptivney, to the north-west of Ellesmere.

Localised open fields existed around the larger settlement foci, the piecemeal enclosure of which had generally been completed by the 17th century.

In some places, for example around Exfords Green and Longden Common, to the south of Shrewsbury, and Ebrewood to the north-east of the town, sizable areas of common wood pasture and rough grazing land survived into the early modern period. Encroachment by smallholders around the edges of

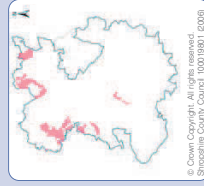
these areas, between the 16th and 19th century, account for the small concentrations of wayside cottages that occur in some places. Enclosure of the remaining area of common land was completed in the 18th and 19th centuries, creating a regular pattern of rectilinear fields and straight roads.

During the later 19th and 20th century, conifer plantations were established in some locations, occasionally on the site of older woodlands. Where more favourable soils exist, the introduction of intensive arable farming in the later 20th century has resulted in field enlargement, creating more open conditions and a larger scale landscape.

Settled Pastoral Farmlands

Key Characteristics

- Heavy, poorly drained soils
- Pastoral land use
- Scattered hedgerow trees
- Irregular field pattern
- Small to medium scale landscapes



Description

Located mainly in the northern and western parts of the county, Settled Pastoral Farmlands are lowland agricultural landscapes. Heavy, often poorly drained soils are one of the defining characteristics of this landscape type and have traditionally been associated with livestock farming. This land use means that the historic pattern of small to medium, sub-regular, hedged fields has been retained in most places.

Whilst small, relict pieces of ancient woodland are present in some areas, tree cover is largely provided by scattered hedgerow oaks and Ash trees, along with linear bands of willows and alders along watercourses. Although these are not as densely distributed as they are in

the Timbered pastures, they can be present in significant numbers and, combined with the field size, generate a small to medium scale landscape with predominantly filtered views.

A medium to high density dispersal of farmsteads and wayside cottages, linked by a sinuous network of lanes, represents the prevailing settlement pattern. However, occasional hamlets and small villages also exist in some areas, for example around Kinnerley, south-west of Oswestry.

The irregular field patterns within these landscapes have varied origins. Where the settlement pattern is more clustered, many of the fields derive from the informal, piecemeal enclosure of open fields during the late medieval and early modern



period. This process may have been encouraged by growing specialisation within the agricultural economy, particularly in northern Shropshire where dairying farming became increasingly important during this period.

Beyond the open fields, for example around Winnington Green, near Middlesbrough, and to the south of Maesbury, near Oswestry, the field patterns derives from a mixture of woodland clearance, together with intakes and encroachment in areas of former common rough pasture.

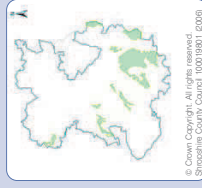
Between the mid-17th and mid-19th centuries rural industries became important in some areas, for example limestone quarrying around Llanymynech.

During the later 20th century agricultural intensification has resulted in widespread pasture improvement and the introduction of intensive arable cropping in some places. Overall, however, the historic field patterns remain largely unchanged.

Timbered Plateau Farmlands

Key Characteristics

- Upstanding plateau with rolling relief, dissected by valleys
- Linear ancient woodlands in valleys and dingles
- Mixed farming landuse
- Ancient pattern of irregular hedged fields
- Medium scale landscape



Description

This landscape type occurs widely in the Shropshire Hills and is mainly associated with sedimentary Ordovician rocks and Devonian Old Red Sandstones, with one outlier on the Carboniferous limestone of the Oswestry Hills.

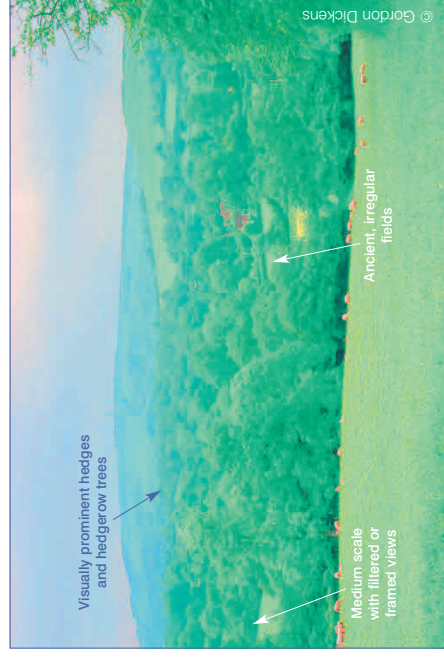
The upstanding, rolling topography increases the visual prominence of the hedgerows and woods, and creates a range of different vistas; from open views on plateau tops to framed views within the valleys. The woodlands essentially have an ancient semi-natural character, although much has been replanted. They vary in size, with wooded stream valleys being particularly characteristic of this

landscape type. Additional tree cover is provided by scattered hedgerow trees.

Farming tends to be mixed, with pasture – sometimes of unimproved character - dominant where the terrain is more difficult.

The settlement pattern consists primarily of dispersed farms, wayside cottages and hamlets, although small villages are present in some areas creating a more clustered pattern.

The Timbered Plateau Farmlands have a varied history of development. Small open fields existed around many of the hamlets and villages in the Middle Ages, which in most cases had been enclosed through piecemeal agreements by the beginning of the 17th



century. A particularly good example of such a field system can be seen around Clee St Margaret, on the western slopes of the Brown Clees.

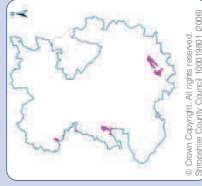
Much of the land beyond the open fields was enclosed directly from woodland or 'waste' (common rough pasture) in the medieval period, creating an organic pattern of hedged fields, winding lanes and scattered farmsteads. Examples include the area around Hope, south-west of Minsterley, and the area to the east of Akeley, on the eastern bank of the Severn.

Expanses of rough pasture and woodland appear to have persisted into the early modern period at higher elevations and along some watersheds. In these areas, the creation of smallholdings between the 17th and 19th centuries means that wayside cottages are more frequent, whilst 18th and 19th century enclosure of the remaining commons has created a more regular field pattern.

Upland Smallholdings

Key Characteristics

- Prominent, sloping topography
- Dispersed settlement pattern of wayside cottages
- Small hedged pasture fields
- Areas of unenclosed moorland



Description

These landscapes mainly occur around the fringes of high moorland in the Shropshire Hills, such as Catherton Common in the Cleve Hills and the area around Bentlawnt and Hemford, to the south-west of Minsterley. They are generally characterised by poorer soils that favour moorland and rough pasture habitats, which occur extensively in those areas which remain unenclosed.

Small irregular fields, mainly used for pastoral farming, form the main element within the field systems; some of which remain unimproved hay meadows. Their boundaries are defined by mixed hedgerows, often containing holly, rowan and gorse, as well as hawthorn and blackthorn. These fields mesh together with a

network of narrow winding lanes and dispersed wayside cottages with associated farmsteads. Such areas contrast strongly with a secondary, planned component in the field patterns, defined by straight thorn hedges and associated with a thin scattering of farmsteads.

These variations in landcover create differing views: open, medium to large scale within areas of unenclosed land and planned enclosure; small scale and intimate within the areas of smallholdings.

Along the edges of higher ground, particularly on the Cleve Hills and around White Grit and Hemford, many of the least productive areas within both types of field systems are in the process of reverting back to moorland and scrub.



During the Middle Ages these landscapes consisted of extensive areas of moorland and unimproved grassland which were used for common rough grazing. Those on the Cleve Hills and at Bentlawnt/ Hemford also lay within private chases.

The mineral wealth of many of these areas – limestone around Llanyrnnech Hill, lead around White Grit, coal and ironstone on the Clees – was exploited, in the latter two cases at least, from the medieval period onwards. These extractive industries expanded in the early modern period, and those employed within them began to establish smallholdings on the surrounding commons. These settlements achieved their maximum extent when the local

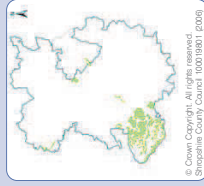
mines and quarries reached their peak in the 18th and 19th centuries.

Their decline over the course of the 20th century mirrored that of the industries upon which many of the smallholders were dependant, with the most marginal locations being abandoned altogether.

Wooded Hills and Farmlands

Key Characteristics

- Prominent, sloping topography
- Hedged fields with predominantly ancient origins
- Large discrete woodlands with ancient character
- Mixed farming land use
- Dispersed settlement pattern
- Medium scale landscapes with framed views



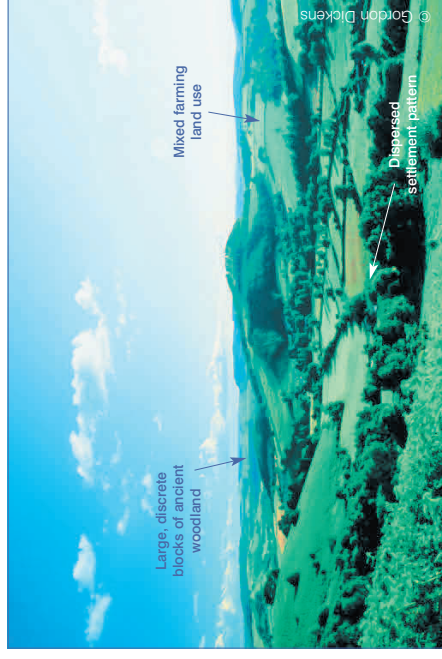
Description

This landscape type is most prevalent in the hills of the lower Clun valley, with two significant outliers on Haughmond Hill, near Shrewsbury, and around the fringes of the Wrekin, in the centre of the county. They are broadly similar to the Principal Wooded Hills, although the slopes in the Clun valley are more rounded due to the softer underlying Silurian sandstones, mudstones and siltstones. As a result farmland tends to be more extensive, with large, discrete blocks of woodland of ancient semi-natural character on the steepest slopes. Some of these woods have been significantly enlarged through the planting of conifers, particularly on the eastern side of the Clun Forest.

Limited areas of unimproved rough grassland and heathland also exist, such as Hopesay Common in south Shropshire, and the western side of Haughmond Hill near Shrewsbury.

The field patterns are predominantly ancient and irregular, with species-rich hedgerow networks. However, areas of planned fields with straight thorn hedges occur in some places, for example on the eastern slopes of Haughmond Hill, and on Brandhill to the east of Clunfunford, in south Shropshire.

The settlement pattern within this type is one of dispersed farmsteads, although a scatter of smaller hamlets also exists around the fringes of the Clun Forest.



The sloping topography gives rise to medium to large scale landscapes that offer framed, and sometimes filtered, views.

These landscapes have complex and diverse histories. During the medieval period many of the woods were held in common and managed for coppice or wood-pasture. At this time there was also more open rough pasture land. These commons were gradually reduced by successive phases of enclosure, and by the establishment of coniferous forestry plantations in the 19th and 20th centuries.

The older, irregular field patterns have varied origins. Around the hamlets, the form of the field boundaries indicates that they

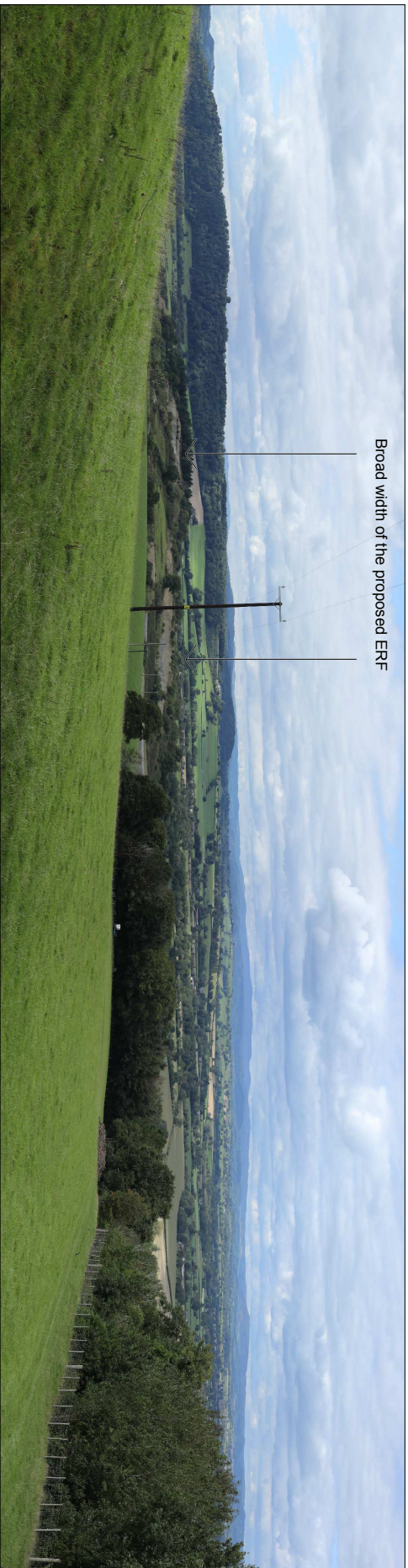
ultimately derive from small medieval open fields.

Elsewhere, the pattern of fields and woodland, the winding network of roads, and dispersed pattern of farmsteads are the product of 'assarting' (woodland clearance). Perhaps the best example of this can be seen to the north of Wart Hill, northwest of Craven Arms.

In other places, particularly in the upper reaches of the river valleys in the Clun Forest, the pattern of irregular fields systems and dispersed farmsteads probably represent a mosaic of small closes, assarts and intakes from the commons, the creation of which began in the medieval period if not before.

APPENDIX 11

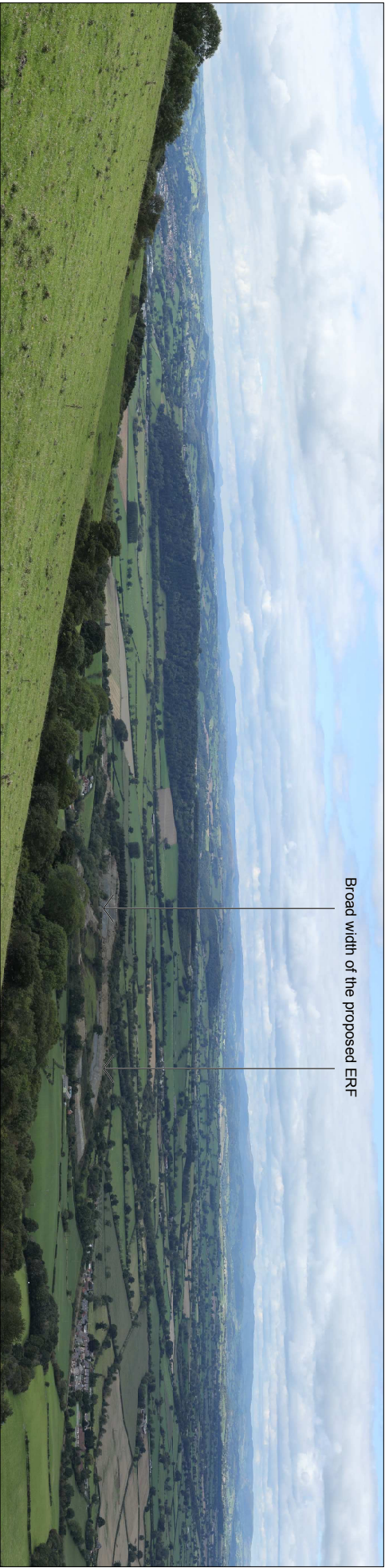
Example existing view and equivalent night sky view (Sheets 1 to 6)



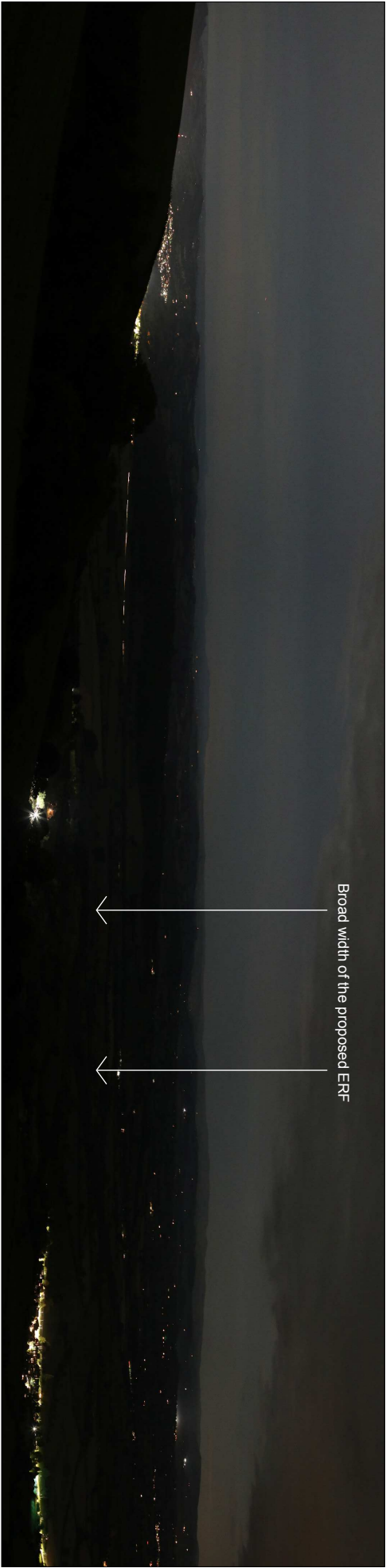
Viewpoint 4: From Heldre Lane at Upper Heldre



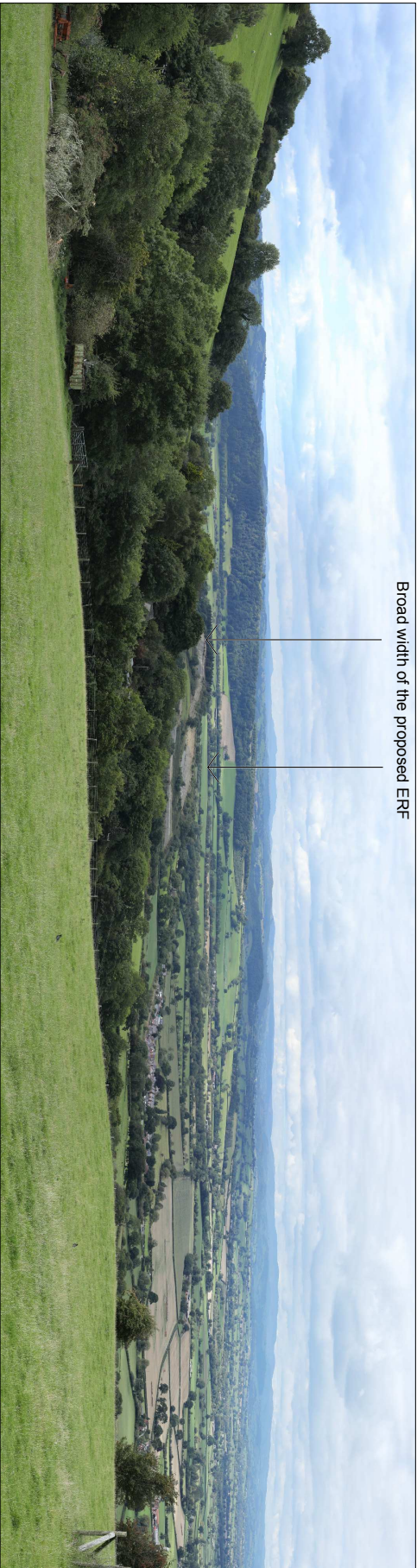
Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the photographs illustrated in the full LVIA.



Viewpoint 6: From footpath on Heldre Hill



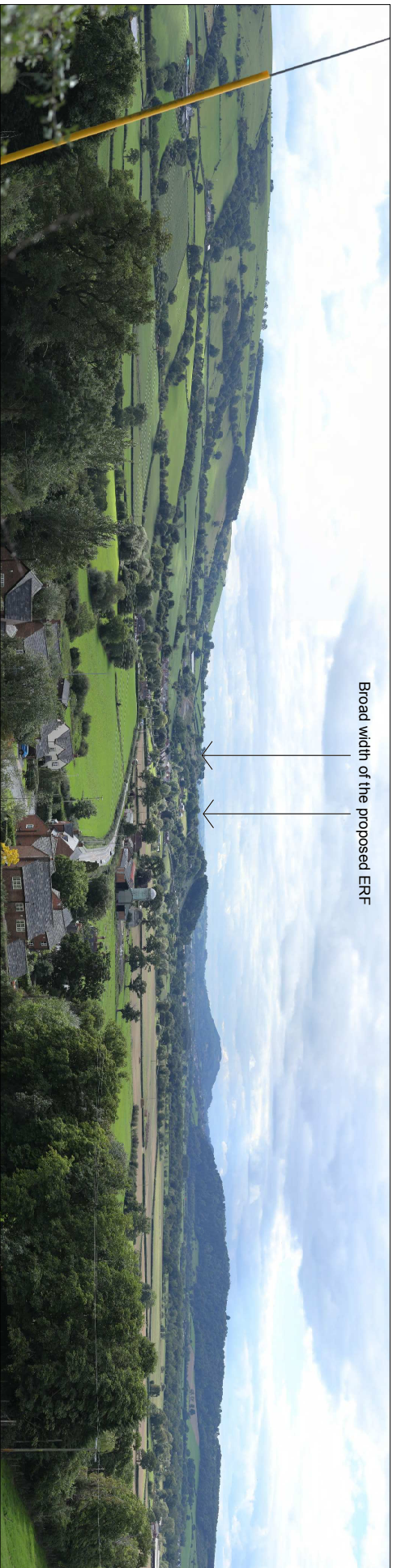
Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the photographs illustrated in the full LVIA.



Viewpoint 7 : From Brunant, immediately adjacent to Pob Ceiniog



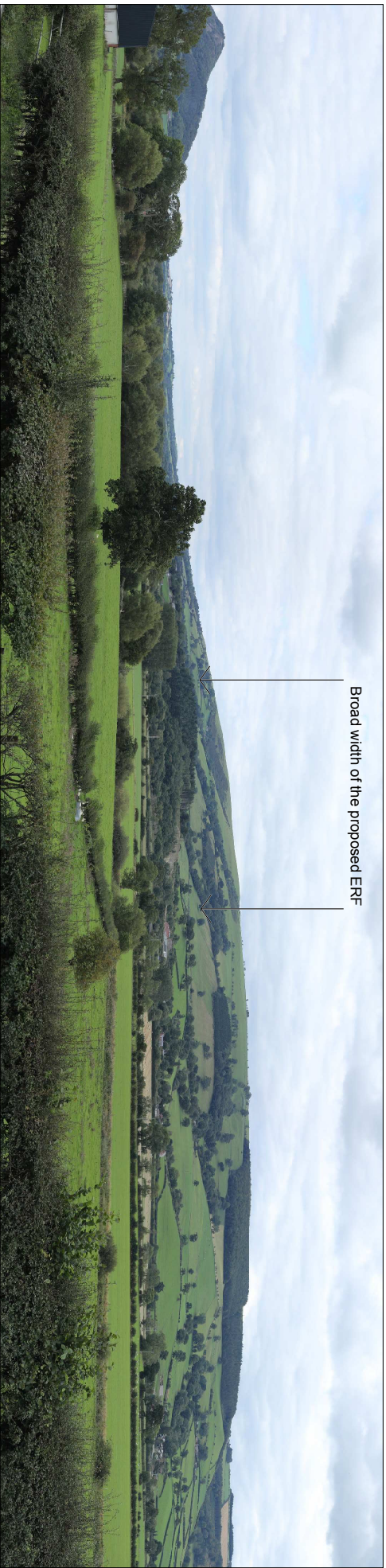
Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the photographs illustrated in the full LVIA.



Viewpoint 11: From Garreg Bank (upper), Trevern



Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the photographs illustrated in the full LVIA.



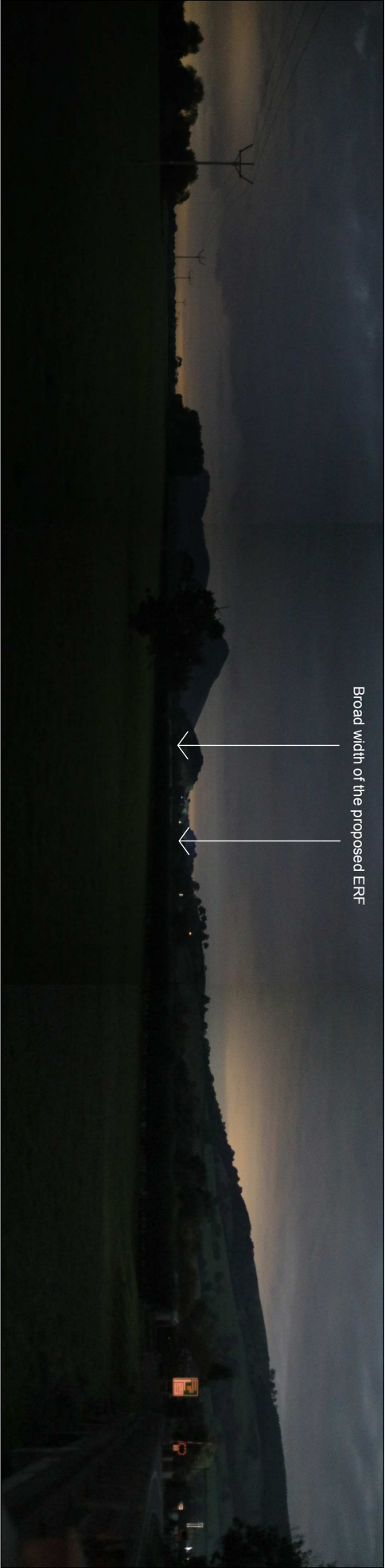
Viewpoint 21: From A483 near Pool Quay at Strata Marcella Abbey



Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the photographs illustrated in the full LVIA.



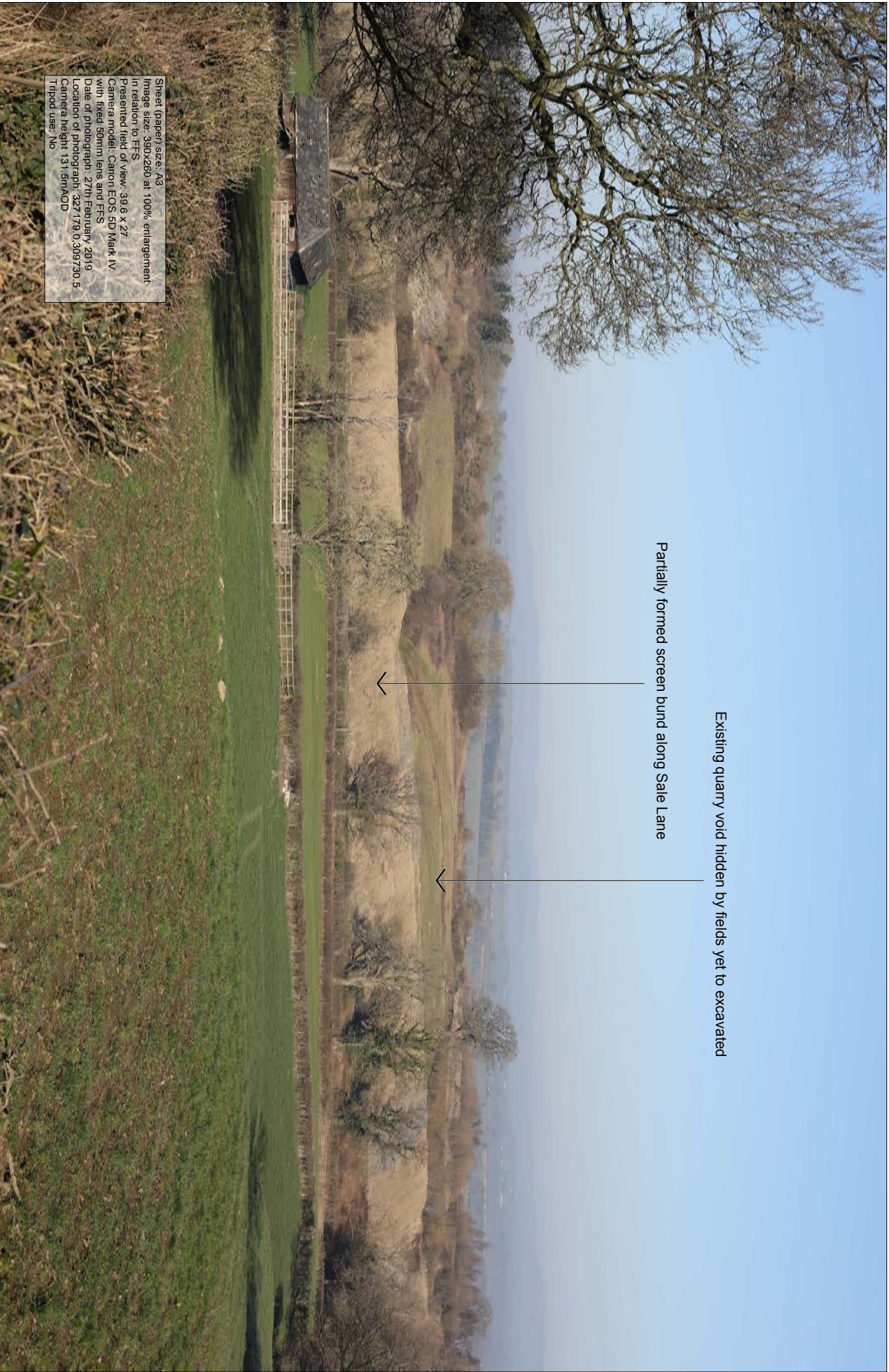
Viewpoint 22: From A458 at Buttington Bridge



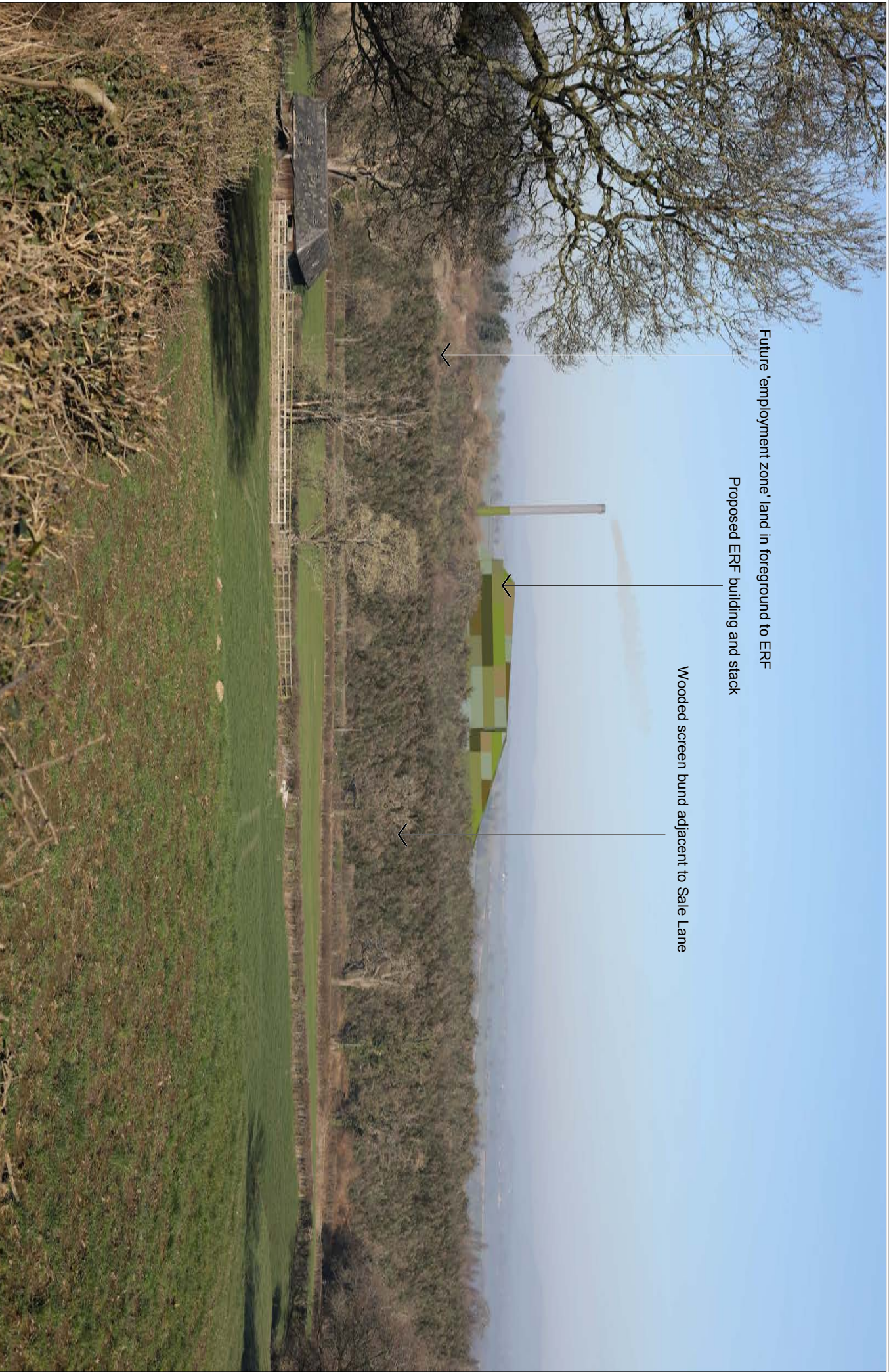
Panoramic photographs are presented for illustration and general reference to the accompanying LVIA text. They are not a replacement for observation on site. Detailed single frame photographs accompany the photographs illustrated in the full LVIA.

APPENDIX 12

Example photomontage winter views (Sheets 1 to 16)



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 27th February 2019
Location of photograph: 327 179 0 309 730.5
Camera height 131.5m AOD
Tripod use: No



Future 'employment zone' land in foreground to ERF

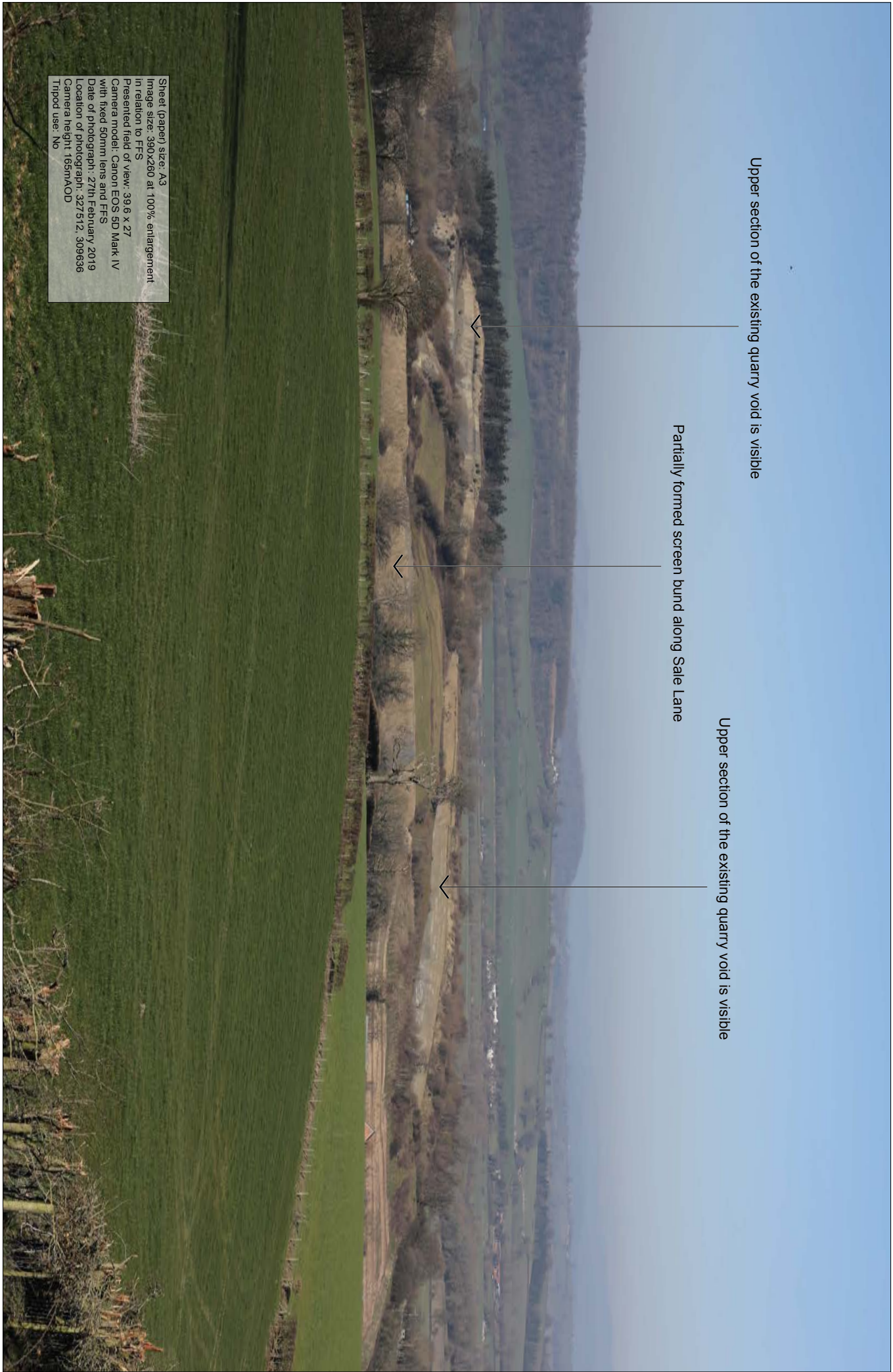
Proposed ERF building and stack

Wooded screen bund adjacent to Sale Lane

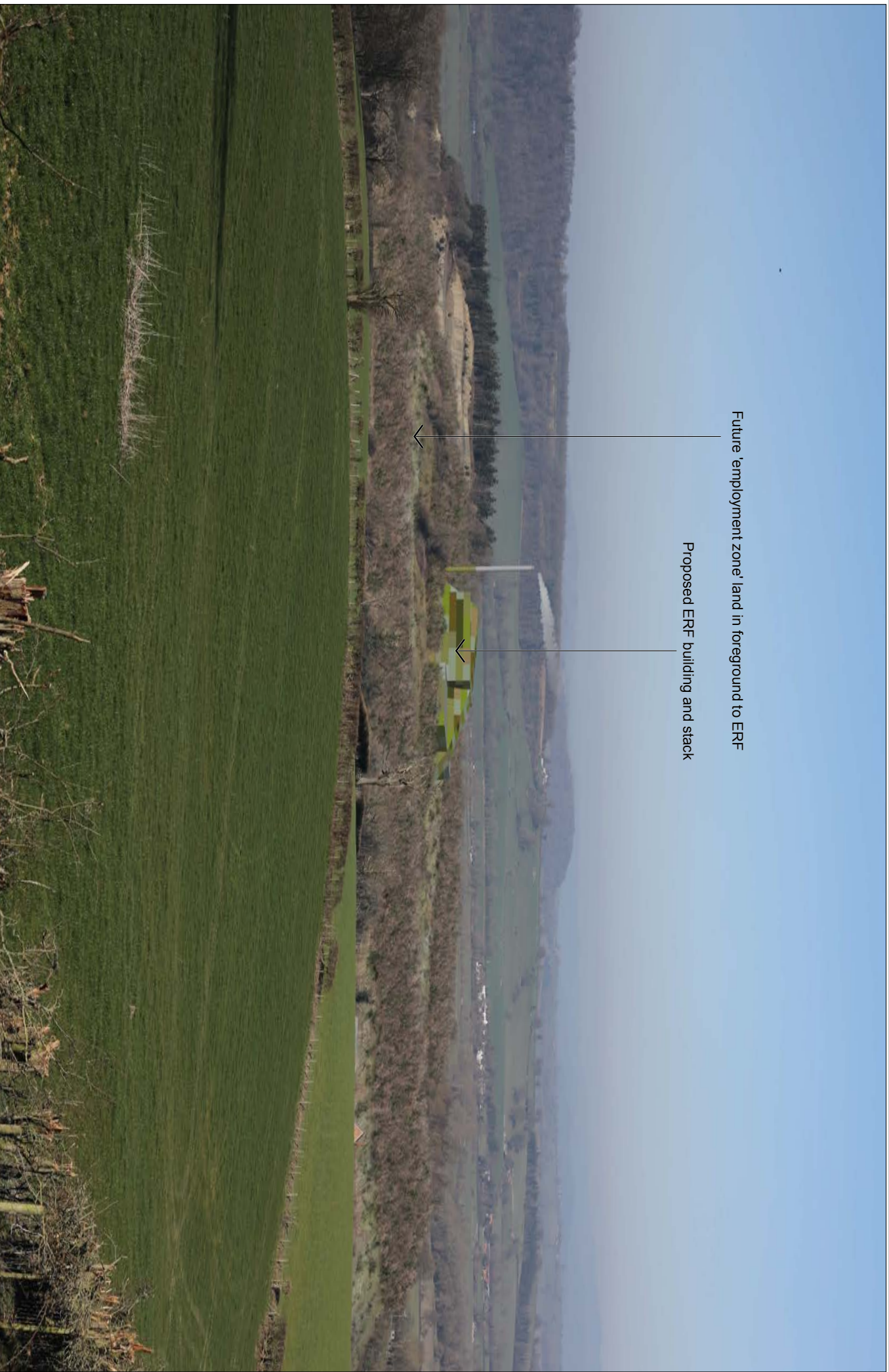
Upper section of the existing quarry void is visible

Partially formed screen bund along Sale Lane

Upper section of the existing quarry void is visible

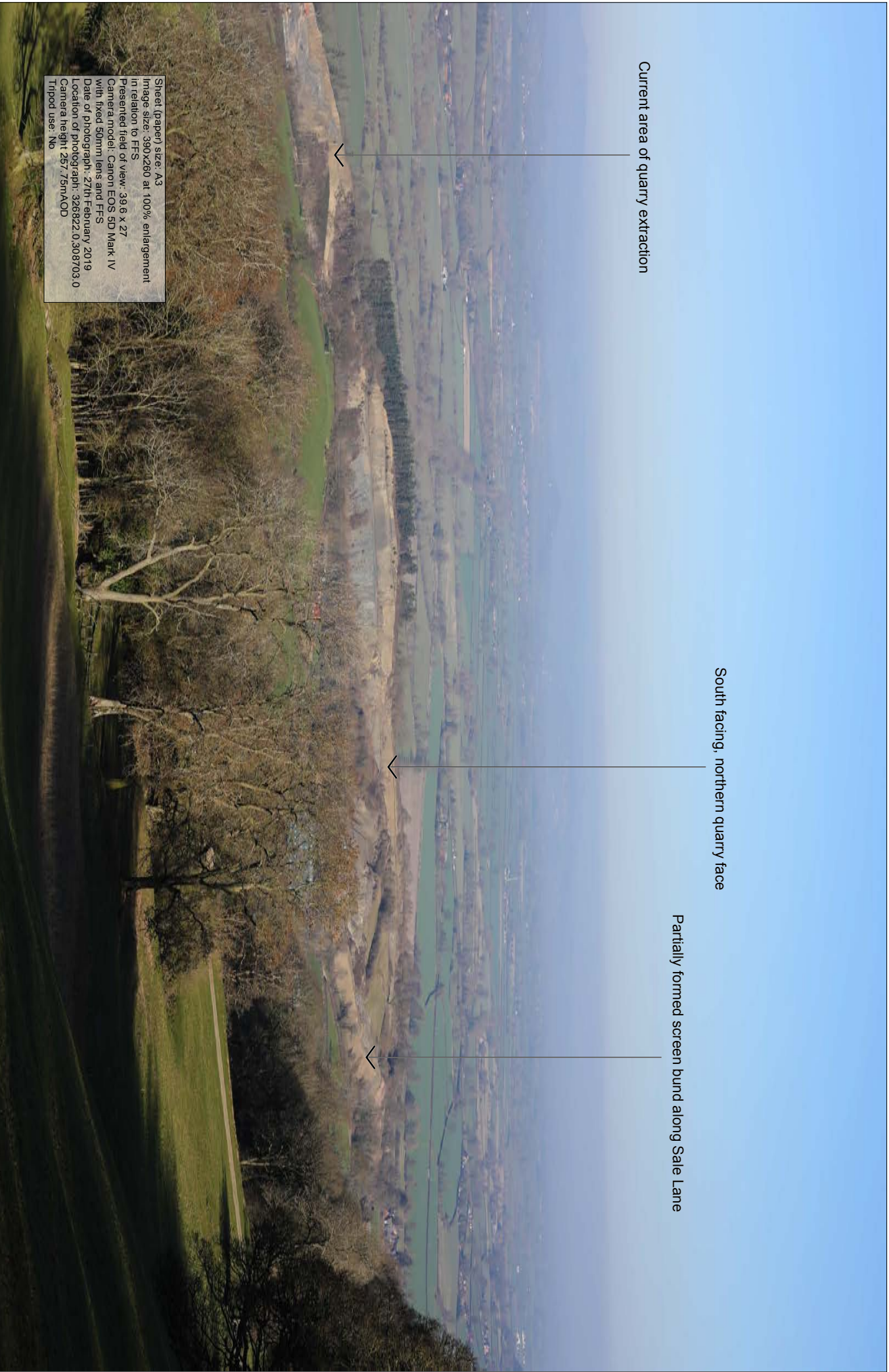


Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 27th February 2019
Location of photograph: 327512, 309636
Camera height: 165m AOD
Tripod use: No

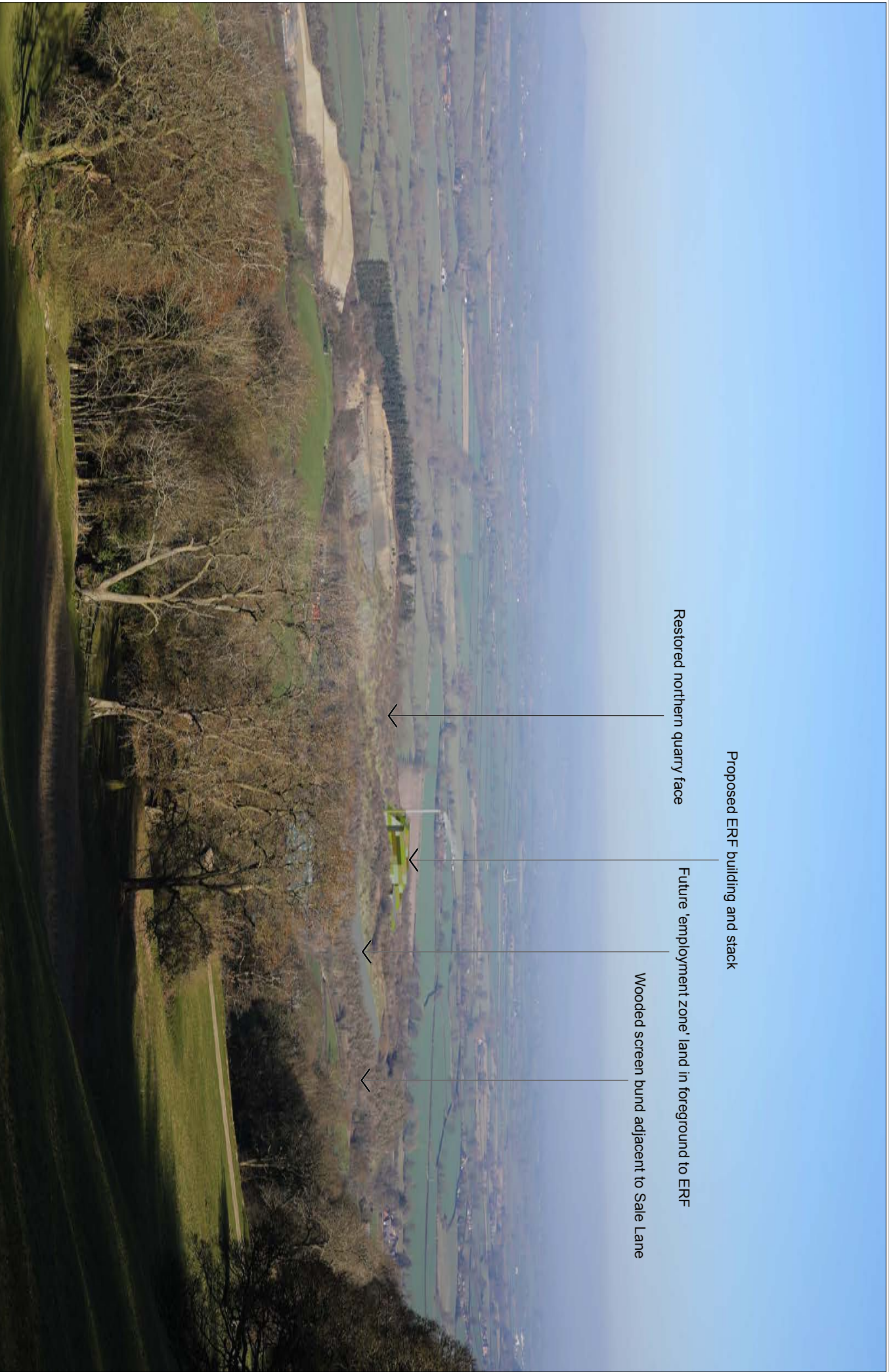


Future 'employment zone' land in foreground to ERF

Proposed ERF building and stack



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 27th February 2019
Location of photograph: 326822.0, 308703.0
Camera height 257.75mAOD
Tripod use: No



Proposed ERF building and stack

Restored northern quarry face

Future 'employment zone' land in foreground to ERF

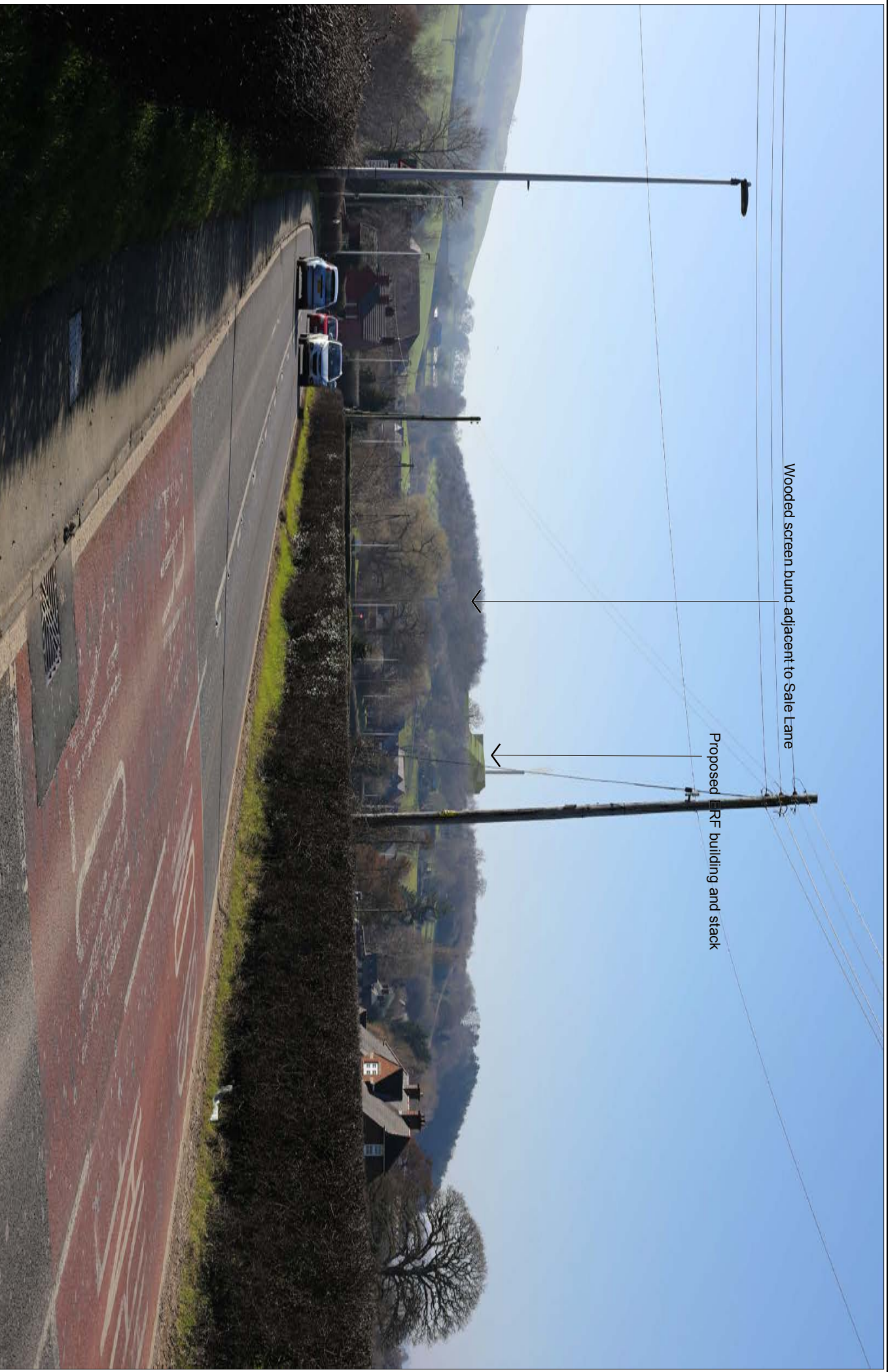
Wooded screen bund adjacent to Sale Lane



Screen bund currently under construction
along Sale Lane

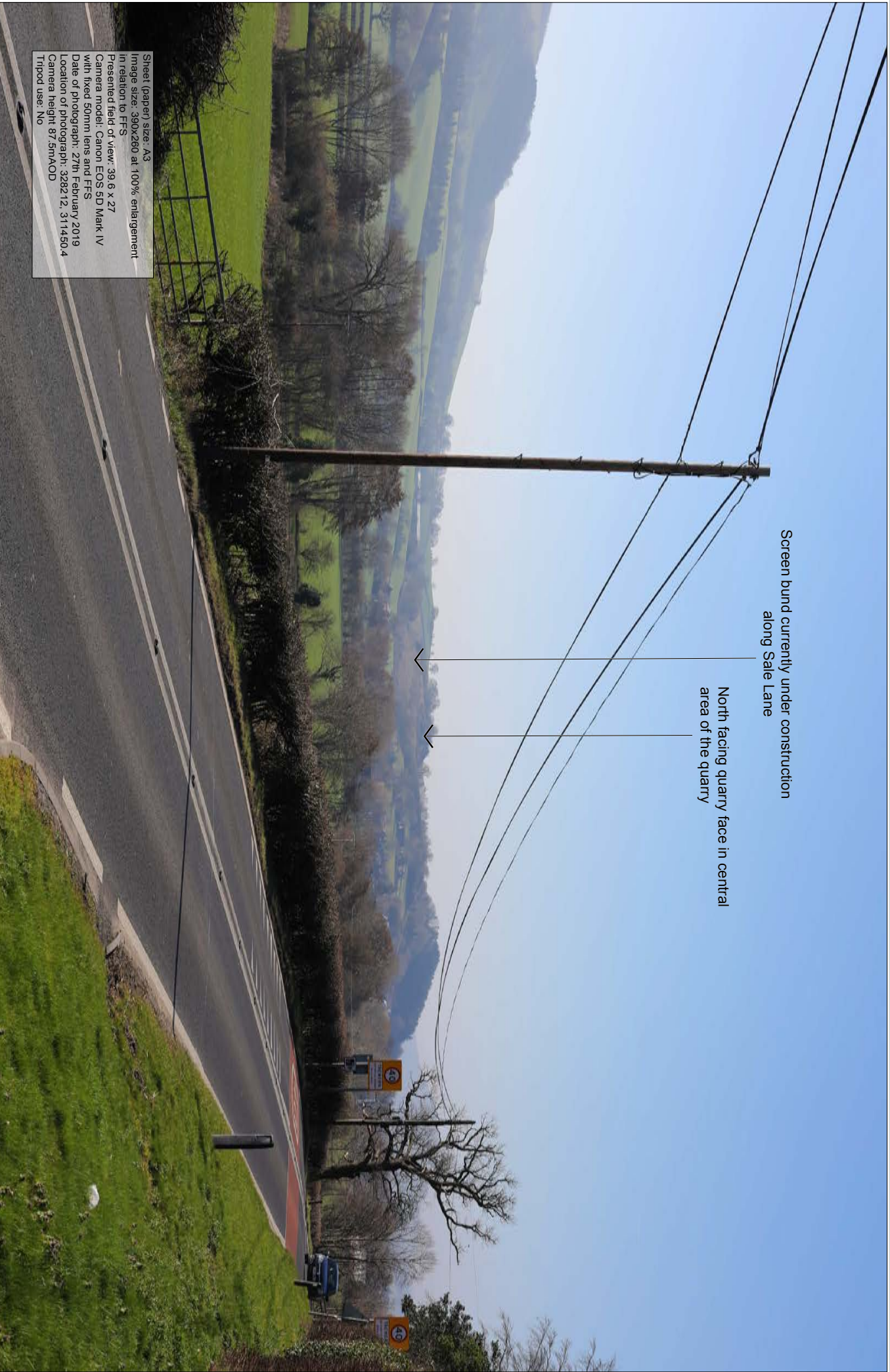
North eastern edge of the quarry with the
extraction area hidden by foreground
landform

Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 27th February 2019
Location of photograph: 327567.7, 310905
Camera height 74.0mAO
Tripod use: No

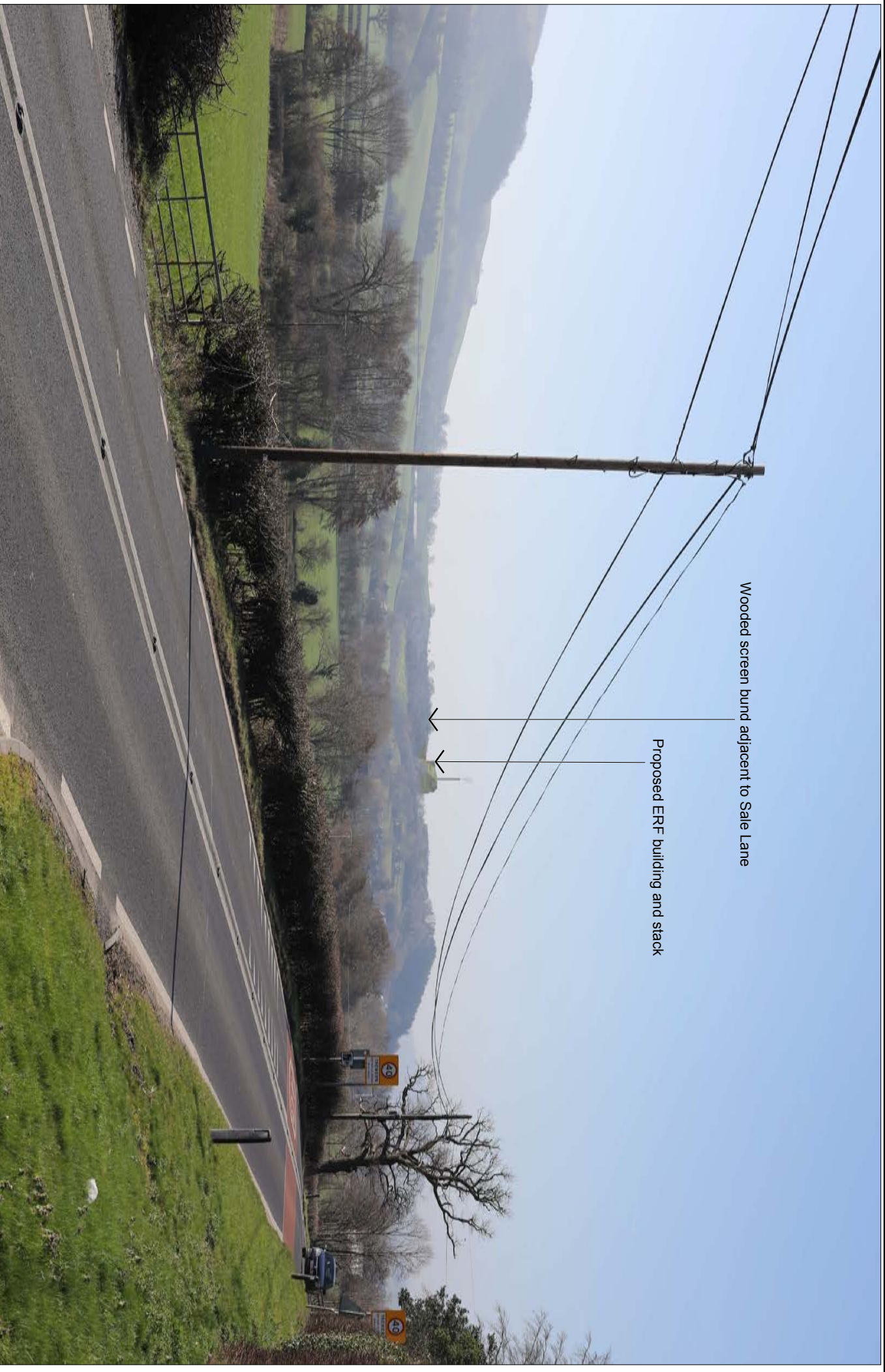


Wooded screen bund adjacent to Sale Lane

Proposed ERF building and stack



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
In relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 27th February 2019
Location of photograph: 328212, 311450.4
Camera height 87 smAOD
Tripod use: No



Wooded screen bund adjacent to Sale Lane

Proposed ERF building and stack

Screen bund currently under construction
along Sale Lane

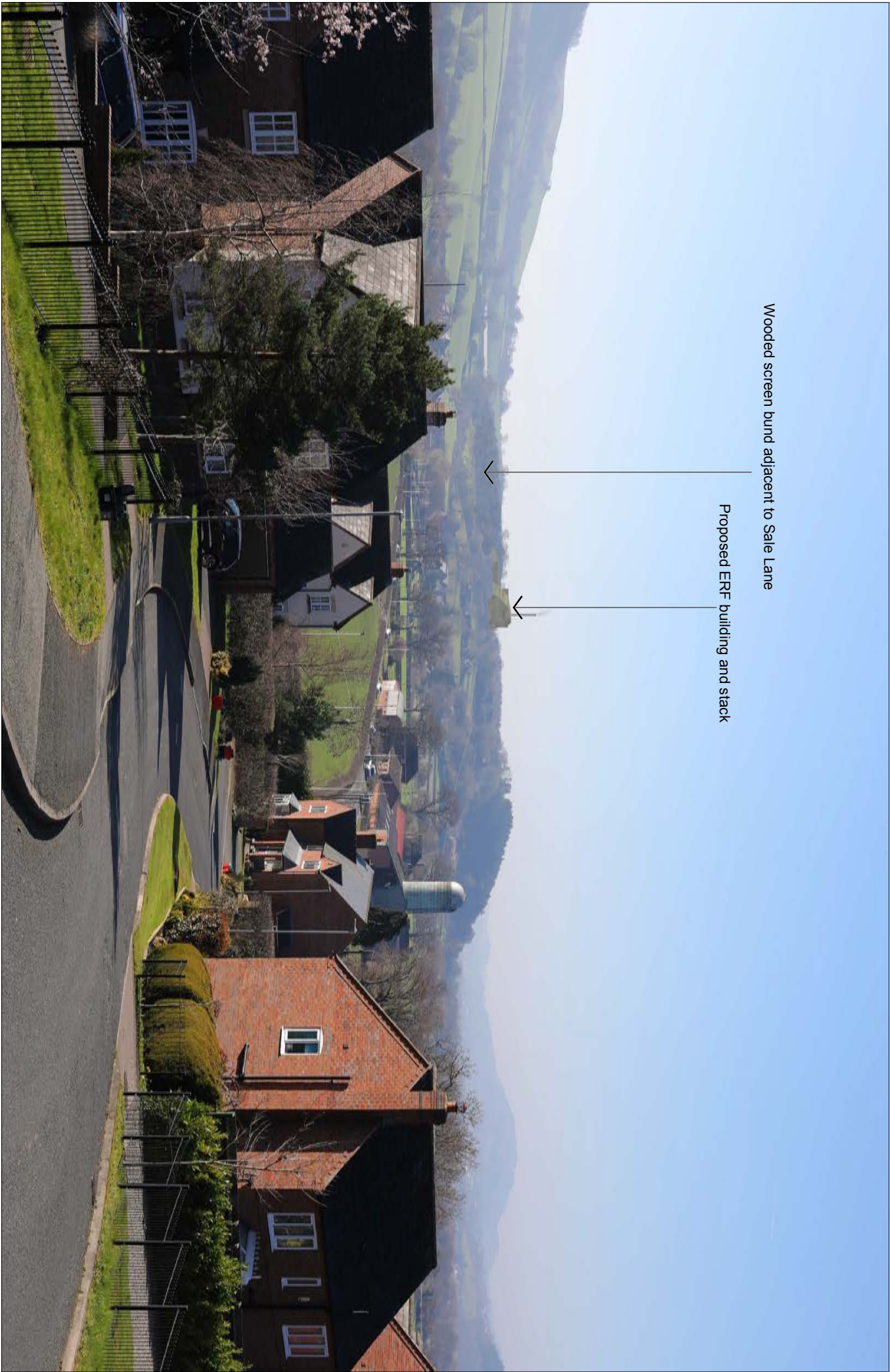
North facing quarry face in central
area of the quarry



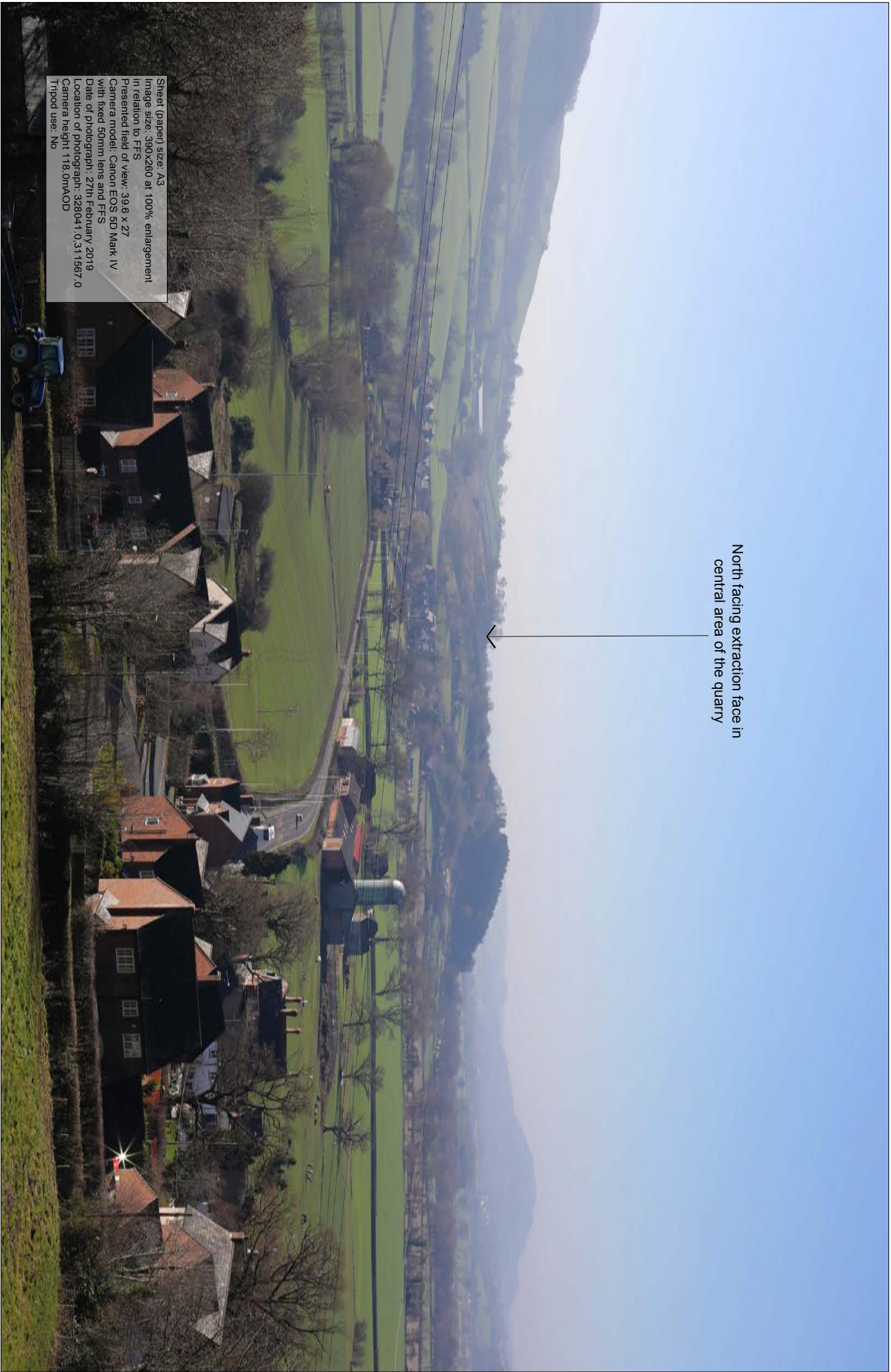
Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 27th February 2019
Location of photograph: 327970 0,311487.0
Camera height 95.0mAOB
Tripod use: No

Wooded screen bund adjacent to Sale Lane

Proposed ERF building and stack



North facing extraction face in
central area of the quarry

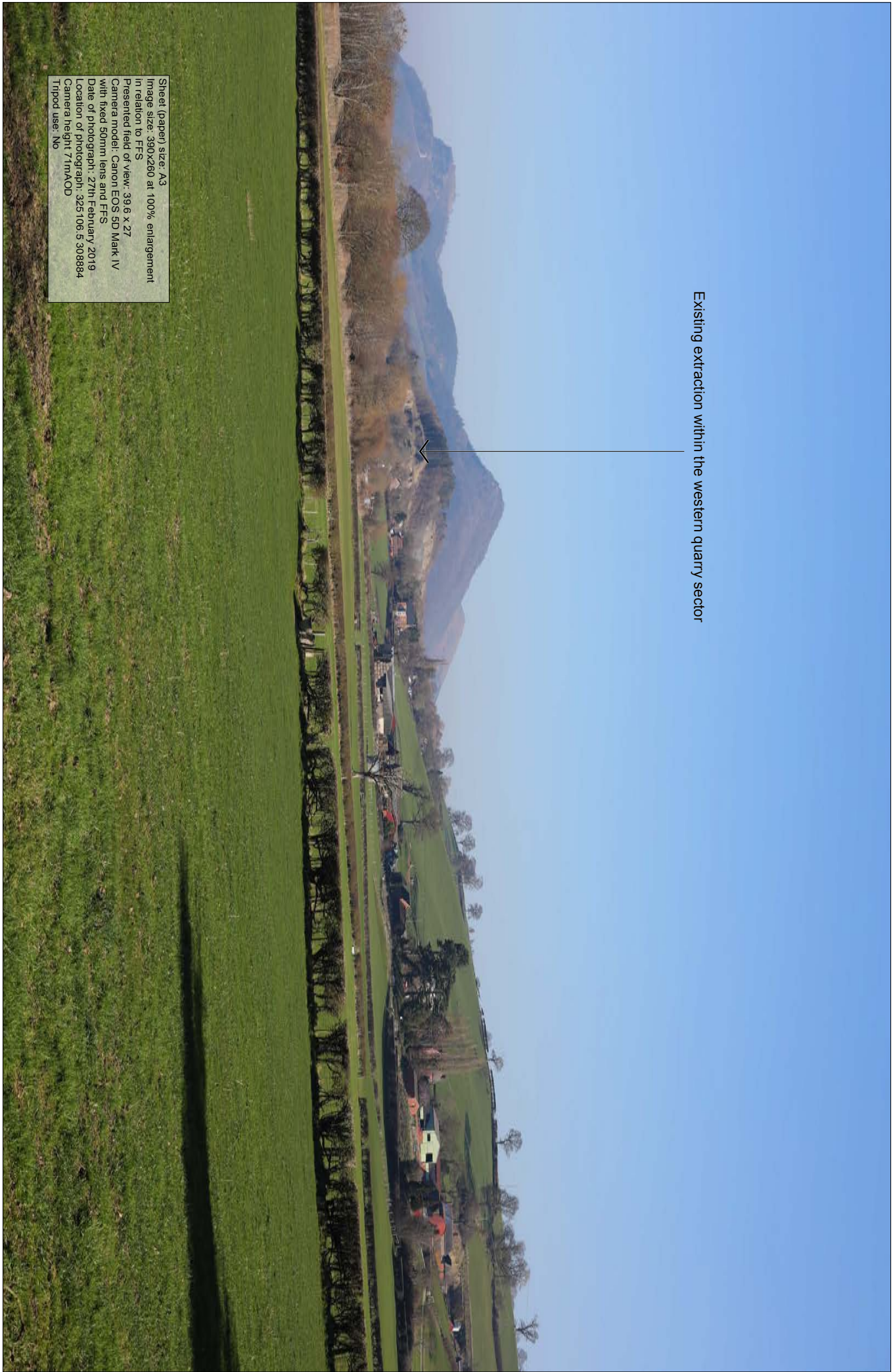


Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 27th February 2019
Location of photograph: 328041.0, 311567.0
Camera height 118.0mAOD
Tripod use: No

Proposed ERF building and stack

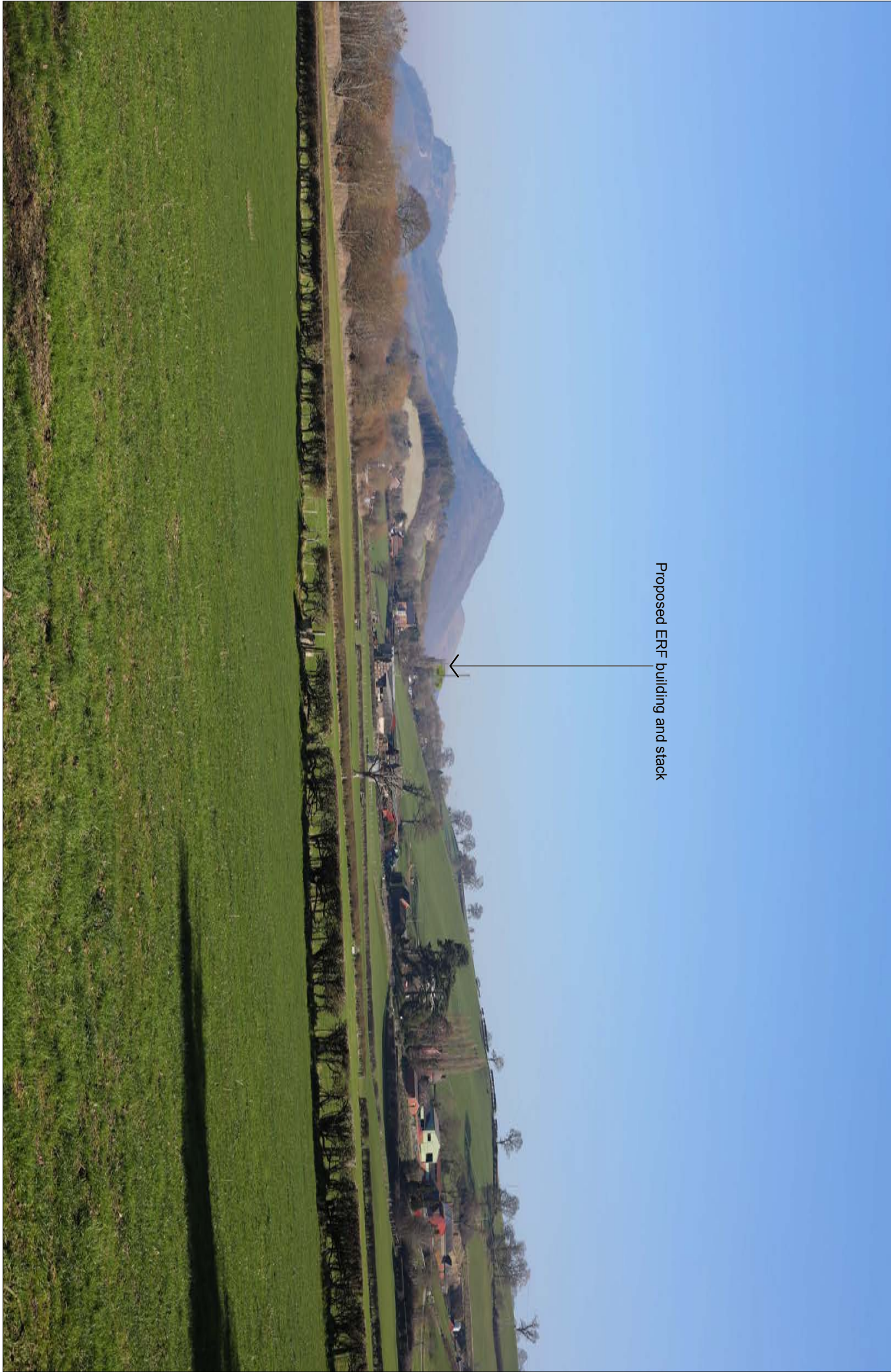


Existing extraction within the western quarry sector



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 27th February 2019
Location of photograph: 325106.5 308884
Camera height 71mAOD
Tripod use: No

Proposed ERF building and stack



APPENDIX 13

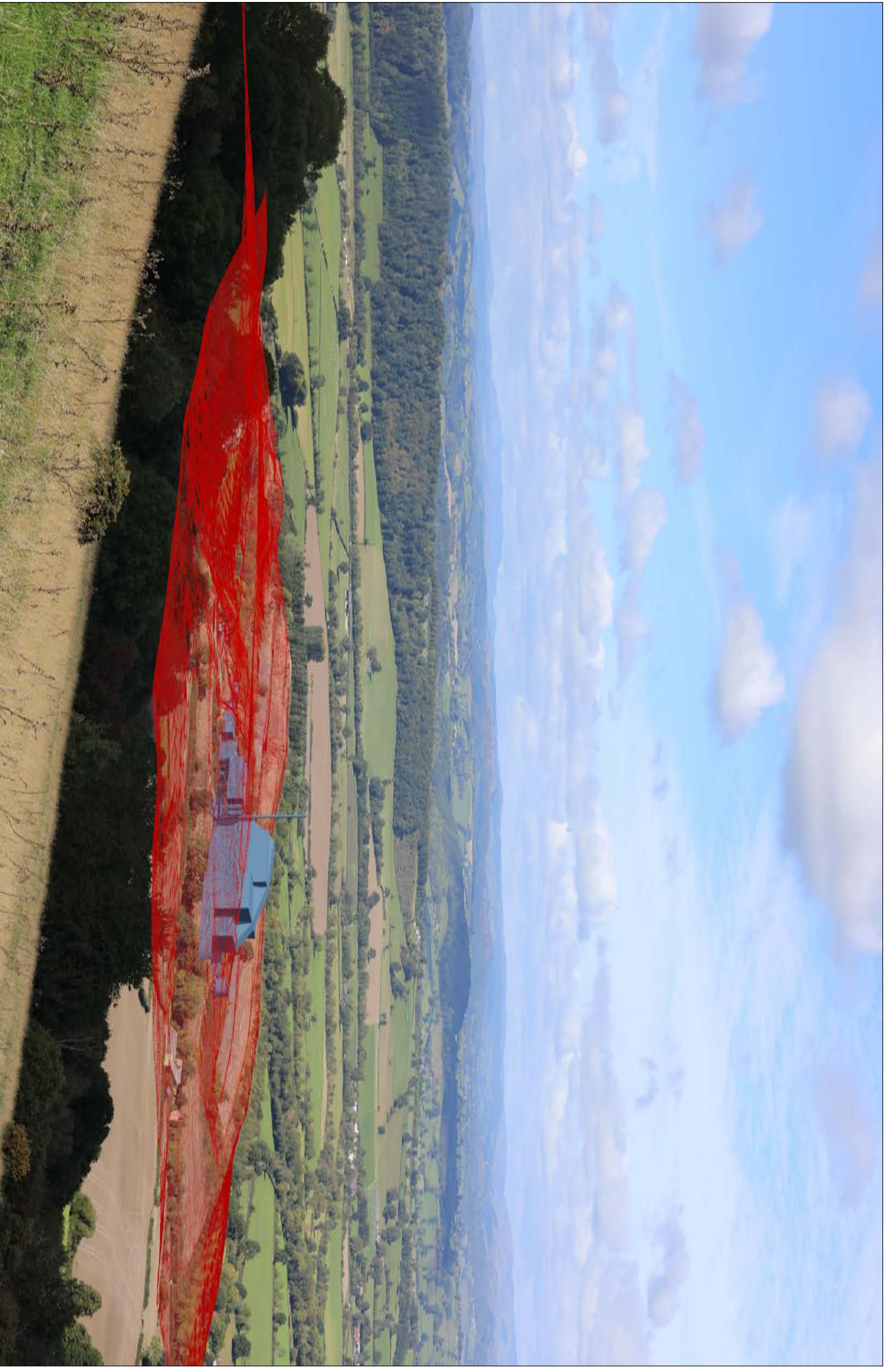
Example wireframe views to demonstrate methodology (Sheets 1 to 12)

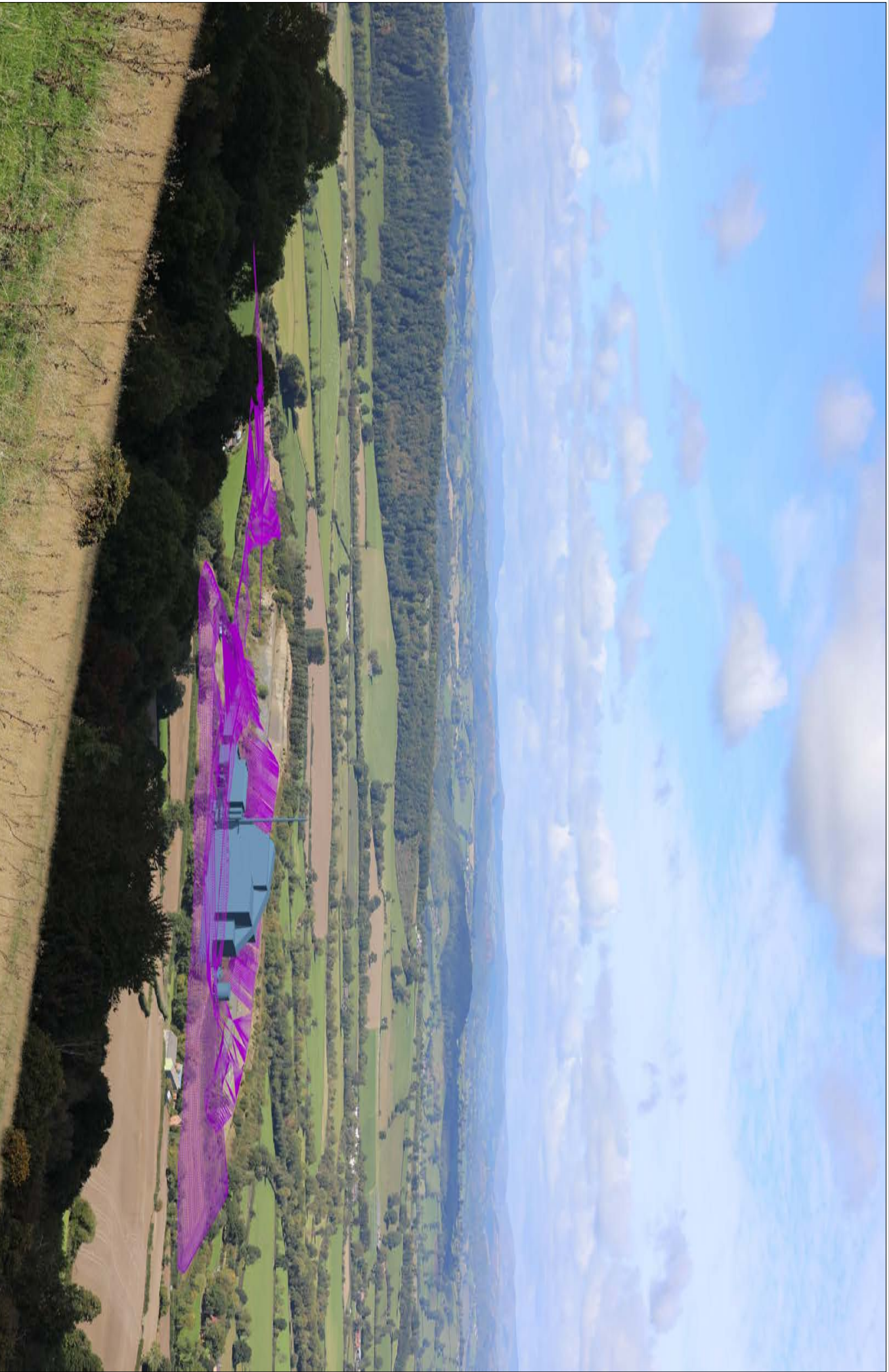










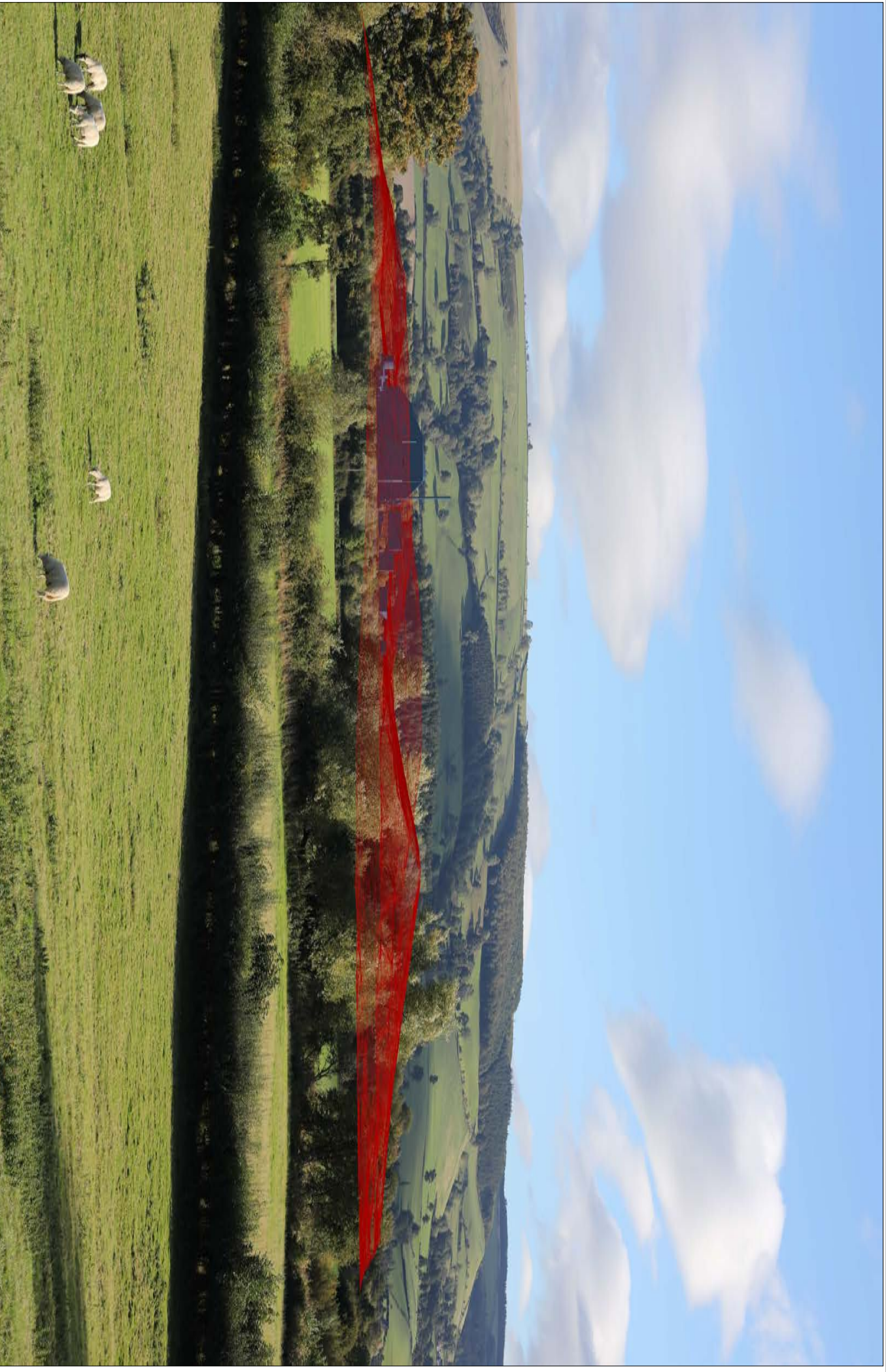














APPENDIX 14

Illustrated maximum calculated plume length from Viewpoint 11



Sheet (paper) size: A3
Image size: 390x260 at 100% enlargement
in relation to FFS
Presented field of view: 39.6 x 27
Camera model: Canon EOS 5D Mark IV
with fixed 50mm lens and FFS
Date of photograph: 27th February 2019
Location of photograph: 328041.0, 311567.0
Camera height 118.0mAOD
Tripod use: No

APPENDIX 15

Table 15A: Glossary

Specific To This LVIA	
Term	Explanation
Scoping Direction	Refers to the document entitled DNS: EIA Scoping Direction 3201953: Buttington Quarry, Proposed Energy Recovery Facility issued by The Planning Inspectorate on behalf of the Welsh Government, dated 3 October 2018
The Development	The proposed Buttington Quarry Energy Recovery Facility, Welshpool, Powys which will generate approximately 13MW of electricity through the treatment of 150,000 tonnes per annum of residential, commercial and industrial wastes. Namely, all activities within the red line planning boundary (see Drawing ECL-BQ-000 in Technical Appendix TA1-1).
The ERF	The proposed Energy Recovery Facility at Buttington Quarry.
The ERF building	The proposed built form, of note is the energy recovery hall (46m high) and waste reception hall (23m high) which represent the highest buildings. The stack is 70m high.
The Site	Planning Application boundary (red line) shown on Figure L1: Site Location and Landscape Character Classification (National Level) and subsequent Figures where appropriate.
The principal study area	As defined by the ZTV. For robustness, consideration has been given to areas in close proximity which may have relevance to the LVIA.
The Landscape Masterplan	Drawing BT1180-D2: Landscape Masterplan which is included in Appendix 2
The proposed lighting scheme	The contents of the report and Drawings prepared by Illume Design (Dated 1 August 2019) namely, Drawing No. 4052-ID-DR-1001 (Rev D01) External Lighting Strategy Sheet 1 of 2 and Drawing No. 4052-ID-DR-1002 (Rev D01) External Lighting Strategy Sheet 2 of 2 which are provided in the ES. The night time photographs taken by B&A as part of the Assessment are included in Appendix 11 (Sheets 1 to 6).
The GLVIA Third Edition	Landscape and Visual Impact Assessment (Third Edition), Landscape Institute and Institute of Environmental Management and Assessment (2013)
General Phrases Used In The LVIA Process	
Term	Explanation
Baseline Situation	This is determined by research, observational recording, classification and analysis of the existing landscape.
Landscape Capacity	The threshold at which change to the landscape characteristics and visual resource result in unacceptable adverse effects on its character or valued characteristics. This is derived from the interaction of landscape sensitivity and landscape value and is specific to the type of change or development.
Landscape Character	The distinct recognisable pattern of elements that occurs consistently in a particular type of landscape and how people perceive this, creating a particular sense of place. Generally, Landscape Character Types (LCTs) refer to multiple areas of the same character. Landscape Character Areas (LCAs) refer to specific geographical locations of a particular character type. LANDMAP identifies five Aspect layers, namely Geological Landscape, Historic Landscape, Landscape Habitats, Visual and Sensory and also Cultural Landscape Services.
Landscape Characteristics	Combinations of elements and experiential characteristics (e.g. tranquillity and wildness) that make a particular contribution to landscape character.
Landscape Element	A component part of the landscape (e.g. roads, hedges, woods).
Landscape Feature	A prominent eye-catching element (e.g. wooded hilltop or church spire).
Landscape Quality	Strength of expression of landscape character and condition (intactness) of characteristic visual and landscape elements (not the same as scenic beauty – see below).
Landscape Scene	The landscape characteristics apparent from a given viewpoint/location.
Landscape Sensitivity	The level of stability, robustness and resilience of the landscape character in relation to specific changes to its characteristics and types of development.
Landscape Value	The desirability of landscape characteristics (including scenic beauty, tranquillity, wildness, cultural associations, conservation interests etc.) and the acceptability of their loss to different stakeholders (i.e. valued for different reasons by different people and on different scales, e.g. local, national).
Nature of Effect (Beneficial)	Where the Development makes a useful or beneficial contribution to the character or visual amenity by virtue of good design, mitigation or restoration of previously lost features etc.
Nature of Effect (Adverse)	Where the Development results in a noticeably visible change that is out of character or affects the visual amenity in a negative sense.
Nature of Effect (Neutral)	Where the Development generally fits within the existing view or character.
Overall Landscape Sensitivity	The inherent level of sensitivity of a landscape (i.e. stability, robustness and resilience of the landscape character), irrespective of the type of change.
Scenic Beauty	Subjective value attributed to the emotional response of an individual to a landscape scene, which, although heavily influenced by intrinsic quality, is conditioned by an individual's perception (memories, associations, cultural influences and preference).
Sequential View	For example, views along roads and footpaths.

Significant Impact	A landscape or visual impact that is likely to be a 'material consideration' (i.e. a matter that should be taken into account in deciding a planning application) due to the context and intensity of the effect. This is directly related to set criteria and terminology as set out within the assessment process.
Static View	For example, locations within residential areas.
Tranquillity	The personal experience from being at a location that provides individuals with the space and conditions to relax, achieve mental balance and a sense of distance from stress. Tranquil areas are often associated with quiet, remote (or appearing remote), natural, non-developed (non-built) and non-busy areas.
Visual Amenity	The subjective value attributed to the degree of pleasure gained from what is seen in a given view (quality of view).
Visual Sensitivity	The estimated level of susceptibility or response of people viewing a scene in relation to the viewpoint location and the activity and expectations of the viewer, in terms of reaction to a change in the view.

Table 15B: Abbreviations used in the LVIA

ABBREVIATION	WORD OR PHRASE
B&A	Bright & Associates
c.	circa
CPAT	Clwyd Powys Archaeological Trust
DCW	Design Commission for Wales
DNS	Development of National Significance
EIA	Environmental Impact Assessment
ERF	Energy Recovery Facility
ES	Environmental Statement
GLVIA	Guidelines for Landscape and Visual Impact Assessment
ha	hectares
HGV	Heavy Goods Vehicle
KEA	Key Environmental Aspects
km	kilometres
LANDMAP	Landscape Assessment and Decision Making Process
LCA	Landscape Character Area
LT	Landscape Type
LVIA	Landscape and Visual Impact Assessment
m	metres
mAOD	Metres Above Ordnance Datum
MW	megawatt
NCA	National Character Areas
NLCA	National Landscape Character Areas
NRW	Natural Resources Wales
OS	Ordnance Survey
PGW	Parkland and Gardens of Wales
POW	Parks of Wales
ROMP	Review of Minerals Permissions
SPG	Supplementary Planning Guidance
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage Systems
TAN	Technical Advice Notes
VP	Viewpoint
ZTV	Zone of Theoretical Visibility

Table 15C: Reference sources used in the LVIA

REFERENCE SOURCES
Publications and Reports (alphabetical order)
Countryside Council for Wales and The Welsh Government Historic Environment Service (CADW), <i>Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process, Revised (2nd) Edition Including Revisions to the Assessment Process</i> , 2007
Institute of Lighting Professionals, <i>Guidance Note 01/20, Guidance notes for the reduction of obtrusive light</i> , 2020
John Campion Associates Ltd. (Commissioned by Powys County Council), <i>Powys Landscape Character Assessment Study</i> , 2008
Landscape Institute, <i>Visual Representation of Development Proposals, Technical Guidance Note 06/19</i> , September 2019
Landscape Institute and Institute of Environmental Management and Assessment, <i>Guidelines for Landscape and Visual Impact Assessment (Third Edition)</i> , 2013
Natural England, <i>An Approach to Landscape Character Assessment</i> , October 2014
Natural England, <i>An Approach to Landscape Sensitivity Assessment – to Inform Spatial Planning and Land Management</i> , June 2019
Natural England, <i>NCA Profile: 61 Shropshire, Cheshire and Staffordshire Plain (NE556)</i> , 2014
Natural England, <i>NCA Profile: 63 Oswestry Uplands (NE548)</i> , 2014
Natural England, <i>NCA Profile: 65 Shropshire Hills (NE447)</i> , 2013
Natural Resources Wales, <i>Severn Valley NLCA19</i> , 2014
Natural Resources Wales, <i>Shropshire Hills (outliers) NLCA18</i> , 2014
Natural Resources Wales, <i>LANDMAP Methodology Visual and Sensory</i> , 2016
Natural Resources Wales, <i>LANDMAP Methodology Landscape Habitats</i> , 2016
Natural Resources Wales, <i>LANDMAP Methodology Geological Landscape</i> , 2016
Natural Resources Wales, <i>LANDMAP Methodology Historic Landscape</i> 2016, 2016
Natural Resources Wales, <i>LANDMAP Methodology Overview</i> , June 2017
Natural Resources Wales, <i>LANDMAP Cultural Landscape Services, Report No 336</i> , 2019
Powys County Council, <i>Powys Local Development Plan 2011 – 2026, 1/4/2011 to 31/3/2026, Written Statement</i> , Adopted April 2018
Powys County Council, <i>Biodiversity and Geodiversity Supplementary Planning Guidance</i> , Adopted October 2018
Powys County Council, <i>Landscape Supplementary Planning Guidance</i> , Adopted April 2019
The Planning Inspectorate on behalf of the Welsh Government, <i>DNS: EIA Scoping Direction 3201953: Buttington Quarry, Proposed Energy Recovery Facility</i> , 3 October 2018
Scottish Natural Heritage, <i>Visual Representation of Wind Farms, Guidance, Version 2.2</i> , February 2017
Shropshire Council, <i>The Shropshire Landscape Typology</i> , September 2006
Shropshire Council, <i>SAMDev Plan 2006-2026</i> , December 2015
The Welsh Government, <i>Technical Advice Note 5 Nature Conservation and Planning</i> , September 2009
The Welsh Government, <i>Technical Advice Note 21 Waste</i> , February 2014
The Welsh Government, <i>Technical Advice Note 12 Design</i> , March 2016
The Welsh Government, <i>Technical Advice Note 24 The Historic Environment</i> , May 2017
The Welsh Government Historic Environment Service (CADW), <i>Setting of Historic Assets in Wales</i> , May 2017
The Welsh Government Historic Environment Service (CADW), <i>Managing Change to Registered Historic Parks and Gardens in Wales</i> , May 2017
The Welsh Government, <i>The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017, Schedule 4 Regulation 17(3) Information for Inclusion in Environmental Statements</i> , came into force 16 May 2017
The Welsh Government, <i>Planning Policy Wales (Edition 10)</i> , December 2018
Websites (alphabetical order)
Clwyd-Powys Archaeological Trust, http://www.cpat.org.uk/projects/longer/histland/montgom/montgom.htm
Lle Geo-Portal, http://lle.gov.wales
Long Distance Walkers Association, https://www.ldwa.org.uk
Maesfron Hall and Gardens, https://www.maesfron.co.uk
Natural Resources Wales, https://naturalresources.wales
National Monuments Record of Wales, https://coflein.gov.uk
National Trails, https://www.nationaltrail.co.uk/
National Trust, https://www.nationaltrust.org.uk/powis-castle-and-garden
Sustrans, https://www.sustrans.org.uk
The Welsh Government, https://gov.wales/
The Welsh Government Historic Environment Service, http://cadw.gov.wales

Table 15D: Scoping Direction Paragraph 7.4: Landscape And Visual Impacts and

ITEM/ASPECT	WHERE ADDRESSED IN THE LVIA (SECTION NUMBER/FIGURES)
Paragraph 7.4 Landscape and Visual Impact	
Additional viewpoint locations suggested by The Welsh Government Historic Environment Service (CADW)	<ul style="list-style-type: none"> • Offa's Dyke - Section extending 760m N from centre of Goppas Wood to Hope By-Road (Reference MG034). Field work undertaken as part of the LVIA process determined that there would be restricted views from areas south of Hope Road. This section of Offa's Dyke is outwith the ZTV (Figure L2). • (iii) MG224 Offa's Dyke: South of School House. The Scheduled Monument is located in a low lying area adjacent to the B4388 and is south of the Offa's Dyke Business Park in Buttington. Field work undertaken as part of the LVIA established that north-easterly views are restricted by a combination of topography, intervening built form and woodland. Whereas more open views relate to the higher ground of the Long Mountain to the east. The Development will have No Impact during all phases. • (i) MG120 Strata Marcella Abbey. Field work undertaken as part of the LVIA established that the Scheduled Monument is located at a low elevation when compared to more open areas in the vicinity along the nearby A483. The Development will have No Impact during all phases due to a combination of distance, localised topography and vegetation. Viewpoint Location 21 is from the A483 near Pool Quay at Strata Marcella Abbey. • The Breidden Hillfort: See Viewpoint Location 18.
Clwyd Powys Archaeological Trust (CPAT)	
Stack height of 70m	There has been no change to the height of the stack for the Development.
Consultation with adjacent local authorities given proximity of the Development to the Wales-England border	The Zone of Theoretical Visibility includes areas of England as shown on Figure L2 of the LVIA. In addition, discussions regarding the Development have been held with Shropshire County Council. In summary, the Project Team met with the Planning Policy and Strategy Manager to discuss their potential involvement in all aspects of the Development. One of the key issues discussed was the LVIA and the extent of the assessment from Shropshire. They confirmed that they were content with the approach proposed (i.e. that there are no obvious viewpoints in Shropshire).
Consultees	
Powys County Council	
Cumulative effects e.g. residential amenity	Cumulative landscape and visual effects have been assessed regarding the Development and large scale commercial development such as warehouses along the main road network and on the edge of settlements.
Natural Resources Wales	
Landscape (paragraph 9): Advise consultation with the Local Authority landscape advisor	See Table 1 of the LVIA.
Concept Masterplan (paragraphs 10 to 14)	The Buttington Brickworks SSSI is located outwith the Planning Application boundary and will not be affected by the Development.
The Welsh Government Historic Environment Service (CADW)	
Two sections of Offa's Dyke (scheduled monuments MG034 and MG224) as part of the Offa's Dyke Path National Trail.	See above.
Viewpoint Location 8: From the residential area of Trewern. In addition, it would also be in the vicinity of the Maesfron (Grade II) Register of Parks and Gardens of Special Historic Interest in Wales (CADW) and its associated setting. It is proposed that the viewpoint location should be from main road or side road, to best illustrate the southerly amenity. Receptors would comprise residents. Viewpoint Location 11: From a public footpath near Crowther's Coppice and adjacent to residential properties, illustrating wider views over the Severn Valley. Receptors would be footpath users and residents.	<ul style="list-style-type: none"> • Trewen and (PGW (Po) 53(POW) (Maesfron) Registered Historic Park and Garden: See Viewpoint Location 9. • Scheduled Monument MG143 Crowther's Coppice Camp: The Scheduled Monument is located in Crowther's Coppice and includes a section immediately adjacent to Allt Wood (to the east). Open views are available to the north rather than to the south-east towards the Site. The Development will have No Impact during all phases due to localised vegetation. Viewpoint Location 19 is from a public footpath near Coppice East Farm and demonstrates open views from the northern edge of Allt Wood.
Presentation methods in the LVIA using a combination of wireframe and photographic analysis.	Appendix 1 LVIA Methodology.
Registered Historic Parks and Gardens	Landscape Effects: See Section 5, Table 7. Visual Effects: PGW (Po) 53 (POW) Maesfron (Grade II): See Viewpoint Location 9 and PGW (Po) 35 (POW) Powis Castle Garden (Grade I): See Viewpoint Location 24.
Managing Change to Registered Historic Parks and Gardens in Wales (2017)	The guidance has been used for the assessment of cultural heritage designations identified within the principal study area which are described in Section 3: The Baseline Situation and assessed in Section 5: Effects On Landscape Character and Designations.
Clwyd Powys Archaeological Trust (CPAT)	
A viewpoint location should be included from the Breidden Hillfort and Monument.	See Viewpoint Location 18.
CADW Best Practice Guidance: Managing the Setting of Historic Assets in Wales (May 2017)	The guidance has been used for the assessment of cultural heritage designations identified within the principal study area which are described in Section 3: The Baseline Situation and assessed in Section 5: Effects On Landscape Character and Designations.

Where Consultee Responses are Addressed in the LVIA

Table 15E: EIA Regulations (Schedule 4: Information for Inclusion in Environmental Statements)

ITEM/ASPECT	WHERE ADDRESSED IN THE LVIA (SECTION NUMBER/APPENDIX)
1. A description of the development, including in particular:	
(a) a description of the location of the development	Section 3: The Baseline Situation
(b) a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases	Section 1: Introduction
(c) a description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used	Section 1: Introduction
(d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases.	N/A
2. A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.	N/A
3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.	Section 3: The Baseline Situation
4. A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.	Section 3: The Baseline Situation
5. A description of the likely significant effects of the development on the environment resulting from, inter alia:	
(a) the construction and existence of the development, including, where relevant, demolition works	Section 5: Effects on Landscape Character and Designations and Section 6: Assessment of Visual Effects.
(b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources	N/A
(c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste	N/A
(d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters)	N/A
(e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources	Section 5: Effects on Landscape Character and Designations and Section 6: Assessment of Visual Effects.
(f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change	Section 5: Effects on Landscape Character and Designations
(g) the technologies and the substances used. The description of the likely significant effects on the factors specified in regulation 4(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project, including in particular those established under Council Directive 92/43/EEC(a) and Directive 2009/147/EC(b).	Section 5: Effects on Landscape Character and Designations and Section 6: Assessment of Visual Effects.
6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.	The LVIA Methodology is provided in full in Appendix 1. Section 2: Methodology summarises the approach.
7. A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.	Section 1: Introduction
8. A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to EU legislation such as Directive 2012/18/EU(c) of the European Parliament and of the Council or Council Directive 2009/71/Euratom(d) or UK environmental assessments may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.	Section 5: Effects on Landscape Character and Designations and Section 6: Assessment of Visual Effects.
9. A non-technical summary of the information provided under paragraphs 1 to 8.	Provided in the ES.
10. A reference list detailing the sources used for the descriptions and assessments included in the environmental statement.	Appendix 15, Table 15C: Reference sources used in the LVIA.

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