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# ES VOLUME 2

## Technical Appendices

A - Landscape and Visual Considerations



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L i m i t e d

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**LANDSCAPE AND VISUAL IMPACT ASSESSMENT**

In respect of

**Proposed Sand and Gravel Quarry and Progressive Restoration Scheme to  
Agricultural Parkland, Public access and Nature Enhancement**

On Land At

**Lea Castle Farm, Nr Wolverley, Worcestershire**

**For**

**NRS Aggregates Ltd**

**October 2019**

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## **1.0 INTRODUCTION**

- 1.1 This document is a Landscape and Visual Impact Assessment (LVIA) in respect of proposals for a Sand and Gravel Quarry and Progressive Restoration Scheme to agricultural parkland, public access and nature enhancement, at land known as Lea Castle Farm, Wolverley, Kidderminster, Worcestershire (The Site).
- 1.2 The report has been prepared by Kedd Limited, Landscape Architects and Environmental Design Consultants. The practice specialises in landscape architectural design, masterplanning, planning and assessment works.
- 1.3 This assessment report has been produced in liaison with the applicant NRS Aggregates Ltd and the landowner Strong Farm (LS) Limited, to ensure the full nature and scope of the scheme is understood. It has also been guided by Landscape and Visual Best Practice Guidance and the Scoping Opinion provided by Worcestershire County Council, dated 29<sup>th</sup> June 2018.
- 1.4 The aim of the report is to understand the baseline landscape and visual resources and receptors within the Site/ local area and to assess their value and sensitivity to change resulting from the Proposed Development type. Using this baseline position to assess the specific magnitude of effect of the detailed development proposed on Landscape and Visual resources/receptors and to determine the Level of Significance of Effect on Landscape and Visual matters (which could be potentially adverse or beneficial).
- 1.5 The Site is located ~2.3km to the north of the centre of Kidderminster, 0.7km to the east of Wolverley, and 0.37km to the south west of Cookley. The Site is located immediately to the north of the B4189 Wolverley Road and immediately to the west of the A449 Wolverhampton Road. See LVIA Figure 1 within Appendix A.
- 1.6 The Site is located within the vicinity of several residential properties and commercial properties. The nearest properties include South Lodge and Broom Cottage on the southern boundary, Castle Barns to the north east, the Bungalow and Lea Castle Equestrian Centre to the central northern boundary, along with Keepers Cottage a residential property, and from established residential properties off Brown Westhead Park to the western boundary. To the south and across the Wolverley Road further properties and land uses are located, including Heathfield Knoll School and First Steps, Sion House, Abbots Croft and to the east, the property known as Four Winds, and Keepers Cottage - a residential and farm building, to the north.
- 1.7 The above receptor locations are illustrated along with the proposed Application Boundary and topographical information on the Current Situation (LVIA Figure 2 - See Appendix A).
- 1.8 For descriptive purposes, the Site can be separated into two parts. The Western Area and the Eastern Area divided by Public Right of Way (PROW) ref. 62 6(B) and

the remnants of a former tree lined avenue. The Western Area comprises a slight valley feature to the central west area at ~60 m above Ordnance Datum (m aOD) running eastwards to the central track and public footpath (ref. 62 6 (B)) at ~69-70 m aOD. Levels to the south, centre and north of the Western Area are in and around 67m aOD. Within the Eastern Area there is a central knoll at ~83m aOD, with land levels falling to the west to ~69m aOD, to the north to ~72m aOD, and to the east to ~53m aOD. Land levels to the south of the knoll being at ~80m aOD. Land within the application area is therefore undulating in nature with existing slope angles of between ~1:8 to 1:46 within the Western Area (west to east) and between ~1:8 and 1:20 within the Eastern Area (east to west from the Knoll), ~1:12 to 1:8 (east to west from the knoll) and ~1:15 southwards and 1:12 to 1:50 northwards.

- 1.9 PROW ref. 62 6 (B) which travels north to south between the Western and Eastern Areas runs into 62 5 (B), which heads to North Lodge and onto Cookley Road. Both of these PROW are bridleways. A section of footpath (PROW ref. 62 4(B)) links to the junction of PROW 62 5 (B) and 62 6 (B) travelling westwards to PROW 62 2 (C) which runs within woodland along the western boundary of the Site and connects with footpath ref. 62 3(B). The Site formed a part of the parkland setting of Lea Castle House, which was built around 1762 and demolished in 1945.

## 2.0 METHODOLOGY

- 2.1 This Landscape and Visual Impact Assessment (LVIA) has been carried out in accordance with the Landscape Institute and the Institute of Environmental Management and Assessment *Guidelines for Landscape and Visual Impact Assessment (GLVA 3)*, and Natural England's *An Approach to Landscape Character Assessment*.
- 2.2 *"LVIA is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource, in its own right, and on people's views and visual amenity"* GLVIA3.
- 2.3 Data collation and assessment has been carried out utilising both desktop and Site survey works to identify the baseline landscape character and visual nature and condition of the Site, and its local area. Initial desk top survey analysis helped to identify the potential areas that the Proposed Development may influence / change in respect of character and visibility. A 1:25,000 Ordnance Survey map was used to identify potential areas of visibility from roads, properties, public rights of way and open access land. Utilising Site and Site context topographical 3D data the Zone of Theoretical Visibility (ZTV) of the existing Site and the potential Proposed Development was defined. See LVIA Figures 6, 7, 8 and 9 within Appendix B. These were then used to inform and help define a study area within which the proposed development could influence / change both Landscape Character and Visual Amenity. It is worth noting that the ZTV's are a worst-case scenario in assessing the geographical land area from where the existing / proposed Site development could be observed / influence Landscape Character, as this method of analysis does not

account for existing built form or vegetation structure which would affect / reduce/or could screen views towards the Site from Landscape and Visual receptors.

- 2.4 This desk top appraisal helped form the basis for Site survey works which were carried out in summer 2018, winter 2018/2019 and summer 2019.
- 2.5 In summary and in highlighting the main assessment process the GLVIA states that when undertaking an LVIA, this should consider:
- i) Landscape effects i.e. the effects on the landscape as a resource; and
  - ii) Visual effects i.e. the effects on views and visual amenity.
- 2.6 It also states that; *“LVIA must deal with both and should be clear about the difference between them”* GLVIA 3 para 2.2.2 para 21.
- 2.7 The Guidelines explain that both landscape and visual effects are dependent upon the sensitivity of the landscape resource or visual receptors, and the magnitude of impact.
- 2.8 *Sensitivity* – is the term applied to specific receptors, combining judgements of the susceptibility of the receptor to the type of change or development proposed and the value related to that receptor.
- 2.9 *Susceptibility* – is the ability of a defined landscape or visual receptor to accommodate the specific proposed development without undue negative consequences.
- 2.10 *Landscape Value* – being the relative value that is attached to different landscape by society. A landscape may be valued by different stakeholders for a whole variety of reasons. Value attached to views – The recognition of the value attached to particular views, e.g. in relation to heritage assets or through planning designations.
- 2.11 *Magnitude (of effect)* – the term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.
- 2.12 *Assessed Overall Level of Significance of Effect* – this term relates to the final judgement about whether each effect identified is significant or not. It is a measure of the importance or gravity of the environmental effect, defined by the significance criteria specified within Appendix C.
- 2.13 The Proposed Development is described within chapter 3 of this report, within the assessment process, with its findings being within chapters 4, 5, 6 and 7 of this report.

### 3.0 PROPOSED DEVELOPMENT

- 3.1 The Planning Application Boundary measures ~46 Hectares (Ha). The Proposed Development is for the extraction of sand and gravel and solid sand from ~26 Ha of this land, with the remaining land linked to mitigation of the development and the overall enhancement of the Site, to be restored to an agricultural parkland setting with increased amenity uses and wildlife benefits.
- 3.2 A total of 3 million saleable tonnes will be extracted across an Initial works and five phases over the course of ~10 years with a further 1 year required to complete restoration. The mineral comprising ~ 1.57 million tonnes of sand and gravel and 1.43 million tonnes of solid sand. The mineral will be transported to the plant site for processing utilising both dump trucks and a short conveyor system. The scheme has been designed based on an annual processed tonnage of 300,000 saleable tonnes. To aid in the restoration of the site 0.6million m<sup>3</sup> of imported inert materials will be imported to provide a fill material to create restoration formation levels onto which the site original soil profile will be replaced. No recycling operations will take place. There will be no blasting. The site would operate between 7am to 7pm on Monday to Friday and from 8am to 1pm on Saturday. There will be no Sunday or Bank Holiday working. The Planning Application makes provision for the initial work requirements to establish a new temporary access onto the A4189 Wolverley Road and Plant Site and subsequent phased extraction of sand and gravel and solid sand with concurrent restoration. The detailed phased Working and Restoration scheme is illustrated and described on Planning Application Drawing Nos. 3 to 16. These drawings illustrate and describe that the mineral extraction will be sequential, with progressive restoration ensuring that the area of land required for the plant site and mineral extraction land will be contained to below 10 Ha during any one phase. This is illustrated on Planning Application Drawing No. 5.
- 3.3 The aim of the progressive restoration scheme is to create a “High Quality Agricultural Parkland” reflecting that of the lost/demolished Lea Castle parkland grounds. With the addition of local “Green Infrastructure” for public amenity and wildlife benefit. The Concept Restoration Scheme being illustrated on Planning Application Drawing No. 15. A land use comparison between the current situation and the proposal can be seen in **Table 1** below.

**Table 1: Restoration Land Use Comparison**

Land uses	Current Site Land uses	Proposed New Permanent Site land uses resulting from the Proposed Development
Agricultural Land	43.78 Ha	32.26 Ha
Woodland	1.12 Ha	4.54 Ha (~ addition of 8,500 trees and shrubs)

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Hedgerows	439 linear metres	1,018 Linear metres
Species rich acidic grassland	Nil	8.1 Ha
Avenue trees/individual trees	14	200
Pocket parks	Nil	5
Public footpaths/Bridleways	1.47 km	3.78 km
Tracks	1.1 Ha	1.1 Ha
<b>TOTALS (Area)</b>	<b>46.0 Ha</b>	<b>46.0 Ha</b>

3.4 The main changes in land use within the application boundary will be:

- An additional ~3.42 Ha of native woodland (planting of ~8550 new trees and shrubs)
- An addition of ~579 linear metres of native species rich hedgerows (planting of ~3,474 new hedgerow plants)
- An addition of 8.1 Ha of species rich acidic grassland
- An addition of ~200 specimen avenue/ individual trees
- Creation of ~2.31km of new PROW/bridleways, footpaths and cycleways)
- Creation of 5 pocket parks.
- Connection through a Green infrastructure Approach

All restored land will be placed into Aftercare for 5 years along with a concurrent and long-term management and maintenance programme in accordance with the land use proposal. This will be secured by both planning conditions and a formal legal agreement. All new sections of Public Rights of Way will be permanent.

## 4.0 LANDSCAPE ORIENTATED DESIGNATIONS AND PLANNING POLICIES

### Landscape Designated Orientations

- 4.1 The Site is located within the County of Worcestershire, and the Wyre Forest District.
- 4.2 The Site is not located within a nationally designated landscape i.e. National Park or Area of Outstanding or Natural Beauty. There are 13 trees with Tree Preservation Orders (TPO's) located across the Site. There are no other landscape orientated designations within the Site. LVIA Figure 3 (Appendix B) illustrates the location of Local Landscape Orientated Designations. There are a number of Listed Buildings within the vicinity of the site. These include the Grade II Listed North Lodges, the Gateway of Lea Castle, located approximately 275 metres to the north east of the Site, the Grade II Listed Sion House, which lies approximately 260 metres to the south of the Site, and the Grade II Listed Wolverley Court, located approximately 545 metres to the west of the Site.
- 4.3 The Staffordshire and Worcestershire Canal Conservation Area is located approximately 625 metres to the west of the Site. The Wolverley Conservation Area is located approximately 500-700 metres to the west of the Site.

4.4 A number of Sites of Special Scientific Interest (SSSIs) are located within the vicinity of the Site. These include:

- Stourvale Marsh SSSI is located approximately 930 metres to the south of the site;
- Puxton Marshes SSSI is located approximately 1080 metres to the south of the site;
- Hurcott Pasture SSSI is located approximately 665 metres to the south east of the site; and
- Hurcott and Podmore pools SSSI is located approximately 660 metres to the south of the site.

4.5 Land within the Site is categorised as Best and Most Versatile Agricultural Land – predominantly Grade 3A with Grade 2 in the north eastern corner.

The Site is located in Flood Zone 1 (a low risk zone).

### **Landscape Orientated Planning Policies**

#### **4.6 National Planning Policy Framework 2018**

The NPPF (July 2018), outlines within Section 17: Facilitating the Sustainable Use of Minerals, and specifically at paragraph 205, that *“when determining planning applications, great weight should be given to the benefits of mineral extraction, including to the economy”* and goes on within Section B, to explain that *“mineral planning authorities should: ensure that there are no unacceptable adverse impacts on the natural and historic environment, ... and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality.”*

At paragraph 10, the Framework explains that there is *“a presumption in favour of sustainable development”* and goes on in paragraph 170 to explain that *“planning policies and decisions should contribute to and enhance the natural and local environment by”* a number of factors including *“recognising the intrinsic character of the countryside”*.

#### **4.7 THE COUNTY MINERALS LOCAL PLAN**

The adopted **Hereford and Worcester Minerals Local Plan 1997** is the current minerals local plan. There are no saved policies which relate to Landscape Issues.

The **Emerging Minerals Local Plan** is at its Fourth Stage Consultation. Within the plan document there is a specific landscape policy MLP 23: Landscape

*Planning permission will be granted where it is demonstrated that the mineral development will protect, conserve and enhance the character and distinctiveness of the landscape.*

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*A level of technical assessment appropriate to the proposed development and its potential impact on the landscape will be required to demonstrate that, throughout its lifetime, the proposed development will:*

- a) *Optimise opportunities to enhance inherent landscape character, integrating other green infrastructure components where appropriate;*
- b) *Not have an unacceptable adverse effect on the inherent landscape character. The benefits of the proposal will be balanced against the significance of any impacts where the proposed development is likely to:*
  - i. *Result in significant change to the key characteristics of the landscape identified in the Worcestershire Landscape Character Assessment and Worcestershire Historic Landscape Characterisation; or*
  - ii. *Introduce landscape features that conflict with, or dilute, the inherent landscape character of the area; and*
- c) *Not have an unacceptable adverse effect on an Area of Outstanding Natural Beauty, taking into account the provisions of the relevant Management Plan:*
  - i. *Great weight will be given to conserving the landscape and scenic beauty of Areas of Outstanding Natural Beauty and proposals within them will be refused except in exceptional circumstances and where it is demonstrated that the proposed development is in the public interest; and*
  - ii. *Where the proposed development would affect the setting of an Area of Outstanding Natural Beauty, regard will be given to conserving and enhancing the natural beauty of the Area of Outstanding Natural Beauty*

### **THE DISTRICT COUNCIL LOCAL PLAN**

Wyre Forest District Council is the Local Planning Authority for the area. **The Current Local Plan** for the area comprises a number of documents, including the Core Strategy (2006-2026) adopted December 2010 and Site Allocations and Policies Local Plan (2006-2026), adopted July 2013. The following Landscape Orientated Planning Policies are relevant to the Site.

#### **Core Strategy (2006-2026)**

##### **CP12: LANDSCAPE CHARACTER**

###### Landscape Character

*New development must protect and where possible enhance the unique character of the landscape including the individual settlement or hamlet within which it is located. Opportunities for landscape gain will be sought alongside all new development, such that landscape character is strengthened and enhanced.*

*The Worcestershire County Council Landscape Character Assessment and Historic Landscape Characterisation will be used when determining applications for development within the rural areas. The Worcestershire Landscape Character Assessment and Historic Landscape Characterisation will form the basis for the development of supplementary guidance relating to landscape character.*

*Where it is considered appropriate to the landscape character, small scale development which can reasonably be considered to meet the needs of the*

*rural economy, outdoor recreation, or to support the delivery of services for the local community will be supported subject to it meeting all other relevant criteria within the LDF.*

*Caravan, Mobile Home and Chalet Developments*

*Applications for further mobile home, caravan and chalet developments within the District's rural areas will be resisted due to the collective impact which the existing sites have on the landscape.*

*Severn Valley Regional Heritage Park*

*The establishment of a Severn Valley Regional Heritage Park to link the historic towns and landscape from Stourport-on-Severn to Ironbridge will be supported and promoted during the plan period.*

**CP14: PROVIDING OPPORTUNITIES FOR LOCAL BIODIVERSITY AND GEODIVERSITY**

*Existing Biodiversity Sites*

*Biodiversity sites (Site of Special Scientific Interest (SSSI), National Nature Reserve (NNR), Local Nature Reserve (LNR) Special Wildlife Site (SWS)) and species and habitats recognised within the Worcestershire BAP will be safeguarded from development. The District Council will support the establishment of new sites where this is considered to be appropriate. Development which has a detrimental impact on habitats or provision for protected species will not be permitted.*

*New Development and Biodiversity*

*New development will be required to contribute towards biodiversity within the District, either by enhancing opportunities for biodiversity within the site or by making a contribution to off-site biodiversity projects. On brownfield sites, consideration should be given to incorporating existing flora and fauna where appropriate in order to preserve the site's ecological and biodiversity value.*

*New developments should take account of the location of and, aim to contribute to, the priorities established by the Worcestershire Biodiversity Partnership within the Biodiversity Opportunity Areas.*

*New developments must take measures to ensure that they have a positive impact on the ability of species to migrate to ensure diversity and as a response to climate change.*

*The biodiversity value of the Rivers Severn and Stour and the Staffordshire and Worcestershire Canal will be safeguarded. New development alongside these watercourses should maintain and enhance their biodiversity value.*

*Trees and Woodlands*

*In order to provide opportunities for increased biodiversity, existing trees and woodlands which have Tree Preservation Orders (TPOs) will be conserved and enhanced and, on appropriate development sites, new trees and woodlands will be planted in keeping with the landscape character of the area.*

*Geodiversity*

*New development must strive to enhance and not have a detrimental impact on the geodiversity of the District.*

## **Site Allocations (2006-2026)**

### **Policy SAL.UP1**

#### **Green Belt (Planning Policy)**

*Within the Green Belt, as designated on the Policies Map, development will not be permitted, except in very special circumstances, unless one of the following applies:*

- i. There is a clear need demonstrated for new buildings for the purposes of agriculture or forestry.*
- ii. Provision of appropriate facilities for outdoor sport, outdoor recreation and for cemeteries, as long as it preserves the openness of the Green Belt and does not conflict with the purposes of including land within it, or for other uses of land which preserve the openness of the Green Belt, and do not conflict with the purposes of including land within it.*
- iii. The replacement of a building, provided the new building is in the same use and not materially larger than the one it replaces.*
- iv. The development involves the re-use or conversion of buildings in accordance with the policies for the re-use and adaptation of Rural Buildings (SAL.UP11).*
- v. The proposals involve the redevelopment of an identified Previously Developed Site in the Green Belt and, are in accordance with the site specific policies contained in Part B.*
- vi. The proposals are part of a Community Right to Build Order.*

*Proposals within, or conspicuous from the Green Belt, must not be detrimental to the visual amenity of the Green Belt, by virtue of their siting, materials or design.*

### **Policy SAL.UP5**

#### **Providing Opportunities for Safeguarding Local Biodiversity and Geodiversity**

##### **1. Priority Species and Habitats**

*All new developments should take steps to enhance biodiversity both within and outside of designated areas. Development should, wherever possible and feasible, retain, enhance and manage and, if appropriate, reintroduce the District's indigenous biodiversity and in particular those species and habitats identified in the Worcestershire Biodiversity Action Plan.*

*Development which would have an adverse significant impact on the population or conservation status of protected species or priority species or habitat, as identified within a Biodiversity Action Plan, will be refused permission unless the impact can be adequately mitigated or compensated for by measures secured by planning conditions or obligations.*

##### **2. Designated Sites**

*Sites designated under national legislation are shown on the Policies Map (Sites of Special Scientific Interest (SSSIs), and National Nature Reserves (NNRs)), and will be protected under the terms of that legislation.*

*Locally important sites, including Local Nature Reserves (LNRs), Local Wildlife Sites (LWSs) and Local Geological Sites, are identified and will be protected and enhanced due to their importance locally.*

*Outside the areas designated, the interests of nature and biodiversity conservation must be taken into account, in accordance with national policy.*

*Any development which would have a detrimental impact on an existing or proposed nationally important or locally important site will be not be permitted unless:*

- i. There are no reasonable alternative means of meeting the need for the development nationally, or within the region, County or District, as appropriate to the particular level of importance of the site; and*
- ii. The reasons for the development outweigh the nature conservation value of the site itself and the need to safeguard the nature conservation value of the national, regional, County or District network of such sites. If harm is caused, appropriate mitigation measures should be implemented.*

*It will normally be necessary to maintain a buffer zone of undeveloped, natural or semi-natural land around such sites.*

### **3. Ecological Surveys and Mitigation Plans**

*Where evidence suggests that development may have an impact on a site of national, regional or local importance or a priority habitat or species, applicants will be expected to provide:*

- 1. A detailed ecological survey undertaken at an appropriate time, which assesses cumulative impacts, and other surveys as appropriate; and*
- 2. A mitigation plan that includes measures where appropriate, as follows:*
  - i. To minimise the adverse effect.*
  - ii. To make provision for the protection, and where desirable, the enhancement and management of the remainder of the site.*
  - iii. The provision, enhancement and management of compensatory land.*
  - iv. To facilitate the protection and survival of individual members of species protected under European law and their habitat, in situ; or in the case of species protected under British law, where this is not feasible, to provide adequate alternative habitat in the vicinity, and relocation.*
  - v. To relocate other material of importance to nature conservation.*
  - vi. To assist with habitation, including the provision of nesting boxes, lofts, dens, holts and setts, and appropriate ground preparation.*
  - vii. To facilitate natural movement of species via installation of features such as passage tunnels, and creation of links to other areas.*
  - viii. To maintain balanced and viable communities of flora and fauna.*

**Policy SAL.UP9**

**Landscaping and Boundary Treatment**

**1. Landscaping**

*Landscaping schemes must demonstrate that they:*

- i. Involve the predominant use of species native to the area, specifying their position and allowing adequate room for growth and acknowledge the importance of existing trees, hedges and plants.*
- ii. Incorporate the strategic use of thorny plants to help prevent crime and vandalism and where necessary incorporate tree guards.*
- iii. Incorporate features that clearly mark desire lines, enhance and create views or vistas, and clearly define public and private space.*
- iv. Include appropriate lighting and where appropriate utilise lighting and architectural features to give artistic effect.*
- v. Provide a management plan.*
- vi. Provide imaginative, porous hard landscaping solutions which are durable and add to a sense of place and local distinctiveness and meet the requirements of policy SAL.CC7.*
- vii. Take into consideration the Landscape Character Assessment and protect any existing trees and distinctive landscape features where possible.*

**2. Boundary Treatments**

*Boundary treatments must:*

- i. Reflect the local character and appearance of the area and protect existing trees or distinct landscape features.*
- ii. Include vegetation wherever possible.*
- iii. Give consideration to new woodland planting where new development is proposed alongside transport corridors.*

The **New Local Plan (2016-2034)** is at the consultation stage. The following draft landscape orientated planning policies have been included within a Preferred Options Document (June 2017). The responses to this consultation are still under consideration before the preparation of a pre-submission document. The weight of these policies is therefore still low.

**Policy 11C - Landscape Character**

**Landscape Character**

*New development must protect and where possible enhance the unique character of the landscape including the individual settlement or hamlet within which it is located. Opportunities for landscape gain will be sought alongside all new development, in order that landscape character is strengthened and enhanced.*

*The Worcestershire County Council Landscape Character Assessment and Historic Landscape Characterisation will be used when determining applications for development within the rural areas.*

*Severn Valley Regional Heritage Park*

*The establishment of a Severn Valley Regional Heritage Park to link the historic town and landscape from Stourport-on-Severn through to Ironbridge will be supported and promoted during the plan period.*

***Policy 11D - Protecting and Enhancing Biodiversity and Geological Conservation***

***Development*** should support the conservation, enhancement and restoration of biodiversity and geodiversity across the Plan Area. Specific provisions are identified below:

- 1. Full account will be given in making planning decisions to the importance of any affected habitats and features, taking account of the hierarchy of protected sites:***
  - i. Nationally important sites including Sites of Special Scientific Interest, National Nature Reserves and Ancient Woodlands.*
  - ii. Locally important sites including Local Wildlife Sites, Local Nature Reserves, Local Geological Sites and other priority habitats.*
  - iii. The ecological network of wildlife corridors that link the biodiversity areas detailed above, including areas identified for habitat restoration and creation.*
- 2. Net gains in biodiversity will be sought from all major development proposals through the promotion, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of legally protected and priority species populations. Delivery of net gains in biodiversity should be designed to support the delivery of the identified biodiversity network that crosses the Plan Area and links the main towns of Kidderminster, Stourport-on-Severn and Bewdley to the countryside, as well as the network within the towns themselves. The level of biodiversity net gain required will be proportionate to the type, scale and impact of development. Enhancements for wildlife within the built environment will be sought where appropriate from all scales of development.***
- 3. Development which would be likely to directly or indirectly impact the biodiversity value of a site will not be permitted unless:***
  - i. The need for and the public interest benefits of the development outweigh the harm, including any harm to the integrity of the ecological network.*
  - ii. The impacts cannot be avoided through an alternative, less harmful location, design or form of development.*
  - iii. The development demonstrates that it has proactively tried to avoid impacts on biodiversity and geological interests through*

- the design process prior to developing measures to mitigate or as a last resort to compensate for unavoidable impacts.*
- iv. The favourable conservation status of legally protected species is maintained.*
  - v. Impacts upon species, habitats or geodiversity can be reduced to a level whereby they are not significant by appropriate mitigation or as a last resort, by compensation.*
- 4. Development will provide for the long-term management of biodiversity features retained and enhanced within the site or for those features created off-site to compensate for development impacts.*
- 5. In the event of internationally designated sites being identified within the District following the adoption of this plan, full account will be taken of any adverse impact, on such sites by any future development proposals.*

**Policy 25 - Safeguarding the Green Belt**

*Within the Green Belt, as shown on the Key Diagram, development will not be permitted, except in very special circumstances, unless one of the following applies:*

- i. There is a clear need demonstrated for new buildings for the purposes of agriculture or forestry.*
- ii. Provision of appropriate facilities for outdoor sport, outdoor recreation and for cemeteries, as long as it preserves the openness of the Green Belt and does not conflict with the purposes of including land within it, or for other uses of land which preserve the openness of the Green Belt, and do not conflict with the purposes of including land within it.*
- iii. The replacement of a building, provided the new building is in the same use and not materially larger than the one it replaces.*
- iv. The development involves the re-use or conversion of buildings in accordance with the policies for the re-use and adaptation of Rural Buildings (especially Policies 8C (dwellings) and 21B (employment)).*
- v. The proposals involve the redevelopment of an identified Previously Developed Site in the Green Belt and, are in accordance with the site specific policies contained in Part C.*
- vi. The proposals are part of a Community Right to Build Order.*

*In addition, development of housing in the Green Belt will not be permitted unless one of the following circumstances applies:*

- a. There is a proven need in association with the purposes of agriculture or forestry.*

- b. *It is for small-scale affordable housing, reserved for local needs in accordance with Addressing Rural Housing Needs (Policy 8C).*
- c. *It is for the extension of an existing dwelling, provided that it does not result in disproportionate additions over and above the size of the original dwelling. Applications for extensions to existing dwellings will be considered on a case by case basis.*

*Proposals within, or conspicuous from the Green Belt, must not be detrimental to the visual amenity of the Green Belt, by virtue of their siting, materials or design.*

*The development of specific sites comprising previously developed land is considered by Policy 34.*

## **5.0 LANDSCAPE CHARACTER**

5.1 Landscape Character is described at four levels within this section. At the National Level, Regional level, the Local and Site level, to help to fully appreciate and understand its component elements, features, interactions and its susceptibility to change.

### **5.2 NATIONAL LEVEL**

At the National Level the Site is located within **National Character Area 66 Mid Severn Sandstone Plateau**. This area is described as a central catchment of the Severn and Lower Stour Rivers. Heathland and acid grassland are stated as being once widespread in the NCA but now survive in small discrete areas, particularly in the south near Wyre Forest. Interlocking blocks of mixed woodland and old orchards provide a well-wooded landscape and conifer plantations combine with parklands to evoke an estate character in places.

Key Characteristics relevant to the site include;

- *Extensive sandstone plateau in the core and east of the NCA underpins an undulating landscape with tree-lined ridges; this contrasts with the irregular topography and steep, wooded gorges of the Severn Valley in the west.*
- *The plateau is drained by the rivers Worfe and Stour and fast-flowing streams in small wooded, steep sided streamside dells, locally known as dingles.*
- *The main river is the fast-flowing Severn, flowing north to south.*
- *Interlocking blocks of woodland and old orchards provide a well wooded landscape and conifer plantations combine with parklands to give an estate character. Wyre Forest is part of one of the largest ancient lowland oak woods in England.*
- *Large, open arable fields with a weak hedgerow pattern on the plateau contrast with mixed arable and pasture land with smaller, irregular-shaped fields bounded by hedgerows with hedgerow oaks in the west.*

- *Characteristic lowland heathland associated with acid grassland and woodland supports nationally important populations of flora and fauna, notably butterflies.*

Statements of Environmental Opportunities relevant to the site and its location include:

***SEO 1** Protect, expand and appropriately manage the characteristic habitats of the NCA, specifically lowland heathland, acid grasslands and woodland including orchards and hedgerows.*

***SEO 2** Protect and manage the rivers and streams of the NCA to mitigate the extremes of drought and flood events and protect the water quality of the River Severn*

Recent changes, relevant to the site and the proposed development in the landscape state:

- There is a developing woodland framework in the NCA with 7% of the NCA broadleaved mixed and yew woodland and local evidence concurs with evidence from the Countryside Quality Counts Survey indicating that the woodland character of the area is strengthening.
- A weak hedgerow pattern exists over much of the plateau in the central and eastern areas of the NCA which, contrasts with the river valleys in the west which comprise areas of smaller, irregular shaped fields with more distinctive hedgerows containing hedgerow oaks
- Large estate farms have traditionally used local sandstone as a material for field boundary walls. Many have fallen into disrepair, but Environmental Stewardship schemes have stimulated the repair and reinstatement of over 6km of stone walls.
- Over the last ten years there have been large improvements to the environmental performance of modern manufacturing and extractive industries, and this has benefited wildlife and the natural environment.
- There are significant deposits of sand and gravel across the NCA. A number of extraction sites have been identified and are currently non-operational, although this could change if demand from the construction industry for the product increases.

### **REGIONAL LEVEL**

At a regional level, within Worcestershire County, the Worcestershire Landscape Character Assessment defines 'Regional Character Areas' with broad variations, discernible as generic 'Landscape Types', which may occur anywhere in the county where the same combination of physical and cultural landscape attributes occurs.

- 5.3 Worcestershire County Council produced as supplementary planning guidance, a Landscape Character Assessment dated 1999 which divided the County into 12

character areas. The Site is located within the Kinver Sandlands Landscape Character Area which is largely based on the underlying geology of the area. It is described as an area *“important for its sandy well drained soils and their tendency to support heathland. The Rivers Severn and Stour are important wildlife corridors containing marshlands”*. It goes on to state that *“In the past, heathland was probably much more extensive, developing on land cleared for agriculture from the original forest and then neglected, before eventually reverting to woodland. Lowland dry heathland is one of Britain’s most threatened habitats with large areas having been destroyed by housing or cultivation.”*

#### 5.4 **LOCAL LEVEL**

Worcestershire County Council also produced a more detailed map of landscape types in 2012 which is available as website data. At the specific local level ‘Landscape Description Units’ (LDU’s) are utilised with Local Cover Parcels (LCP’s) to describe local variations that may be present and visually apparent within larger LDU’s. At the local level the Site is located within the Landscape type of **Sandstone Estatelands**. See LVIA Figure 4 within Appendix B.

The following is a description of this landscape type

*An open, rolling landscape characterised by an ordered pattern of large, arable fields, straight roads and estate plantations. Fields are typically defined by straight thorn hedges, reflecting the late enclosure of much of this landscape from woodland and waste. This historic land use pattern is also reflected in the occurrence of isolated brick farmsteads and clusters of wayside dwellings, interspersed with occasional small villages. Despite the fact that this is a functional landscape, the consistent geometric pattern can convey a strong sense of visual unity.*

#### 5.5 The key characteristics include the following:

##### *Primary*

- *Arable use*
- *Hedgerow boundaries to fields*
- *Planned enclosure pattern- straight roads and field boundaries*

##### *Secondary*

- *Discrete pattern of woodland blocks*
- *Planned woodland character- estate plantations and groups of trees*
- *Large-scale landscape with wide views over open farmland*
- *Impoverished soils with relic heathy vegetation*
- *Dispersed pattern of isolated farmsteads and scattered wayside dwellings*
- *Discrete settlement clusters often in the form of small estate villages*

##### *Tertiary*

- *Rolling topography*

Landscape guidelines for this landscape type include:

- *Conserve and restore the distinctive hedgerow pattern with priority given to primary hedgerows.*
- *Identify opportunities for further large-scale planting of woodlands and tree belts to strengthen the regular patterns of the landscape.*
- *Conserve and restore parklands*
- *Conserve and enhance tree cover along watercourses*
- *Promote the creation and appropriate management of natural vegetation communities along highways and other non-farmed areas*
- *Promote the development of wide field margins for wildlife benefit*

5.6 Within the Sandstone Estatelands Landscape Type, the area is divided into Landscape Description Units (LDU). The following LDU (KS22.1 Churchill Sandstone Estatelands) covers the Site is described as follows:

*An area of soft sandstone with an intermediate, undulating topography and impoverished sandy soils. The land use is arable, and the tree cover comprises an ordered pattern of large plantations, together with parkland and belts of trees. The settlement pattern is one of small villages and hamlets, associated with a low level of dispersal and sub-regular pattern of fields, derived mainly from arable fields:*

- *Redbrick*
- *Thorn hedges*
- *Localised patches of gorse*
- *Mixed farming*
- *Localised sequences of pools associated with valley bottoms and wet land associations*
- *Woodland localised in the south of area*
- *Relic deer park and designed landscape*
- *Wooded streams*  
*Condition (updated 2009)*
- *Moderate to high intensity farming with a generally intact field pattern declining in places*
- *Boundaries in variable condition*
- *Localised impact of modern ribbon development in the Hagley-Kidderminster corridor*
- *Localised moderate impact of amenity land use.*

5.7 As a function of landform and topography three further landscape character types could be influenced by the Proposed Development. These are located at ~2 to 5km to the west of the Site. These are as follows:

The **Riverside Meadows** Landscape Character Type is within close proximity to the north western boundary of the Site, set down within in a natural river valley. The following is the description of this landscape type:

*A linear riverline landscape associated with a flat, generally well-defined alluvial floodplain, in places framed by steeply rising ground. This is a secluded pastoral landscape, characterised by meandering, tree lined rivers, flanked by alluvial meadows and grazing animals.*

The key characteristics include the following:

*Primary*

- *Flat low-lying topography*
- *Pastoral land use, including seasonal grazing meadows*
- *Tree cover character of individual trees rather than woodland*
- *Tree cover pattern of linear tree belts along ditches, water-courses and in hedgerows*

*Secondary*

- *Unsettled with few roads*
- *Seasonally flooded alluvial floodplain*
- *Meandering river channel*
- *Medium-to- large fields with hedge and ditch boundaries*
- *Rushes, reeds and other wet land vegetation*

**Principal Timbered Farmlands** is described as a small to medium scale wooded, agricultural landscape characterised by filtered views through densely scattered hedgerow trees. This is a complex, in places intimate, landscape of irregularly shaped in woodlands, winding lanes and frequent wayside dwellings and farmsteads. It is a landscape of great interest and exception, yet also one of balance.

*Key Characteristics*

*Primary*

- Hedgerow boundaries to fields
- Ancient wooded character
- Notable pattern of hedgerow trees, predominantly oak

*Secondary*

- Organic enclosure pattern
- Small-scale landscape, hedgerow trees creating filtered views
- Brick and timber building style of old properties

*Tertiary*

- Mixed farming land use
- Dispersed settlement pattern

The area is characterised by a mosaic of agricultural land cleared directly from woodland, on a piecemeal basis, together with land enclosed from former localised

areas of open fields, resulting in the dispersed pattern of farmsteads and wayside cottages and lack of strong settlement nuclei.

### 5.13 **Description of the Site and its Immediate Surroundings**

The Site itself contains two distinct landscape characteristics. Firstly, the enclosed Western Area and the majority of the Eastern Area which is contained by a combination of landform, topography, woodland blocks and in parts a stone/brick wall. Please see LVIA Figure 5 within Appendix A. These morphological and structural elements combine to create a contained block of land with peripheral screening surrounding a degraded inner parkland landscape with an agricultural land use and setting. The form of the character is mainly geometric with large agricultural fields bounded by straight sections of woodland and an inner linear track adjoining which are the remnants of a formal tree lined avenue.

The outer Eastern Area of the Site displays a distinct character of a much more open nature. Landform and topography combine to create a visually exposed slope more associated with the old Lea Castle Hospital Site and adjoining fields to form a wider local valley context landscape to the east.

### 5.15 **Potential Landscape Effects results from the Proposed Development**

The Proposed Developments changes/ effects on landscape character aspects have been considered at both the operational and post restoration stages of the development. The main potential changes (effects on landscape character aspects) are considered to be:

#### 5.16 During the Operational Stage

- Progressive disturbance of land and temporary land use change from agricultural to quarrying activities and sequential restoration
- A new site access and vehicle movements
- Plant site and associated activities
- Temporary soil storage and screening bunds
- Loss of vegetation
- Temporary diversion to Public Right of Way
- Temporary removal of a section of existing wall

#### Post Restoration

- Changes to original landform and levels
- Changes to vegetation
- Changes to human (receptor) use of the Site/character.

### 5.17 Landscape Character Assessment

The methodology at Appendix C sets out how value, susceptibility and overall sensitivity is determined for each landscape receptor. The value of the individual landscape elements takes into account the other baseline studies associated with this application that provides an indication of condition and quality and also includes an assessment of the rarity and representativeness of the individual features in the local landscape and its nature conservation value. Other considerations include an understanding of:

- Scenic quality
- Recreational value
- Perceptual aspects including tranquillity
- Cultural and historic associations

### 5.18 Assessment of Landscape Sensitivity

Landscape receptors need to be assessed in terms of their sensitivity, combining judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape. For consistency we have assessed the landscapes sensitivity to change in respect of the wider regional character, the site local landscape character types and the specific landscape descriptive units within which the Site is located and the Site itself. The assessed sensitivity is stated in Table 2 below.

### 5.19 Table 2: Assessment of Landscape Sensitivity

WORCESTERSHIRE COUNTY COUNCIL LANDSCAPE CHARACTER AREAS	SENSITIVITY TO CHANGE
Regional Character- Kinver Sandlands (LCA)	Medium
Sandstone Estatelands (LCT)	Medium
River Meadows	Medium to High
The Principle Timbered Farmlands	Medium
The Principle Wooded Hills	Medium
Churchill Sandstone Estatelands (LDU KS22.1)	Medium
Site	Medium

5.20 In respect of the Kinver Sandlands, LCA, Sandstone Estatelands LCT, Churchill Sandstone Estatelands LDU and the Site itself, the main consideration and reasoning behind the assessment of the sensitivity of the identified landscape character levels to change associated with a mineral type development, is that all levels of characterisation generally still contain and reflect the typical combination of elements and features upon which they have been defined by Worcestershire County Council. This combination creating a landscape of rolling landform, characterised by an ordered pattern of large arable farms, straight roads and woodland/plantations which provides both containment of large areas of land

whilst allowing larger distant views to other character types. The quality of the landscape elements and features being generally present and average but with localised degradation. The combined sensitivity allowing for the potential integration of a designed minerals-based development, as long as it respects the local character, minimises the loss of its land use structural elements and includes guidelines for its future enhancement. The sensitivity to change of the Riverside Meadows LCT is considered to be Medium to High as the unity derived from the Riverside Corridors is becoming fragmented by the encroachment of previous development and arable land uses and decline of traditional farming practices.

#### 5.21 **Assessment of Magnitude of impact of the proposed development**

Magnitude is a term which combines “judgements about the site and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration”. (GLVA3). The magnitude of existing and potential landscape character effects resulting from the actual proposed development have been evaluated in terms of its size/scale, geographical extent, duration and reversibility.

##### **Magnitude of Effect**

Magnitude of Effect associated with the Proposed Development is assessed against the following:

- a. The current situation
- b. The operational period
- c. Post restoration period

The degree of effect the development is likely to generate is linked to the scale and duration of the Proposed Development, the extent to which the development is visible within the surrounding landscape as well as the extent to which the development is at variance to or conflicts with the key characteristics of the landscape character area/types/LDU. Distance is also a key factor in determining levels of impact. This effect can be either adverse or beneficial in nature. This aspect of the assessment utilised a 6-point textural scale which ranged from Neutral. Very Low-Low-Medium-High-Very High.

5.22 **Table 3:** Assessed Magnitude of Effect from the proposed development on Landscape Character

Development	The proposal is for the establishment and operation of a new access into the Site, the extraction of mineral and erection of a minerals plant site and ancillary facilities below ground level, the progressive soil stripping and storage, mineral extraction and restoration of areas of sequentially disturbed land. Mineral products to be sold and delivered off site with a restricted volume of inert materials being returned to the site to aid in creating the final restoration landform onto which only original site indigenous soils will be replaced to create the soil profile.	
Size/scale	The size and scale of the proposed development is progressive within the site. The planning application area being 46 Ha. The full area of mineral extraction including the plant site being 26 Ha. Of this, the largest area of disturbance of land at any one time period will be approximately 10 Ha (within Phase 4). This area being less than half of a field within the current site land use layout. Individual proposed elements are relatively small. The plant will comprise a loading hopper of approx. 4m in height, field conveyor of approximately 1m in height, a processing plant with integral water management of up to 13m in height. Land outside the extraction area being within the planning application boundary to allow both habitat creation and increased public access within the planning boundary.	
Geographical extent	The proposed development will occupy 46 Ha of land including access/ vehicle circulation routes. Its physical geographical influence being contained by either vegetation structure, access roads, field boundaries or landform. Its visual geographical influence given its height, scale and mass combined with its location within an undulating landform morphology being limited. The Western and Central Areas of the Site are specifically geographically contained.	
Duration	Operational period – Temporary Post Restoration period - Permanent	
Assessed Magnitude of effect	Operational period	Low to Medium
	Post Restoration period	Medium to High

5.23 **Assessment of Significance of Impact of the Proposed Development**

The assessed significance of impact on the Site and local Landscape Character has been determined by combining the assessed sensitivity of the Site and the character areas it is located within and/or which it may have a geographical visual influence,

with the predicted magnitude of effect associated with the Proposed Development. This has provided an overall Significance of Effect value which describes the potential overall impact the Proposed Development will have on the local Landscape Character. For consistency and comparison, we have applied the same assessment to the current situation and land use activity taking place within the site.

5.24 Tables 4, 5 and 6 summarise the assessment of the Current Situation Proposed Development and at Post Restoration on Landscape Character. This includes the direct effect of disturbance on the identified landscape character area type and LDU within which the Site is located, as well as the indirect effect upon the Riverside Meadows, Principal Woodland Hill and Principal Timbered Farmlands.

**Table 4:** Current Site’s activities effect on Local Landscape Character

LANDSCAPE CHARACTER			
Areas	Sensitivity	Magnitude of Current Site Land use’s	Assessed level of significance
Kinver Sandlands (LCA)	Medium	Very Low	Very Slight Adverse
Riverside Meadows (LCT)	Medium-High	Neutral	Neutral
Sandstone Estatelands (LCT)	Medium	Very Low	Very Slight Adverse
Principal Timbered Farmlands	Medium	Very Low	Very Slight Adverse
Principal Wooded Hills	Medium	Very Low	Very Slight Adverse
Churchill Sandstone Estatelands (LDU K522.1)	Medium	Very Low	Very Slight Adverse
The Site	Medium	Very Low	Very Slight Adverse

Mineral activity will introduce a new vehicle access, a quarry plant site and extraction and restoration machinery in to the agricultural landscape. During the operational period the quarry will be progressively worked with sequential restoration taking place. This will minimise the potential for disturbed land (out of character with its setting) during the life of the development.

**Landscape Mitigation and Enhancement Measures Associated with the Proposed Development**

As part of the application and integrated within both the operational and post restoration stages of the proposed development the following Landscape Character Mitigation and Enhancement Measures are proposed;

*During Initial Works*

Mitigation

- Minimisation of land required for quarrying activity at any one time through progressive phased working and restoration.
- Limiting mineral extraction within the identified structurally and visually contained areas of the application boundary.
- Minimising of proposal site internal vehicle access route from Wolverley Road to the plant site.

## Lea Castle LVIA

- Lowering the proposed Plant Site level by ~7m (minimum) adjacent to surrounding ground levels.
- Placement of temporary soil storage/screening bunds around the periphery of the Plant Site.
- The proposed extraction area has been reduced to ensure that all tree root protection areas suggested with the Pre-development Tree Condition Survey are avoided.

### Enhancement

- Creation of ~1.5km of new footpaths, bridleways and cycleways to connect into the wider public access network
- Re-establishment of avenue trees adjacent to PROW ref 62 6(B) and 62 5(B)
- Strengthening and re-establishment of hedgerows (~600 liner m's) with native species (H1, H2 and H3)
- Permanent Aftercare and Management of land and new features.

### *During Progressive Operational Phases*

#### Mitigation

- Progressive restoration to ensure a minimum area of disturbed land at any one time period
- Temporary storage and the direct placement of stripped soils for restoration to maintain the on-site soil resources and agricultural land quality
- Use of imported soils and overburden to help create a restored landform appropriate to the Sandstone Estates LCT and Churchill Sandstone Estatelands LDU
- No Closure of any public rights of way. Note there will be a temporary diversion of PF 624 (B) for ~2 years and 62 6(B) for ~ 2 weeks.

#### Enhancement

- Creation of pocket parks for welfare, health, amenity and educational use.

### *During Post Restoration*

#### Enhancement

- The recreation of a quality landscape agricultural parkland which reflects the historic landscape setting associated with the lost Lea Castle Hall and parkland built around 1762 and demolished in 1945.
- Use of the landscape for health, education and wellbeing and public enjoyment including pocket parks
- Enhancement of the natural and historic environment with the creation of ~8 hectares of Acidic Species Rich Meadow, reinstatement of Broom Covert woodland and shrub planting, planting of specific species including hazel to try to encourage dormice to the area, planting of ~6000 native trees and shrubs. Planting of avenue and parkland trees throughout the site to

reintroduce parkland structure and raise the visual amenity of the restored landscape and wilder landscape character.

## **The Findings of the Landscape Assessment**

### *Operational Period*

No woodland will be lost. Five individual trees will be felled. T8, within Phase 3 is dead, T10 a TPO tree in Phase 3 and T22 in Phase 1 being category C trees (those of low quality), T9 a TPO tree within Phase 3 being a category B tree (moderate quality) and T26 within Phase 4 being a category A tree (high quality). The Proposed Development will ensure that root protection areas and protective fencing suggested within the Pre-Development Tree Conditions survey are implemented.

These vegetative elements are of medium sensitivity and would represent a Low Magnitude in the context of the substantial areas of woodland, trees, hedgerows in the locality within and close to the site. This will result in a Very Slight adverse effect that is Not Significant. This is due to the disturbance of the soil profile and removal of agricultural land (partly temporary and progressively).

The scheme proposes both advanced and progressive restoration planting of approximately 200 avenue trees, 1000 parkland trees and 579 linear metres of new hedgerow. Given the degraded nature of vegetative elements of the Site compared to the original historic parkland layout these vegetative elements are considered of medium sensitivity and would result in a High Magnitude. This will result in a Notable Beneficial effect which is Not Significant.

All land is of Best and Most Versatile Agricultural Land as assessed in Chapter 13. No soils will be lost, the full topsoil, subsoil and overburden will be progressively restored. The sensitivity of the agricultural land is assessed as Medium. The disturbance of agricultural land and its progressive restoration is assessed as a Low Magnitude and would result in an overall Slight Adverse effect which is Not Significant.

Quarry extraction will result in a change in topography and landform (lowering ground levels) with progressive restoration utilising both in-situ material and imported inert materials. The sensitivity of the Site/local landform elements is assessed as Medium. The sequential change in landform and topography is assessed as of Medium Magnitude. This will result in a Moderate adverse effect that is Not Significant. The progressively restored landform reflecting the general land form and gradients of surrounding land.

5.26 **Table 5:** The Proposed Development Effect on Local Landscape Character during the Temporary Operational Period

LANDSCAPE CHARACTER			
AREA	Sensitivity	Proposed Temporary Development Magnitude	Assessed level of significance
Kinver Sandlands (LCA)	Medium	Low	Slight Adverse
Riverside Meadows (LCT)	Medium/High	Neutral	Neutral
Sandstone Estatelands (LCT)	Medium	Low - Medium	Slight – Moderate Adverse
Principal Timbered Farmlands	Medium	Low	Slight Adverse
Principal Wooded Hills	Medium	Low	Slight Adverse
Churchill Sandstone Estatelands (LDU K522.1)	Medium	Medium	Moderate Adverse
The Site	Medium	Medium	Moderate Adverse

It is considered that the Sandstone (LCT) are generally robust and retain the key elements and features which define its character over a large geographical area. During the operational stage of the Proposed Development, temporary built forms will be introduced within relatively small phased geographical areas. It is considered that these can be integrated and absorbed into the LCT with a Slight to Moderate Adverse effect which is Not Significant. Although this is a higher level of disturbance than is currently being experienced as a result of agricultural and motorcross activities, the advanced and progressive vegetation and amenity enhancement measures including the reinstatement of parkland avenue trees limit the potential for adverse effects. As the geographical area is reduced in relation to the characteristics of the Churchill Sandstone Estatelands LDU and the Site itself, the potential for adverse effects rises to Moderate Adverse. This again is balanced by the ability of the scheme to be worked progressively with restoration minimising areas of potentially disturbed grounds along with parkland/amenity and bridleway enhancement. Post restoration, both the Site and the Churchill Sandstone LDU are assessed as resulting in a Notable Beneficial level of Significance as a result of the continued landscape, amenity and bridleway enhancement proposals. This is further strengthened by proposals by the landowner to enter into a long-term management agreement/ legal agreement to manage and maintain the restoration land uses.

The application Site is located wholly within the Green Belt. Although this is a planning designation, not landscape, the aspect of openness within the identified landscape character(s) can be described.

#### *Post Restoration*

The Site would be restored back to its key current characterful land use elements and features of an undulating and sloping landform linking into surrounding topography. This would reflect Site/locally observed aspects. The restoration scheme will also be diversified in respect of both vegetative elements (species rich acid grassland, species rich hedgerows and historic reference planting of avenue

trees and parkland trees and amenity aspects including (~2.3km of new PROW footpaths, bridleways and cycleways, pocket parks/ opportunities for human enjoyment and restoration/ leisure within the landscape).

In summary at Post Restoration there will be the implementation of a Strategic Green Infrastructure approach, which will strengthen and reintroduce appropriate landscape elements and features which respect and replicates the Sites historic past, while providing new and increased diversity and net gain of individual landcover elements (i.e. trees, hedgerows, shrubs) and amenity and wellbeing opportunities that would represent a Very High Magnitude with a Medium Sensitivity, resulting in an overall Notable Beneficial effect which is Significant.

5.27 **Table 6:** The Proposed Developments Effect on Local Landscape Character during the Post Restoration Period

<b>LANDSCAPE CHARACTER</b>			
<b>LANDSCAPE CHARACTER AREA</b>	<b>Sensitivity</b>	<b>Post Restoration Magnitude</b>	<b>Assessed level of significance</b>
<b>Kinver Sandlands (LCA)</b>	Medium	Low	<b>Slight Beneficial</b>
<b>Riverside Meadows (LCT)</b>	Medium/High	Neutral	<b>Neutral</b>
<b>Sandstone Estatelands (LCT)</b>	Medium	Medium - High	<b>Moderate / Notable Beneficial</b>
<b>Principal Timbered Farmlands</b>	Medium	Very Low	<b>Very Slight Beneficial</b>
<b>Principal Wooded Hills</b>	Medium	Very Low	<b>Very Slight Beneficial</b>
<b>Churchill Sandstone Estatelands (LDU K522.1)</b>	Medium	High - Very High	<b>Notable Beneficial</b>
<b>Site</b>	Medium	High - Very High	<b>Notable Beneficial</b>

The Site contains two distinct area of openness.

Firstly, the enclosed Western Area and the majority of the Eastern Area which is contained by a combination of landform, topography, woodland blocks and in parts a stone/brick wall. These morphological and structural elements combine to create a screened periphery, surrounding a degraded inner parkland landscape and new agricultural land use and setting. The form of the character is mainly geometric with large agricultural fields bounded by straight sections of woodland and an inner linear track adjoining which are the remnants of a formal tree lined avenue.

Secondly, the outer Eastern Area of the Site displays a different level of openness, much more open and exposed in nature. Landform and topography combine to create a visually exposed slope, more associated with land adjacent to the old Lea Castle Hospital Site and adjoining fields to form a wider local valley contextual landscape to the east.

The proposed mineral extraction area and plant site will be located within the former enclosed landscape. The plant site itself being sited ~7m below existing ground levels. It is proposed to mitigate against potential visual, noise and dust effects with the introduction of grassed soil bunds and agricultural hay bales. These features will only be temporary. The nature of the proposals phased working and

restoration proposals will also ensure potential disturbance to a site-specific area of openness will be minimized and temporary.

### **Cumulative Landscape Assessment**

Other development local to the Site which may result in change to/within the Sandstone Estatelands LT appear to be limited to the permitted residential development at the disused Lea Castle Hospital site and the potential additional residential development adjacent to the old hospital site. There are also other promoted residential areas to the south and east of the Site.

We can assess the permitted residential scheme on landscape character which could result in a disturbance of land use within the Landscape Type. This development is in close proximity to the proposed quarry development. Given that much of the Lea Castle Hospital site land is already disturbed/ brownfield, it is assessed that the potential for cumulative landscape impact is very low within the operational period of the quarry and potential beneficial at post restoration given the enhanced landscape and amenity opportunities provided by the quarry application for the local area and its community.

## **6.0 VISUAL MATTERS**

- 6.1 Desk top and Site survey works have identified the areas and Landscape and Visual receptor locations from which the existing Site and the Proposed Development may be visible, along with the different groups of people who may experience views of the development and its specific elements and features, the viewpoints where they will be affected and the nature of the views at these points.
- 6.2 This baseline and assessment work has been carried out by initially mapping the geographical extent of the study area where receptors have the potential to view the current Site and the Proposed Development. This was carried out digitally through the production of Zones of Visual Influence (ZTVI).
- 6.3 This was initially carried out based upon the Sites current situation where ground levels are generally flat, varying from ~55m above Ordnance Datum (m aOD) to ~83m aOD. No physical structures or vegetation have been assessed as part of this current situation. This was set within a surrounding 5km topographical and landform data grid.
- 6.4 The findings of this ZTVI are illustrated on LVIA Figure 6 (Appendix B). As can be seen, the current Zone of Visual Influence of the Site is relatively contained. The locations where the greatest visibility of current Site topography and the agriculturally disturbed land areas are likely to have the highest magnitude of impact are located within the Site itself. The exceptions to this being a visual seepage of higher potential visual magnitude to the north east of the Eastern Area, along with land to the east, across the Wolverhampton Road and towards the old Lea Castle Hospital.

- 6.5 LVIA Figure 7 illustrates the ZTVI of the Proposed Development during Phase 2. This includes mineral extraction within the western area of the Site and the plant site in operation, together with grass seeded and maintained screening bunds and progressive restoration. Purely based upon topographical data, the model demonstrates that the potential of higher areas of visual magnitude emanating from the quarry development would be internal to the Site. Mid-range intensities of potential magnitude to the Site external land could also occur.
- 6.6 LVIA Figure 8 illustrates the ZTVI of the Proposed Development during phases 4 and 5. This includes mineral extraction within the two phases within the Eastern Area along with plant site equipment and operations, together with grass seeded and maintained screening bunds and the restoration of the Western Area. The potential for higher areas of visual magnitude generally reflecting that of the current ZTVI but with a slightly wider geographical spread of higher medium levels along the northern and eastern boundaries of the Site.
- 6.7 LVIA Figure 9 illustrate the ZTVI of the proposed development post restoration. This includes the restored landform. As per the current situation all disturbed land has been assessed in respect of its visual influence. The ZTVI highlighting that again the higher visual intensity magnitude levels are Site internalised and similar to those being experience within the current situation.
- 6.8 Based upon the above desk top research and assessment works, a detailed visual Site survey took place being guided by both the current and proposed ZTVI's. Both ZTVI mapping and Site surveys assume that the observers eye height is some 1.6 above ground level, based upon the midpoint of average heights for men and women.
- 6.9 The Site survey considered the viewpoint from which the current situation and the proposal will actually be seen by differing groups of people. These groups included:
- Residential visual receptors in private properties;
  - Public viewpoints e.g. public rights of way, inland waterways and public open space (POS);
  - Places where people work;
  - Transport routes where there may be views from private vehicles and from different forms of public transport; and
  - Visitors to the area/ using local recreation/ leisure and tourist activities.
- 6.10 LVIA Figure 10 illustrates representative visual receptor locations from within the identified ZTVI of the proposed operational developments potential visual envelope. These receptor locations have been used to describe the types and levels of potential visual change and effect to local receptors. The visual receptor locations (32 in number) are illustrated looking towards the site on Photographic Sheets 1 to 16 (Appendix B). These illustrate a representative section of existing and potential views of the Site and the Proposed Development and Site activities.

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Photosheet 1 (Receptor Viewpoints 1 and 2)	Receptor photographic view from land located to the north/ east of the Site including the high ground within the proposed Lea Castle Village (PROW ref. 52 8(B)) and adjacent views from Wolverhampton Road.
Photosheet 2 (Receptor Viewpoints 3 and 4)	Receptor photographic view from land located to the east of the Site including high ground within the proposed Lea Castle Village and traffic light junction of the A449 and B189.
Photosheet 3 (Receptor Viewpoints 5 and 6)	Receptor photographic view from land located to the south east of the Site including properties off Stourbridge Road and Heath Drive.
Photosheet 4 (Receptor Viewpoints 7 and 8)	Receptor photographic view from the north east of the Site including residents at North Lodge and users of FP 62 5(B).
Photosheet 5 (Receptor Viewpoint 9)	Receptor photographic view from the north eastern area of the Site from land adjacent field boundary/land to the White House / Castle Barns.
Photosheet 6 (Receptor Viewpoint 10)	Receptor photographic view from the access road to Castle Barns plus the existing boundary and inward facing windows of these receptors.
Photosheet 7 (Receptor Viewpoints 11 and 12)	Receptor photographic view from land located to the southern boundary of Cookley including residential properties off Westhead Road and Woodlands Road.
Photosheet 8 (Receptor Viewpoints 13 and 14)	Receptor photographic view from land located to the north of the Site including Keepers Cottage and Lea Castle Equestrian Centre.
Photosheet 9 (Receptor Viewpoints 15 and 16)	Receptor photographic view from FP 62 5 (B) looking west towards phases 1 and 2 of the site and along FP 62 5 (B).
Photosheet 10 (Receptor Viewpoint 17)	Receptor photographic view from land adjacent to the Bungalow at Lea Castle Equestrian Centre looking south and west.

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Photosheet 11 (Receptor Viewpoints 17 and 18)	Receptor photographic view from boundary of garden/paddock land looking east toward the Site, and individual receptors off Brown Westhead Park Road.
Photosheet 12 (Receptor Viewpoints 19, 20, 21 and 22)	Receptor photographic view from land located to the west of the Site including Brown Westhead Park/ Wolverley Camping and Caravan Club and FP 62 2(B) and 62 3(B).
Photosheet 13 (Receptor Viewpoints 23, 24 and 25)	Receptor photographic view from land located to the south west of the Site including Wolverley Road and Brown Westhead Road and south of Wolverley Road adjacent to Heathfield School and from within the school grounds.
Photosheet 14 (Receptor Viewpoints 26, 27, 28 and 29)	Receptor photographic view from land located to the south west of the Site including Sion Hill, South Lodge/FP 62 5(B) vehicle entrance to Abbot Croft and Wolverley Road.
Photosheet 15 (Receptor Viewpoint 30)	Receptor photographic view from land to the south of the Site adjacent to the Eastern Area at Broom Cottage (which is under the control of the applicant).
Photosheet 16 (Receptor Viewpoint 31)	Receptor photographic view from land to the south of the Site over the Wolverley Road from land adjacent to the property Four Winds.

- 6.11 Table 8 summarises the visual receptors identified and the effects that have been considered with an assessment of their significance based upon the methodology described within Appendix C of this report.
- 6.12 This is first determined by assessing Sensitivity of Visual Receptors to change from this type of development proposal (Table 7) and then the magnitude of the visual effect, its size/scale, geographical extent, duration and reversibility (Table 7). Associated with the proposed development a judgement on the sensitivity of visual receptors and magnitude of the effect are then combined to assess the overall significance of visual impact/effects.
- 6.13 The susceptibility of visual receptors to changes in view and visual amenity is mainly a function of *“the occupation or activity of people experiencing the view at particular locations and the extent to which their attention or interest may therefore be focused on the views and visual amenity they experience at particular locations”* (GVLA page 113).

6.14 Table 7 Susceptibility of Visual Receptors to Change

Receptor No	Visual Receptors	Assessed Susceptibility to change of Visual Receptors	Assessed Value of View	Overall Assessment of Sensitivity of Visual Receptor
1	Users of PROW F62 8(B) looking south westwards towards the Site's eastern boundary	Medium	Medium	Medium
2	Users of Wolverhampton Road looking south westwards towards the Site's eastern boundary	Low	Low	Low
3	Users of Wolverhampton Road, Wolverley Road and Park Gate Road traffic light junction	Low	Low	Low
4	Users of Park Gate Road looking westwards to the Site's eastern boundary	Low	Low	Low
5	Residents located off Stourbridge Road A451 looking north westwards towards the Site's eastern boundary	High	Medium to High	High
6	Residents located off Heath Drive looking north westwards towards the Site's eastern boundary	High	Medium to High	High
7	Residents of North Lodges looking south towards the Site's northern boundary	High	Medium to High	High
8	Users of PROW Ref FP 62 5 (B) looking south towards the Site's northern boundary	Medium	Medium	Medium
9	Residential receptors of the White House. Looking south/south west towards the Site's eastern boundary	High	High	High
10	Residents of Castle Barns looking south/ west towards the Site's northern and eastern boundaries	High	High	High
11	Residential receptors of properties off Westhead Road, Cookley. Looking south towards the Site's northern boundary	High	High	High
12	Residential receptors of properties off Woodlands Road/ Westhead Road, Cookley. Looking south eastwards towards the Site's northern boundary	High	High	High
13	Residents of Keepers Cottage looking south eastwards to towards the northern boundary of the Site	High	High	High

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14	Users of Lea Castle Equestrian Centre – horse paddock	High	High	High
15	Users of PROW ref FP62 5(B) adjacent to the Site’s western and eastern areas of extraction	Medium	Medium	Medium
16	Users of PROW ref FP62 6(B) / access track within Phase 1	Medium	Medium	Medium
17	Residents of Lea Castle Equestrian Bungalow. Looking west to the western area of proposed extraction and east to the eastern area of extraction	High	High	High
18	Residents of properties off Brown Westhead Park road whose rear views look east towards the Site’s western boundary	High	High	High
19	Users of PROW ref FP62 2(C) which runs north/ south within a woodland block along the western boundary to the Site	Medium	Medium	Medium
20	Users of PROW ref FP62 3(B)	Medium	Medium	Medium
21	Receptors using Brown Westhead Park Playing Fields	Medium	Medium	Medium
22	Receptors using the Wolverley Camping and caravanning club Site	High	High	High
23	Residents of property located at the southern end of Brown Westhead Road whose rear windows face east towards the Site	High	High	High
24	Staff, pupils and visitors to Heathfields Knoll School and First Steps from egress vehicle access point looking north the western area of the Site	Medium	Medium	Medium
25	Staff, pupils and visitors to Heathfields Knoll School and First Steps from ingress vehicle access point adjacent to southern boundary of the western area of the Site	High	High	High
26	Residential receptors at South Lodge looking north (east and west) along vehicle access track/ PROW ref FP625 (B) and the western area of the Site/ part eastern area	High	High	High
27	Residents of Abbot Croft - northern end/ one of the properties entrances/ exits looking north towards the site	High	High	High
28	Users of Sion Hill Road travelling and looking north towards the Site	Low	Low	Low

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29	Users of Wolverley Road running along the southern boundary of the Site, in proximity to new Site entrance	Low	Low	Low
30	Residents of Cottage looking north east and west towards the Site's eastern and western areas	High	High	High
31	Residents of Four Winds Looking over the B4189 Wolverley Road towards the Site's eastern area	High	High	High

### **Magnitude of Visual Effects**

- 6.15 Each of the potential visual receptor locations were visited to understand the nature and scope of the existing/ potential views of the site and the proposed development. A photographic record of the representative receptor views can be seen on Photographic Sheets 1 to 16.
- 6.16 Local visual receptors have a variety of assessed sensitivity to change resulting from the proposed progressive quarry development and restoration within this locality. Residential receptors along with recreational centres having the greatest sensitivity to change, i.e. high with transient users of the local PROW assessed as having a medium sensitivity and local road users being assessed as having the lowest sensitivity to change given the time duration of the view and passing by the site at higher speeds.

The magnitude of visual effect resulting from the proposed development including mineral extraction and progressive and final restoration has been evaluated in terms of its size, scale, geographical extent, duration and reversibility. These aspects have been summarised within Table 3.

### **Visual Mitigation and Enhancement Measures**

- 6.17 The following mitigation and enhancement measures have been integrated into the scheme to either reduce and/ or prevent adverse effects:
- Re-establishment of avenue planting within the site to reflect the original Lea Castle landscape
  - Re-building and management of sections of site peripheral wall which have fallen into disrepair
  - New woodland/shrubland planting for screening which also reflects the structure planting of the original Lea Castle landscape.
  - Strengthening of hedgerows within the site
  - Temporary placement of soil screening bunds/ use of agricultural straw bales within the site to screen/ mitigate potential views of extraction, restoration and the plant site – bunds to be seeded and/or planted and maintained

- Locating the plant site at a minimum of 7m below adjacent ground levels, screened by natural topography/ landform to the east
- Mineral extraction within Phase 4 is to be in an easterly direction to work behind an existing ridge to the east, with Phase 5 being extracted in a northerly direction to screen the face from potential visual receptors in the north
- Progressive restoration will ensure minimal site land disturbance at any one time period and the return of productive land in an expedient manor
- The concept restoration scheme has been designed to replicate similar local topography and landform, to maintain the productivity of agriculture and to create habitats to promote biodiversity.

#### 6.18 **Assessed overall Significance of Visual Effects**

This is achieved by combining the separate judgements about sensitivity of the visual receptor and the magnitude of the proposed development (including any mitigation measures) on visual impacts/effects. See Table 8 below.

6.19 Significance of visual effects is not absolute and can only be defined in relation to each development and its specific location. In making a judgement about the significance of visual effects it is noted that:

- Effects on people (receptors) who are particularly sensitive to change in views and visual amenity are more likely to be significant
- Effects on people at recognised and important viewpoints or from recognised scenic routes are more likely to be significant

Large-scale changes which introduce new, non-characteristic or discordant or intrusive elements into the view are more likely to be significant than small changes or changes involving features already present within the view.

#### 6.20 **Description and Assessment of the Proposed Development on Visual Receptors**

##### **Viewpoint 1**

The viewpoint is located adjacent to a public footpath (ref. 62 8(B)) on higher ground associated with proposals for residential development at Lea Castle Village (not permitted), looking west towards the Site at a distance of 670m. The view is panoramic over existing fields down to the Wolverhampton Road and up to the eastern fields, and ridge of the Site. Views then carry on towards higher ground west of Wolverley and Fairfield.

The view from the PROW is predominantly contained by and restricted within woodland, but with a few gaps in the woodland. The value of the view to a receptor using the footpath is assessed as Medium. The susceptibility of users is assessed as Medium, resulting in a Medium sensitivity.

The Proposed Development extraction phases would be screened behind the existing outer eastern facing ridge / higher ground of the site combined with temporary screening landform and tree and shrub planting. The vast majority of the outer eastern facing fields within the application will not be disturbed. The Magnitude would be Low and the overall effect Slight Adverse and Not Significant.

Post-restoration the view would be very similar to the existing baseline, resulting in a Neutral effect that is Not significant.

### **Viewpoint 2**

The viewpoint is located adjacent to the Wolverhampton Road looking south westwards towards the site at a distance of 197 m. The view is both linear along the road corridor and also more expansive into the wider area. Hedgerows along the eastern boundary of the site are observable.

The value of the view taking in its proximity to the road and surrounding land is Low and the Susceptibility of the footpath users and users of the Wolverhampton Road is also considered to be Low.

The extraction phases will not be observed from this location. They will be screened by existing landform and / or hedgerows, and / or screened along this road corridor by new planting and soil landforms. The Magnitude would be Very Low and the overall effect Minimal Adverse

Post-restoration the view would be very similar to the existing baseline, resulting in a Neutral effect that is Not Significant.

### **Viewpoint 3**

The viewpoint is located at the traffic light junction of Wolverley Road with Wolverhampton Road at ~30m from the application site boundary. Road using receptors and users of a roadside paths have views of the junction and road corridors surrounded by agricultural land.

The value of the view across the roadways and backdrop of fields is Low and the susceptibility of both road and pathway users is Low resulting in an overall Low Sensitivity.

The extraction phases will be set behind the existing agricultural ridge line and be screened by existing landform and / or temporary soil landform and planting. The Magnitude would be Very Low and the overall effect Minimal Adverse and Not Significant.

Post-restoration the view would be very similar to the existing baseline, resulting in a Neutral effect that is Not Significant.

#### **Viewpoint 4**

The viewpoint is located on Park Gate Road. The view comprising the linear corridor of the roadway running down to the Wolverley Road and Wolverhampton Road traffic light junction, adjacent fields and woodland copse and higher ground in the mid distance. The application site boundary being ~ 355m away and the extraction boundary being ~ 659m away.

The value of the view is Low, and the susceptibility of road and pathway uses is Low resulting in an overall Low sensitivity

The extraction phases would be screened by a combination of existing landform, woodland and hedgerows together with mitigation of soil landform and planting along the eastern boundary of the proposals. The magnitude would be Very Low and overall effect Minimal Adverse and Not Significant. See Photomontage and Sectional Image Sheet E.

Post restoration the view would be very similar to the baseline, resulting in a Neutral effect that is Not Significant.

#### **Viewpoint 5**

The viewpoint is from residential properties located off Stourbridge Road (A4510) looking northwest towards the site's application boundary at a distance of ~ 392m and extraction boundary at ~ 656m

The value of the undulating landscape view is Medium with residents first looking over the Stourbridge Road towards a panoramic agricultural view with the Wolverhampton Road within a valley. The susceptibility of residential receptors is High resulting in an overall High Sensitivity.

The extraction phase would be screened by a combination of existing landform and hedgerows, together with mitigation screening landform and planting along the eastern boundary of the proposals. Temporary soil stripping works would be visible. The magnitude would be Very Low and the overall effect Slight Adverse and Not Significant.

Post Restoration the view would be very similar to the baseline, resulting in a Neutral to Slight Adverse effect that is Not Significant.

#### **Viewpoint 6**

The viewpoint is from residential properties located off Heath Drive looking north westwards towards the site's eastern application boundary at a distance of ~ 343m and extraction boundary at ~ 578m

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The value of the undulating landscape view is Medium with residents first looking towards a part screening hedgerow over the Wolverhampton Road within a valley. The susceptibility of residential receptors is High resulting in an overall High Sensitivity.

The extraction phase would be screened by a combination of existing landform and hedgerows, together with mitigation screening landform and planting along the eastern boundary of the proposals. Temporary soil stripping works would be visible. The magnitude would be Very Low and the overall effect Slight Adverse and Not Significant.

Post Restoration the view would be very similar to the baseline, resulting in a Neutral effect that is Not Significant.

### **Viewpoint 7**

The viewpoint is from residential properties at North Lodge located off the Wolverhampton Road and Castle Road junction ~283m to the north of the application boundary.

The value of the view is Medium as the properties have limited rear views restricted by garden trees/ hedgerows. The susceptibility of residential receptors is High resulting in an overall High Sensitivity.

The western area phases are screened from view by a combination of landform and vegetation. The eastern area extraction phase could be observable from upper rear windows. Mitigation is proposed to work this area initially eastwards within Phase 4 and then northwards Phase 5. This will allow the quarry to develop behind the face/ undisturbed ground. The southern slopes of phase 4 will be progressively restored which will ensure views of the upper margins of this phase will be minimal in physical area and duration of disturbance. The magnitude would be Low especially as the potential views from the properties/ curtilage will be panoramic of the wider landscape and the overall effect Slight Adverse and Not Significant.

Post restoration the view would be very similar to the baseline with a variation in topography and landform designed to be similar to that of the local area, resulting in a Neutral to Slight Adverse effect that is Not Significant.

### **Viewpoint 8**

The viewpoint is from PROW Ref FP62 5(B) looking south towards the site's northern boundary at ~192m.

The value of the open views across farmland is Medium and the susceptibility of the footpath/bridleway views is Medium resulting in an overall Medium Sensitivity.

The western area extraction phases are screened from view by a combination of landform and vegetation. The eastern area extraction phases would be observable from points along the PROW looking south. To limit and mitigate potential views of the development it is proposed to extract mineral within Phase 4 in an easterly direction and subsequently Phase 5 in a northerly direction so that the working face is behind higher ground within the phases, set down below the skyline, soil stripping operations and initial extraction will be visible. A temporary ground soil storage bund will also be placed along the northern boundary of Phase 5. The disturbance will be short term and reduced by progressive restoration of initially worked higher ground within phase 4. The magnitude would be Medium and the overall effect Moderate Adverse and Not Significant.

Post restoration the view would be very similar to the baseline with a variation in topography and landform designed to be similar to that of the local area, resulting in a Neutral to Slight Adverse effect that is Not Significant.

### **Viewpoint 9**

The viewpoint is from land adjacent to allotments/field boundary with properties within Castle Barns/ The White House looking west and south towards the Site's eastern boundary at a distance of ~15m and east across the wider landscape.

The value of the panoramic view to residents which takes in the Wolverhampton Road and agricultural land being High and the susceptibility of the residents being High resulting in an overall High Sensitivity.

The eastern area extraction phase would be screened from potential views from receptors in Castle Barns/ The White House by existing topography and landform, together with hedgerows combined with mitigation/ soil screening bunds and tree, shrub and hedgerow planting and strengthening. The extraction phases would also operate behind the existing ridge line. The magnitude would be Very Low to Low, principally associated with the creation of mitigation screening works and the overall effect Slight to Moderate Adverse and Not Significant. See Photomontage and Sectional Image A.

Where there are external views from receptors in Castle Barns/ The White House they are also generally panoramic and not directed towards the site boundary.

Post restoration the views would be very similar to the baseline resulting in a Neutral effect that is Not Significant. Photosheet 5 also illustrates the eastern boundary of Castle Barns which are generally contained by structures/ vegetation with the majority of views contained within the converted barn area itself.

### **Viewpoint 10**

The viewpoint is from the access road to Castle Barns looking south towards the eastern area at distances of ~ 70m.

The value of the view to road users is Medium and the susceptibility of users is Low to Medium resulting in an overall Medium Sensitivity.

The eastern area extraction phases would be observed from points along this vehicle track. To limit and mitigate potential views of the development it is proposed to place a temporary soil screening bund along the northern boundary of Phase 5 which will be seeded and maintained combined with extracting mineral within Phase 4 in an easterly direction and Phase 5 a northerly direction, so that the working face is generally set behind higher ground. A new hedgerow is also to be planted along the northern boundary of Phase 5 during the initial works phase which will allow for 7 years growth before Phase 5 is worked. Set down below the skyline soil stripping operations and initial extraction will be visible. This disturbance will be short term and reduce by progressive restoration of initially worked higher ground within Phase 4. The magnitude would be Low to Medium and the overall effect Slight to Moderate Adverse and Not Significant.

Post restoration the view would be very similar to the baseline with a variation in topography and landform designed to be similar to that of the local area, resulting in a Neutral to Slight Adverse effect that is Not Significant.

#### **Viewpoint 11**

The viewpoint is from land bordering the rear gardens of properties off Westhead Road, Cookley at a distance of ~ 383m from the sites northern area.

The value of the view to residents is High and the Susceptibility of residents is High resulting in an overall High Sensitivity.

All aspects of the proposed development will be screened from view by existing topography/ landform and further contained by existing vegetation. The magnitude will be Neutral and the overall effect Neutral and Not Significant.

Post restoration there will be no change in baseline views, resulting in a Neutral effect that is Not Significant.

#### **Viewpoint 12**

The viewpoint is from land bordering rear gardens of properties off Woodlands Road/ Westhead Road, Cookley at a distance of ~ 372m from the sites northern area.

The value of the view to residents is High and the Susceptibility of residents is High resulting in an overall High Sensitivity.

All aspects of the western and plant site areas will be screened by existing landform. It may, however, be possible to see higher ground within the eastern area of Phase 4 and 5 from the upper rear windows of these properties. The magnitude will be

Neutral to Very Low with the overall effect Neutral to Slight Adverse and Not Significant.

Post restoration there will be no noticeable change in baseline views, resulting in a Neutral effect that is Not Significant.

### **Viewpoint 13**

The viewpoint is from Keepers Cottage looking south eastwards towards the Eastern Area at a distance of ~127m.

The value of the view to residents in Moderate to High and the susceptibility of residents is High resulting in an overall High Sensitivity.

All extraction phases and the proposed plant site will be screened from view by a combination of existing landform and vegetation structure, and temporary soil screening bunds which will be both seeded, planted and maintained and managed. The magnitude will be Very Low and the overall effect Slight Adverse and Not Significant.

Post restoration the view would be similar to the baseline resulting in Neutral to Slight Beneficial effect, resulting from enhanced planting, that is Not Significant.

### **Viewpoint 14**

The viewpoint is from land boarding the north eastern are of the Lea Castle Equestrian Centre looking towards the eastern area of the site at a distance of ~ 86m.

The value of the view to users of the Equestrian Centre is a combination of Low to Medium to High as existing stables/ gable ends and planting restrict views from differing receptor viewpoints at the centre. The susceptibility of users of the Equestrian Centre is High, resulting in an overall Moderate to High sensitivity.

From the centre itself and this paddock viewpoint location, all extraction phases and the proposed plant site will be screened from view by a combination of temporary soil screening bunds which will be both seeded and planted and maintained and managed. The magnitude will be Low and the overall effect Slight Adverse and Not Significant.

Post restoration the view would be very similar to the baseline but with enhanced avenue tree planting, resulting in a Low magnitude and resulting in a Moderate Beneficial effect that is Not Significant.

### **Viewpoint 15**

The viewpoint is located on a public footpath/ bridleway Reference FP62 5 (B) looking west over the proposed western area at a distance of ~ 25m from the Phase 2 extraction area.

The value of the view to receptors is medium as this is a typical view obtained by users of the PROW and the site is one component of the overall view. The susceptibility of users (transient horse riders and walkers) being Medium resulting in an overall Medium Sensitivity.

Receptors using PROW FP 625(B) would view mineral extraction operations in both the eastern and western areas and the plant site if no mitigation measures were in place. It is however, proposed to utilise temporary bunds in combination with straw bales to contain and screen potential views of the development. Advanced tree planting combined with grass seeding of bunds and tree and shrub planting to bunds will also aid in screening and integrating the mitigation measures.

The magnitude will be Low to Medium and the overall effect Slight to Moderate Adverse and Not Significant.

Post restoration the nature and scale of the view would be similar to the baseline. Topography and landform will reflect that of locally observed morphology. The parkland tree will be retained, and the new avenue trees planted together with wildlife enhanced buffer strip to agricultural field/ acid rich meadow grassland establishment and the reinstatement of agricultural land. The visual magnitude of which is assessed as Medium Beneficial resulting in a Moderate Beneficial effect.

### **Viewpoint 16**

The viewpoint is from PROW FP 62 4(B) midway along the access track.

The value of the view is Medium with both walkers, horse riders, cyclists and vehicle users having the opportunity to view agricultural land, barns, part derelict house, and agricultural compound eastwards and a large open field and a wider panoramic view to the west to woodland and higher ground in the distance. A number of avenue trees have been lost over the years from adjacent to the track. The susceptibility of the track users is Medium resulting in an overall Medium Sensitivity.

To the east, extraction phases would be screened by a seeded and vegetated bund with the plant site being located below ground level. To the west approximately a third of the existing views along the track would be temporarily changed at any one time during Phases 1, 2 and 3. The change involving a combination of temporary grass seeded soil screening bunds and agricultural hay bales containing and screening the individual operational phases, working and restoration and placement of bunds/bales being progressive. The magnitude would be Medium and the overall effect Moderate and Not Significant.

Post restoration there would be a similar adjacent landform to the existing, dipping westwards within an agricultural parkland setting to wildlife enhanced southern, western and northern boundaries. New tree avenue planting will line the access track/ PROW. To the east, restored land will be undulating and integrate into the agricultural parkland setting. This will result in a Medium magnitude with the overall effect Moderate Beneficial with the re-establishment of Lea Castle Parkland features.

### **Viewpoint 17**

The viewpoint is from private land adjacent to the residential bungalow at Lea Castle Equestrian Centre looking towards the western area of the site at a distance of 75m from the proposed extraction area behind a temporary intervening screening bund (grass seeded and maintained). The receptors are the residents of the bungalow. See Photographs 17a and b.

The value of the panoramic large-scale view to residents is considered High. The proposed western area being the low-level visual component of this view which is also composed of site peripheral woodland in the mid ground and higher agricultural land west of Fairfield/ Wolverley. The susceptibility of residential receptors is High resulting in an overall High Sensitivity

Without any mitigation measures in place residents of the Bungalow would have the potential to view quarry operations within both the western and eastern areas of the proposed development – see Photomontage and Sectional Image B. To prevent views of the operations and to mitigate/reduce potential effects it is proposed to initially create a screening bund in an arc around the north eastern boundary of Phase 1 and to restrict mineral extraction to ~75m away from the property. This bund to be grass seeded and maintained and to be in place for approximately 9 months. At this point a new temporary soil bund will be created on the northern boundary of Phase 2, grass seeded and. Where upon the initial bund screening Phase 1 will be removed. This bund will be in place for ~12months to allow for mineral extraction and restoration within Phase 2. As mineral extraction and restoration progresses southwards to Phase 3 a third temporary screening bund will be constructed to prevent views of the operations from receptors at the Bungalow, at a distance of ~230m.

Progressive restoration will also be taking place behind the temporary bunds to help ensure that when they are removed views of restored agricultural parkland, and the wider peripheral woodland block and higher ground in the distance will return.

The magnitude during the operational phase will be Medium and the overall effect Moderate and Not Significant

Post restoration the view would be very similar to current baseline, with a Low Beneficial magnitude from the re-establishment of parkland trees resulting in a Moderate Beneficial effect that is Not Significant.

### **Viewpoint 18**

The viewpoint is from residential properties off Brown Westhead Park Road (rear garden and upper windows) towards the Site's western boundary.

The value of the view is Medium (generally into a woodland setting with gaps to the field (Site) beyond). The susceptibility of the residents is High resulting in an overall High sensitivity.

The western area extraction phases will be between ~65 and 150m from the boundary of the properties, set behind a temporary grass seeded and maintained soil screening bund. The magnitude would be Very Low to Low and the effect Slight to Moderate Adverse that is Not Significant.

Post restoration, the view would be very similar to the current baseline, resulting in a Neutral to Very Low Beneficial magnitude and a Neutral to Slight Beneficial effect which is Not Significant.

### **Viewpoint 19**

The viewpoint is from PROW FP62 3(C) within woodland fringe ~60m to the west of the site.

The value of the view is Low and the susceptibility of footpath users is Medium resulting in an overall Medium Sensitivity as visually the view is contained/restricted by existing shrub and tree vegetation.

The extraction phases/ restoration would be set back between ~100 to 150m from the pathway, behind a soil storage/ screening bund. The bund will be seeded and maintained. The magnitude would be Very Low and the effect Slight Adverse.

Post restoration the view would be very similar to the current baseline, resulting in a Neutral effect that is Not Significant.

### **Viewpoint 20**

The viewpoint is located on public footpath FP62 3(B) which is part of a route which connects access off Wolverley Road to Lea Lane. The view is through an existing woodland with both tree and shrub canopy levels.

The value of the view contained within the woodland structure is Low and the susceptibility of footpath users is Medium resulting in an overall Medium Sensitivity.

The extraction phase/ restoration will be set back and screened by the existing woodland with potential heavily restricted views. The magnitude would be Very Low and the overall effect Very Slight adverse.

Post restoration the view will be very similar to the baseline, resulting in a Neutral effect this Not Significant.

### **Viewpoint 21**

The viewpoint is located on public playing field at Brownwest Head Park. The views available from this location are of the grassed playing fields generally contained by peripheral hedgerows tree planting/ woodland and Wolverley Camp old buildings to the north.

The value of the views across the playing field are Medium and the susceptibility of the users is Medium resulting in an overall Medium Sensitivity.

The extraction phase/ restoration will be set back and screened by the existing woodland to the east of the playing fields together with residential properties, roadside planting. There will also be site internal soil bunds. The magnitude would be Neutral and overall effect Neutral that would Not be Significant. See Photomontage and Sectional Image C.

Post restoration the view will be the same as the baseline resulting in a Neutral effect that is Not Significant.

### **Viewpoint 22**

The viewpoint is located within the Wolverley Camping and Caravanning Club Site. Views from the club are part screened by structures, caravans and a hedgerow adjacent to Brownwest Head Playing Fields. Looking east towards the site views are contained by roadside planting and woodland

The value of the view is High and the susceptibility of the visitors to the club is High resulting in an overall High Sensitivity

The proposed development will be screened from view by a combination of existing hedgerows, buildings/ structures, woodland, higher ground and site internal soil storage bunds. The magnitude would be Neutral and the overall effect Neutral that is Not Significant. See Photomontage and Sectional Image C.

Post restoration the view will be the same as the current baseline, resulting in a Neutral effect that is Not Significant.

### **Viewpoint 23**

The viewpoint is located around the Wolverley Road/ Brown Westhead Park Road junction specifically residents of properties bordering these roads. The view is comprised of roadways, hedges and woodland together with other properties. The view being generally contained by these elements.

The value of the view is Medium, and the susceptibility of the residential receptors is High resulting in an overall High Sensitivity.

The proposed development will be screened from potential views looking eastwards by a combination of existing built structures, hedgerows, scrubland, woodland, higher elevated ground and site internal screening bunds. The magnitude would be Neutral and the overall effect Neutral that would Not be Significant.

Post restoration the view will be the same as the baseline, resulting in a Neutral effect that is Not Significant.

### **Viewpoint 24**

The viewpoint is located around the entrance and exit to Heathfield Knoll School and First Steps off Wolverley Road. The views are generally from road users and staff, pupils and visitors to the school which is set back from the road and screened by existing vegetation. The general view is concentrated along the road corridor with walls and vegetation either side.

The value of the view is Low and susceptibility of road users/ pedestrians adjacent to Wolverley Road is Low resulting in an overall Low Sensitivity

The proposed development extraction phase 3, 2 and 1 are located to the north of this viewpoint at distance of ~50m to the southern edge of Phase 3. The extraction phases will be set back from the Wolverley Road behind a wall, existing tree/shrub block and a temporary soil screening bund. The magnitude would be Very Low and the overall effect Minimal Adverse that would Not be Significant.

Post restoration the view will be the same as the baseline, resulting in a Neutral effect that is Not Significant.

### **Viewpoint 25**

The viewpoint is located within the grounds of Heathfield Knoll School and First Steps. Potential visual receptors include staff, pupils, parents and visitors to the school. The views from within this area are generally contained by both vegetation and built structures.

The value of the view is High and the susceptibility of receptors is also judged as High, resulting in an overall High Sensitivity.

The Proposed Development extraction phases 3, 2 and 1 are located to the north of this viewpoint at a distance of 92m to the southern edge of Phase 3. The extraction phases will be set back from Wolverley Road, behind a wall, existing trees/ shrubs and a temporary 3m high soil screening bund. The bund will be seeded and managed. The magnitude of the proposed development on this view will be Neutral and the overall effect Neutral that would Not be Significant.

Post restoration the view would be similar to the current situation, resulting in a Neutral effect.

### **Viewpoint 26**

The viewpoint is located at the southern end of FP62 5(B) adjacent to the South Lodges. One of the two properties is currently lived in. The other is part derelict. Residential receptors have a vista view looking into the site contained by walls and vegetation and part screened views through built structure and vegetation within the Site.

The value of the view is Medium and the susceptibility of users is High resulting in an overall High sensitivity

The proposed development phase 3, 2 and 1 to the west and the plant site area to the east will be partly visible if no mitigation measures were in place. It is proposed, however, to install temporary soil screening bunds and straw bales to restrict/ prevent views of the development but to maintain the main vista view elements. The magnitude would be Low and the overall effect Moderate Adverse that would Not be Significant.

Post restoration the view would be similar to the baseline, resulting in a Very Low Beneficial magnitude and a Slight Beneficial effect that is Not Significant.

### **Viewpoint 27**

The viewpoint is located adjacent to one of the entrances (blocked) to Abbot Croft, residential visual receptors. The house itself being set back from the Wolverley Road and set in a woodland/ shrubland landscape. The view is of the Wolverley Road, the wall to the north of the road, South Lodge/ Barn/ Storage Area with the site beyond.

The value of the view is Low, and the susceptibility of Abbot Croft residents to change from this view is medium resulting in an overall medium sensitivity.

The viewpoint looking north looks towards the plant site and Phase 4 of the extraction area. These elements will be screened by the existing built and vegetation structure and behind grassed and maintained soil bunds with the plant site set down a minimum of 7m below existing ground levels. The magnitude would be Low and the overall effect Slight Adverse that would Not be Significant.

Post restoration the view will be very similar to the baseline resulting in a Neutral effect that is Not Significant.

### **Viewpoint 28**

The viewpoint is located looking north towards the site from Sion Hill Road. The view is contained by existing walls, railings, vegetation and built structures and is obtained from roadways and roadside path

The value of the view is Low and the Susceptibility of road users/ path users is Low resulting in an overall Low sensitivity.

The extraction phases and other quarry development activities will be generally screened from view by existing built and vegetative elements. The magnitude would be Very Low and overall effect Minimal that would Not be Significant.

Post restoration the view will be very similar to the baseline, resulting in a Neutral effect that is Not Significant.

### **Viewpoint 29**

The viewpoint is located adjacent to the proposed vehicle site access into the site off Wolverley Road. Receptors being road users and roadside pedestrians. Existing views are of the roadside corridor bounded by wall and hedge (The value of the view is Low and the susceptibility of potential road using receptors is Low.)

A section of wall ~48 linear metres will be dismantled, and bricks stored. The quarry vehicular entrance will then be constructed from Wolverley Road into the site. The road will pass through a section of field and then turn west. Soil storage bunds will screen vehicle movement from this point and also help screen the quarry plant site which is to be set ~48m below existing ground levels. Bunds to be seeded and maintained.

The magnitude would be Medium and the overall effect Slight Adverse that would Not be Significant.

Post restoration the work will be re-constructed using the original bricks or bricks of a similar size and colour. The view will return to that of the current situation, resulting in a neutral effect that is Not Significant.

### **Viewpoint 30**

The viewpoint is located at Broom Cottage (which is under the control of the applicant and not occupied at the time of writing this report). Views from the bungalow and its curtilage are generally restricted and contained by existing walls,

hedges, trees and local landform. The value of the view is Medium, and the susceptibility of potential residential receptors is High resulting in a High Sensitivity.

We have assessed it as an occupied residence, as a worst-case scenario.

From the bungalow and its garden there could be views towards the plant site, new vehicle access and extraction phases 4 and 5 and potentially towards the western area. However, existing walls, vegetation and immediate local landform features screen the majority of potential views of the development. Proposed grass seeded and maintained soil bunds and the mitigation of placing the plant at a low level will further limit the potential for views. It is also proposed to allow the hedges around the bungalow/ garden periphery to grow a further 2m in height, which will screen views of the potential site activities.

The magnitude would be Low and the overall effect Moderate Adverse that would Not be Significant.

Post restoration the view will be very similar to the baseline, resulting in a Neutral effect that is Not Significant.

### **Viewpoint 31**

The viewpoint is located on the Wolverley Road adjacent to the Four Winds residential property (the receptor). Views include the road corridor, a wall adjacent to the roadway looking north and evergreen hedgerow trees and shrubs. This viewpoint assessed the residential receptors dormer window at 1<sup>st</sup> floor which is visible from Four Winds looking north. The properties orientation and main front windows appearing to face south eastwards away from the site.

The value of the view looking north is Low to Medium and the susceptibility of residential receptors of all views is High, but Low to Medium to the north. We have, however, assessed a maximum susceptibility of High which results in an overall High sensitivity.

It is possible that a view northward could observe parts of extraction phase 4 and 5. The plant site and western area being screened by higher ground, walls and trees surrounding Broom Cottage. Mitigation measures of tree and shrub planting approximately 5 years in advance of extraction of Phase 4, combined with grassed soil screening bund will help restrict potential views of the development. The magnitude would be Low and the overall effect Moderate Adverse that would Not be Significant.

Post restoration the view will be similar to the existing baseline and also include a part view of the reinstated Broom Culvert resulting in Low Beneficial magnitude and therefore a Moderate Beneficial effect, which is Not Significant.

6.21 Please see below a summary of the visual impact assessment on representative receptors.

**Table 8: Assessed Overall Significance of Visual Effects**

Receptor No.	Description	Sensitivity	Magnitude	Maximum Overall Effect
1	Users of Footpath 628(B)	Medium	Operational: Low	Slight Adverse
			Post Restoration: Neutral	Neutral
2	Users of A449 Wolverhampton Road	Low	Operational: Very Low	Minimal Adverse
			Post Restoration: Neutral	Neutral
3	Users of Wolverhampton Park Gate and Wolverley Road's Junction	Low	Operational: Low	Minimal Adverse
			Post Restoration: Neutral	Neutral
4	Users of Park Gate Road	Low	Operational: Very Low	Minimal Adverse
			Post Restoration: Neutral	Neutral
5	Residents off Stourbridge Road	High	Operational: Very Low	Slight Adverse
			Post Restoration: Neutral	Neutral
6	Residents off Heath Drive	High	Operational: Very Low	Slight Adverse
			Post Restoration: Neutral	Neutral
7	Residents of North Lodge	High	Operational: Very Low	Slight Adverse
			Post Restoration: Very Low	Neutral to Slight Adverse
8	Users of Bridleway 62 5(B)	Medium	Operational: Medium	Moderate Adverse
			Post Restoration: Low	Neutral to Slight Adverse
9	Residents of White House / Castle Barns	High	Operational: Very Low / Low	Slight to Moderate Adverse
			Post Restoration: Neutral	Neutral
10	Users of Castle Barns Access Track	Medium	Operational: Low	Slight to Moderate Adverse
			Post Restoration: Low	Neutral to Slight Adverse
11	Residents off Westhead Road, Cookley	High	Operational: Neutral	Neutral
			Post Restoration: Neutral	Neutral
12	Residents off Woodland Road / Westhead Road, Cookley	High	Operational: Neutral to Very Low	Neutral to Slight Adverse
			Post Restoration: Neutral	Neutral
13	Residents of Keepers Cottage	High	Operational: Very Low	Slight Adverse
			Post Restoration: Neutral to Very Low	Neutral to Slight Beneficial
14	Users of Lea Castle Equestrian Centre	High	Operational: Very Low to Low	Slight Adverse
			Post Restoration: Low	Moderate Beneficial

## Lea Castle LVIA

15	Users of PROW FP62 5(B)	High	Operational: Low to Medium	Slight to Moderate Adverse
			Post Restoration: Medium	Moderate Beneficial
16	Users of PROW FP62 4(B)	Medium	Operational: Medium	Moderate Adverse
			Post Restoration: Medium Beneficial	Moderate Beneficial
17	Residents of the Bungalow	High	Operational: Medium	Moderate Adverse
			Post Restoration: Low Beneficial	Moderate Beneficial
18	Residents off Brown Westhead Park Road	High	Operational: Very Low	Slight to Moderate Adverse
			Post Restoration: Neutral	Slight Beneficial
19	Users of PROW FP 62 2(C)	Medium	Operational: Very Low	Slight Adverse
			Post Restoration: Neutral	Neutral
20	Users of PROW FP 62 3(B)	Medium	Operational: Very Low	Very Slight Adverse
			Post Restoration: Neutral	Neutral
21	Users of Brown Westhead Park	Medium	Operational: Neutral	Neutral
			Post Restoration: Neutral	Neutral
22	Users of Wolverley Camping and Caravanning Club	High	Operational: Neutral	Neutral
			Post Restoration: Neutral	Neutral
23	Residents located around Wolverley Road / Brown Westhead Road Junction	High	Operational: Neutral	Neutral
			Post Restoration: Neutral	Neutral
24	Users of vehicular entrance / exit to Heathfield Knoll School & First School	Low	Operational: Very Low	Minimal Adverse
			Post Restoration: Neutral	Neutral
25	Staff, Pupils, Visitors within the grounds of Heathfield Knoll School & First School	High	Operational: Neutral	Neutral
			Post Restoration: Neutral	Neutral
26	Residents of South Lodge	High	Operational: Medium	Moderate Adverse
			Post Restoration: Low Beneficial	Slight Beneficial
27	Residents of Abbot Croft	Medium	Operational: Low	Slight Adverse
			Post Restoration: Neutral	Neutral
28	Users of Sion Hill Road	Low	Operational: Very Low	Minimal Adverse
			Post Restoration: Neutral	Neutral
29	Users of Wolverley Road	Low	Operational: Medium	Slight Adverse
			Post Restoration: Neutral	Neutral
30		High	Operational: Low	Moderate Adverse

## Lea Castle LVIA

	Residents of Broom Cottage		Post Restoration: Neutral	Neutral
31	Residents of Four Winds	High	Operational: Low	Moderate Adverse
			Post Restoration: Very Low	Slight Beneficial

### Summary Visual Conclusion

The production of ZTVI information combined with desktop and site survey works to identify potential visual receptors of both the existing Site and its current activities, together with the Proposed Development has taken place. The current Site comprises two types of visual landscape. Firstly, the Western Area and western and central areas of the Eastern Area which is generally comprised of enclosed land visually contained by a combination of landform, topography and vegetation structure. There are a limited numbers of existing and potential visual receptors with views of this area. Secondly the Outer Eastern Area which due to a combination of an easterly sloping landform and reducing topography combined with a limited amount of vegetation make this area a part of a wider visual envelope with potentially a greater number of visual receptors.

The ZTVI's provided guidance from which detailed site survey works took place to identify locations of representative visual receptors including residents, users of PROW / green spaces and the local road network. A photographic record of the identified viewpoints was taken and the sensitivity to visual change from the type of proposed development made. The magnitude of the actual proposed development was then assessed, and the level of Significance effect determined.

It is considered that without mitigation measures in place there would be the potential for Significant Adverse Effects. It is proposed however to integrate into the scheme advanced and progressive visual mitigation measures including tree, shrub and hedge planting, placing the plant site approximately 7m below adjacent ground levels and temporary seeded/ planted soil screening bunds and agricultural straw bales and progressive restoration. With mitigation measures in place it has been assessed that NO visual receptors will receive a Significant Adverse Effect during the proposed development period. It is noted that two PROW's will require temporary diversion which will result in a temporary change of view to that which is currently experienced. Users of these PROW FP62 6(B) and 62 4(B) are assessed to receive Moderate Adverse effects during the diversion period where alternative routes will be provided. At Post restoration it is assessed that landform and land uses will reflect, re-create and enhance the visual amenity of the site to the benefit of local receptors.

## 7.0 CONCLUSION

- 7.1 A landscape and Visual Impact Assessment have been carried out in respect of the Proposed Development. The assessment has been carried out in accordance with the Landscape Institute and Institute of Environmental Management Guidelines for Landscape and Visual Impact Assessment (GLVA3).
- 7.2 Desk top and site survey works have identified the current baseline situation including landscape character resources, elements and features which comprise the local setting, along with visual receptors who currently have either existing or potential views of the Site and the Proposed Development.
- 7.3 Research has also identified Landscape Orientated Designations of value. The Site is NOT located within a Nationally Designated Landscape. No listed buildings are directly affected by the Site. 13 trees with Tree Preservation Orders are located within the site.
- 7.4 The Proposed Development is for the progressive extraction of sand and gravel and solid sand with sequential restoration. Mitigation and enhancement landscape and visual measures, integrated within the scheme include, advanced avenue tree, shrub and hedgerow planting, seeded temporary soil screening bunds, lowering the plant site ~7m below adjacent ground levels, the creation of a high quality agriculturally managed parkland with pocket parks and additional ~2.3km of new footpath, bridleway and cycleways, offering potential for enhanced wellbeing recreation and leisure. All land within the application boundary will also be placed in long-term Aftercare and Management Plan to guarantee the restoration and use of all restoration elements and amenity benefits.
- 7.5 The Site is located within the Worcestershire County Council Landscape Character Assessment Kinver Sandlands (LCA), Sandland Estatelands (LCT) and Churchill Sandland Estatelands (LDU). Typical element and features including an area of soft sandstone with an intermediate, undulating topography and impoverished sandy soils. The land use is mainly arable, and the tree cover comprises an ordered pattern of large plantations, together with parkland and belts of trees. The Site landscape formed a part of a now degraded agricultural parkland with the loss of trees, woodland and hedgerows and visual structure.
- 7.6 There would be No Significant impacts resulting from the Operational Phase upon existing landscape receptors. There would be a Very Slight Adverse effect on vegetative elements, a Slight Adverse effect on soils/agricultural landuse and a Moderate Adverse effect on landform and topography. Mitigation and enhancement measures will be implemented both in advance of mineral extraction and during progressive phased working and restoration. These include increased public access, minimising the area of operational / disturbed ground at any one time period landscape planting and habitat creation.

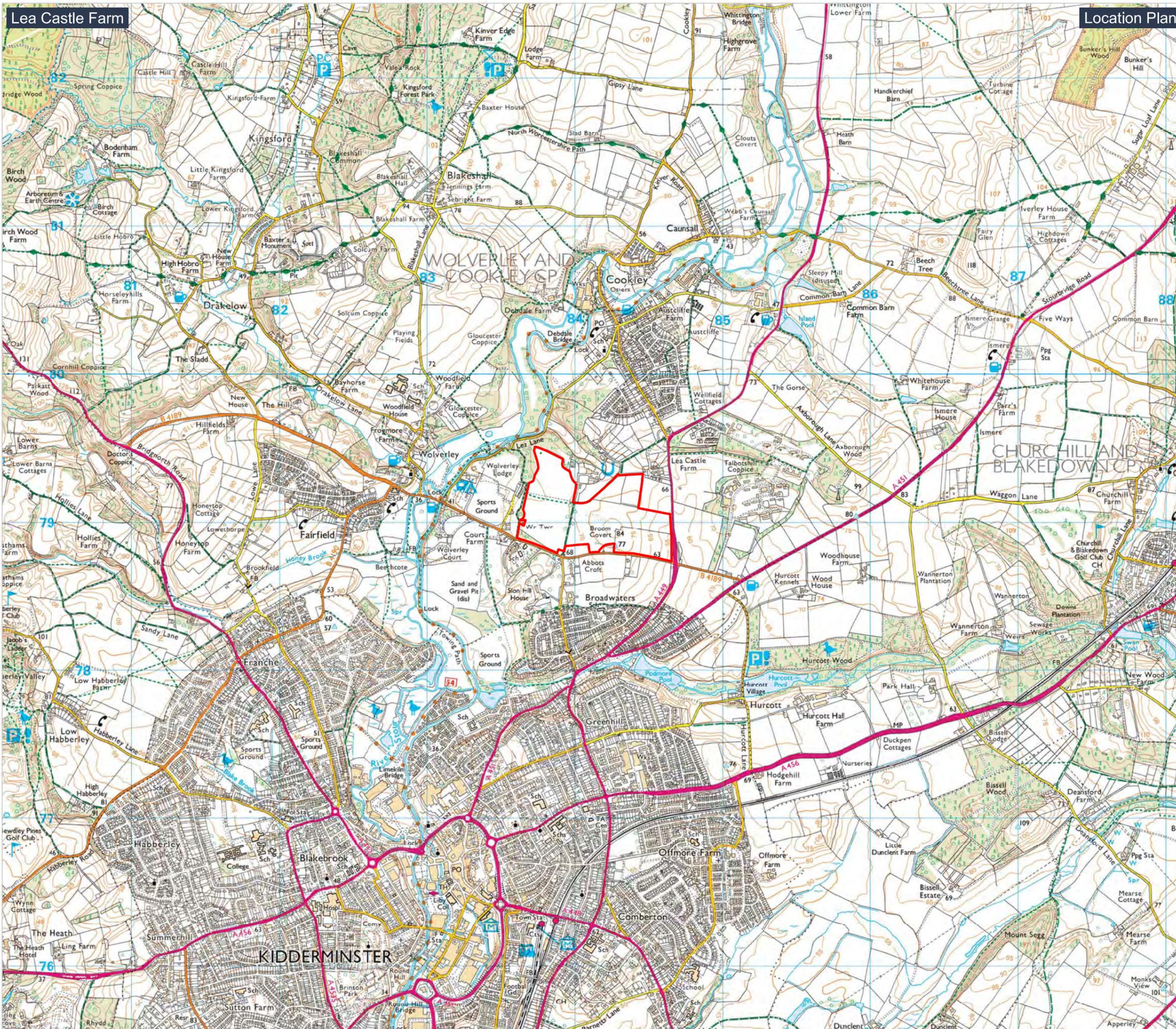
- 7.7 At Post Restoration there will be a strengthening of appropriate landscape elements and features which respects and replicates the sites historic past whilst providing new and increased diversity and net gain of individual landscape and biodiversity elements along with the promotion and integration of amenity and wellbeing opportunities. This includes pocket parks based around a green infrastructure strategy. New habitats will also be created including 8.1 Ha of acidic grassland, woodland and blocks and parkland trees. This would result in an overall Notable Beneficial effect which is not Significant.
- 7.8 The production of ZTVI information combined with desktop and site survey works to identify potential visual receptors of both the existing site and its current activities, together with the Proposed Development has taken place. The current Site comprises two types of visual landscape. Firstly, the Western Area and western and central areas of the Eastern Area which is generally on enclosed land visually contained by a combination of landform, topography and vegetation structure. There are a limited number of existing and potential visual receptors with views of this area. The principle receptors being residents at Broom Cottage, Keepers Cottage, The Bungalow/ Lea Castle Equestrian Centre, South Lodge, Castle Barns and users of the site internal PROW's. Secondly the Eastern Area which due to a combination of an easterly sloping landform and reducing topography combined with a limited amount of vegetation make this area a part of a wider visual envelope with potentially a greater number of visual receptors including residents of Castle Barns, Four Winds and properties off the Stourbridge Road as well as users of the local road and PROW networks located to the east of the Site.
- 7.9 Current Site activities which include agricultural production and the use of fields as horse paddocks is not resulting in significant visual disturbance to potential receptors. Under a 14 day a year permitted planning use, areas of the Site are used for motorbike scrambling activities. These activities although limited in duration do result in both adverse visual and amenity landscape effects. These effects are judged to be Slight Adverse throughout the year but if concentrated over a short period around a specific receptor the effect can be Significant Adverse.
- 7.10 The main visual elements and features which will be introduced as part of the proposed developments are a new vehicle access point off Wolverley Road, the plant site (plant and stocks), soil stripping, mineral extraction and restoration works.
- 7.11 Visual mitigation and enhancement measures integrated into the development proposals include, only extracting mineral from the identified more enclosed and contained visual landscape in the eastern and central/ eastern areas of the site and not the eastern section of the application boundary, placing the plant site a minimum of ~7m below adjacent ground level, use of temporary soil storage/screening bund (seeded and maintained) to block potential views of quarrying activities along with agricultural straw bales, distance standoffs from residential property including the Bungalow and Castle Barns, tree and shrub planting to help both screen and integrate proposals. It is also proposed to limit the actual area of disturbed land /quarrying activities (access, extraction, plant site and

restoration) through phased progressive extraction and restoration. Advanced and progressive planting of new avenue trees, parkland groups of trees, woodland and hedgerows will enhance the visual landscape and its setting and respect the lost/degraded agricultural parkland.

- 7.12 Based upon the proposals described and illustrated on Planning Application Drawing Nos. 4 to 16, it has been assessed that NO visual receptors will receive a Significant Adverse Effect during either the proposed development period or from the restored site and its agricultural and parkland activities. It is noted that two PROW's will require temporary diversion which will result in a temporary change of view to that which is currently experienced. Users of these PROW FP62 6(B) and 62 4(B) are assessed to receive Moderate Adverse effects during the diversion period where alternative routes will be provided.
- 7.13 Consideration has been given to the potential for both landscape and visual cumulative effects, including the outline permitted residential development at the disused Lea Castle Hospital site. It is assessed that the cumulative effect upon visual amenity, including individual receptors and landscape character during both the operational and restoration periods is assessed as Neutral and Not Significant.
- 7.14 In conclusion the landscape and visual effects resulting from the Proposed Development would be temporary, progressive and localised and Not Significant. Progressive restoration to the post restoration scheme provides opportunities for both enhanced landscape, visual and amenity and wellbeing which will result in Beneficial effects. It is assessed that there will be no adverse cumulative landscape or visual Significant effects.

**APPENDIX A**

<b>Appendix A</b>	<b>Figures 1 – 10, Photo Viewpoints 1 – 16 &amp; Photomontage/Sectional Images</b>
<b>LVIA Figure 1</b>	Location Plan (KD.LCF.001)
<b>LVIA Figure 2</b>	Current Situation (KD.LCF.002)
<b>LVIA Figure 3</b>	Landscape and Environmental Designations (KD.LCF.016)
<b>LVIA Figure 4</b>	Landscape Character (KD.LCF.020)
<b>LVIA Figure 5</b>	Site Landscape Character Elements and Features
<b>LVIA Figure 6</b>	Current Zone of Theoretical Visual Influence (KD.LCF.017)
<b>LVIA Figure 7</b>	Potential Zone of Theoretical Visual Influence (during Phase 3 of the proposed development) (KD.LCF.018)
<b>LVIA Figure 8</b>	Potential Zone of Theoretical Visual Influence (during Phase 5 of the proposed development) (KD.LCF.019)
<b>LVIA Figure 9</b>	Potential Zone of Theoretical Visual Influence (at post restoration) (KD.LCF.027)
<b>LVIA Figure 10</b>	Representative Visual Receptor Location Points (KD.LCF.015)
<b>Photographic Sheets 1 to 16</b>	
<b>Photomontage &amp; Sectional Images A to E</b>	



**LEGEND**

 Application Boundary

LVIA Figure 1



PROJECT:  
**Lea Castle Farm**

TITLE:  
**Location Plan**

REF NO:  
**KD.LCF.001**

DATE: **September 2019**      SCALE: **1:25,000 @ A3**

STATUS:  
**FINAL**



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**LEGEND**

- Application Boundary
- Existing Woodland, Trees & Scrub
- Existing Hedgerows/Hedgerow Trees
- Existing Public Rights of Way
- Existing Buildings/Structures/Roads and Tracks
- Existing Contours Meters above Ordnance Datum
- Existing Water bodies
- Agricultural land within the planning application boundary
- Surrounding land

LVIA Figure 2



PROJECT:  
Lea Castle Farm

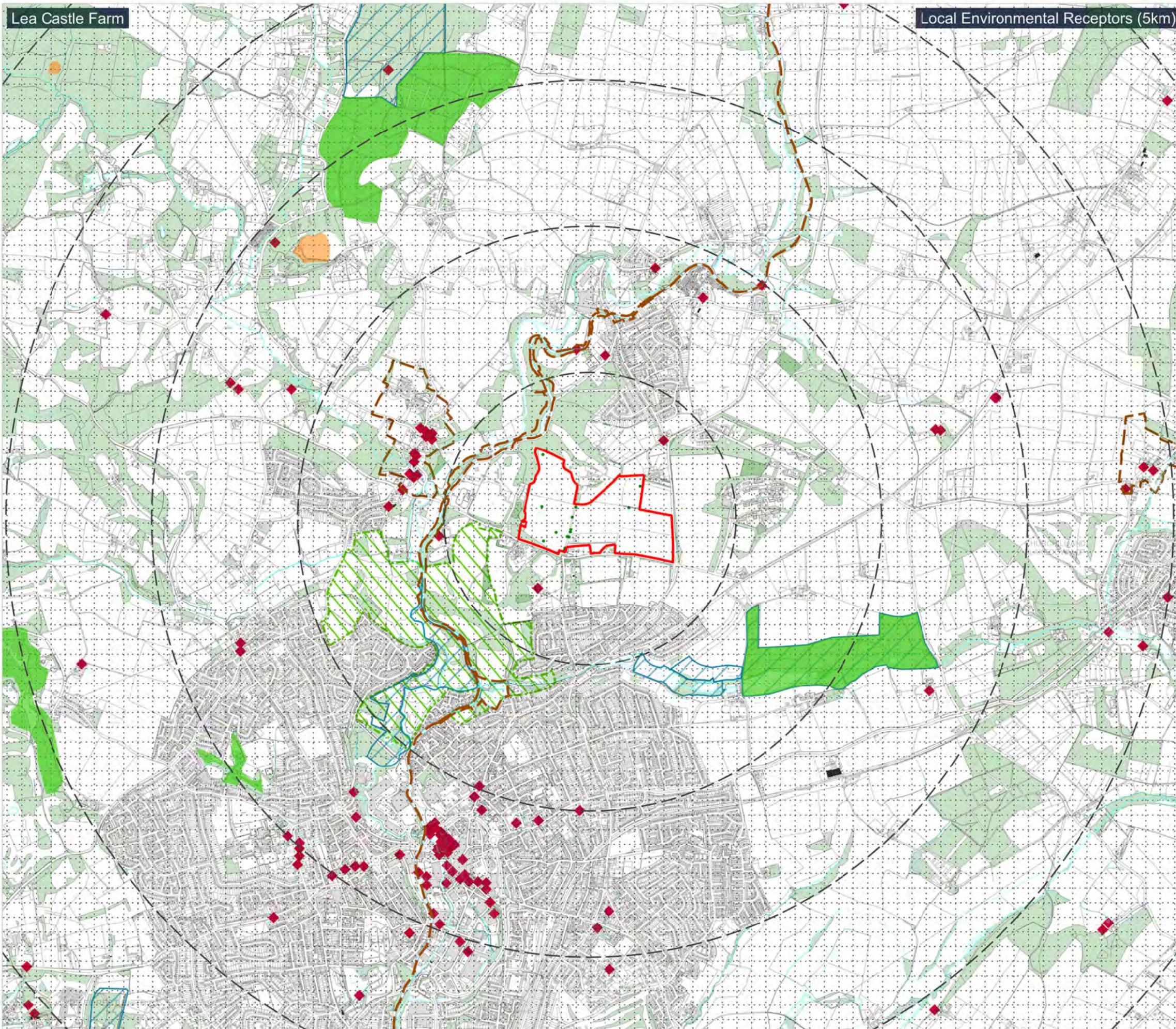
TITLE:  
Current Situation

REF NO:  
KD.LCF.002

DATE: September 2019      SCALE: 1:5,000 @ A3

STATUS:  
FINAL





**LEGEND**

-  Application Boundary
-  1km Distance Banding (from centre of Site)
-  Site of Special Scientific Interest (SSSI)
-  Listed Buildings
-  Local Nature Reserve (LNR)
-  Scheduled Ancient Monument (SAM)
-  Conservation Area
-  Proposed River Stour Country Park
-  Tree Preservation Orders within the Site

LVIA Figure 3



PROJECT:  
**Lea Castle Farm**

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TITLE:  
**Local Landscape Orientated Designations (5km)**

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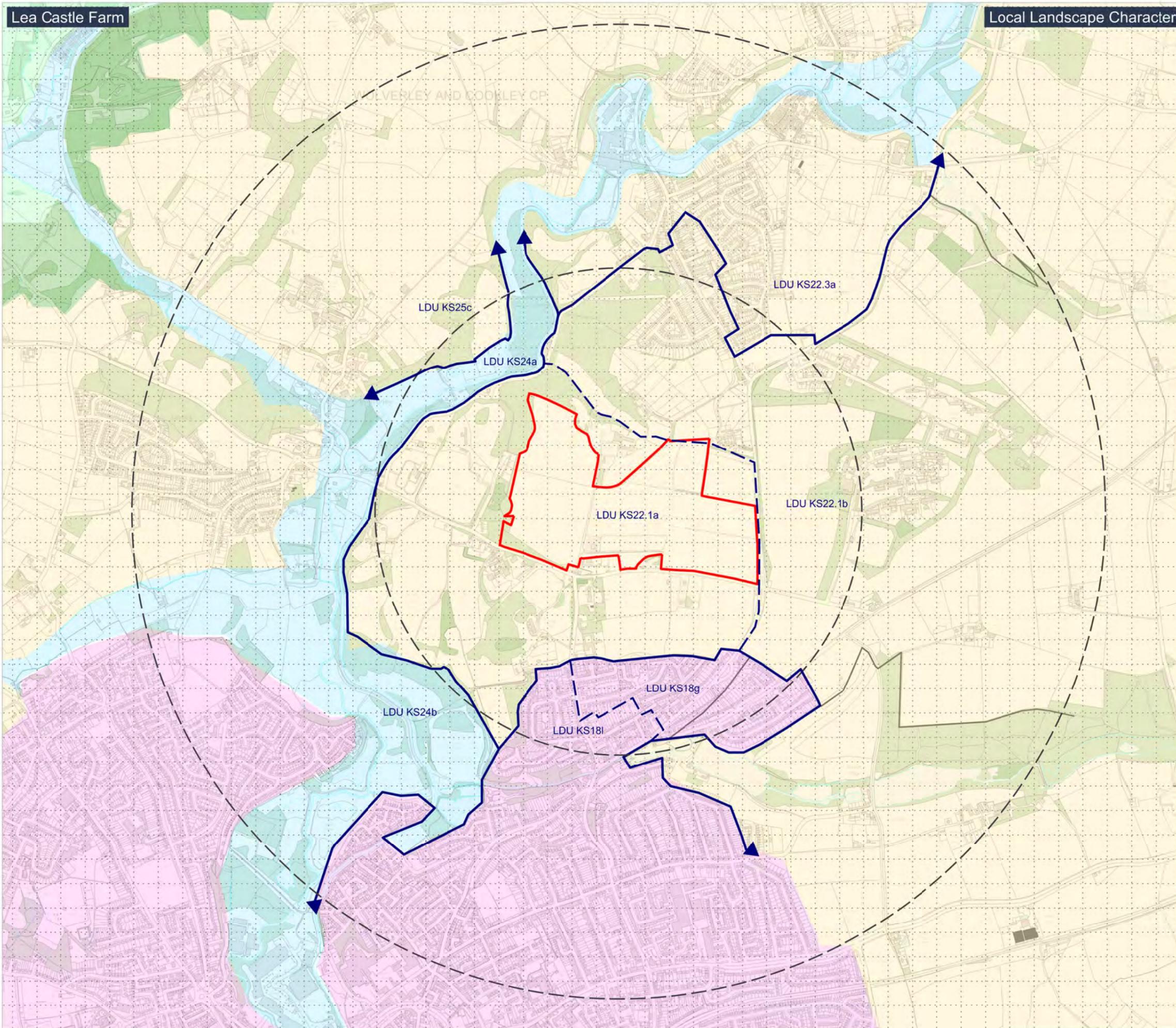
REF NO:  
**KD.LCF.016**

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DATE: **September 2019**      SCALE: **1:25,000 @ A3**

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STATUS:  
**FINAL**



## LEGEND

-  Application Boundary
  -  1km Distance Banding (from centre of Site)
  -  Sandstone Estatelands Landscape Type (LT)
  -  Riverside Meadows Landscape Type (LT)
  -  Urban
  -  Principal Wooded Hills Landscape Type (LT)
  -  Principal Timbered Farmlands Landscape Type (LT)
  -  Landscape Description Units (LDU) Within Close Proximity to the Site
  -  Land Cover Parcels (LCP) Within Close Proximity to the Site
- The Site is located within the Churchill Sandstone Estatelands LDU (KS22.1)*
- The Site is located within LCP KS22.1a*

LVIA Figure 4



PROJECT:  
Lea Castle Farm

TITLE:  
Local Landscape Character

REF NO:  
KD.LCF.020

DATE: September 2019      SCALE: 1:15,000 @ A3

STATUS:  
FINAL



Western and majority of Eastern Area: Photos A, B, and C



**Photograph A:** View looking south along internal access track of Inner Eastern Area and Western Area



**Photograph B:** Internal view from Western Area - enclosed woodland periphery. Main tree to be retained.



**Photograph C:** Inner slope of Eastern Area. Views contained by landform and vegetation structure.

Inner Site Area - Enclosed, contained landscape by landform



**Photograph D:** View looking north west illustrating the Outer Eastern Area, set within a wider visual context.

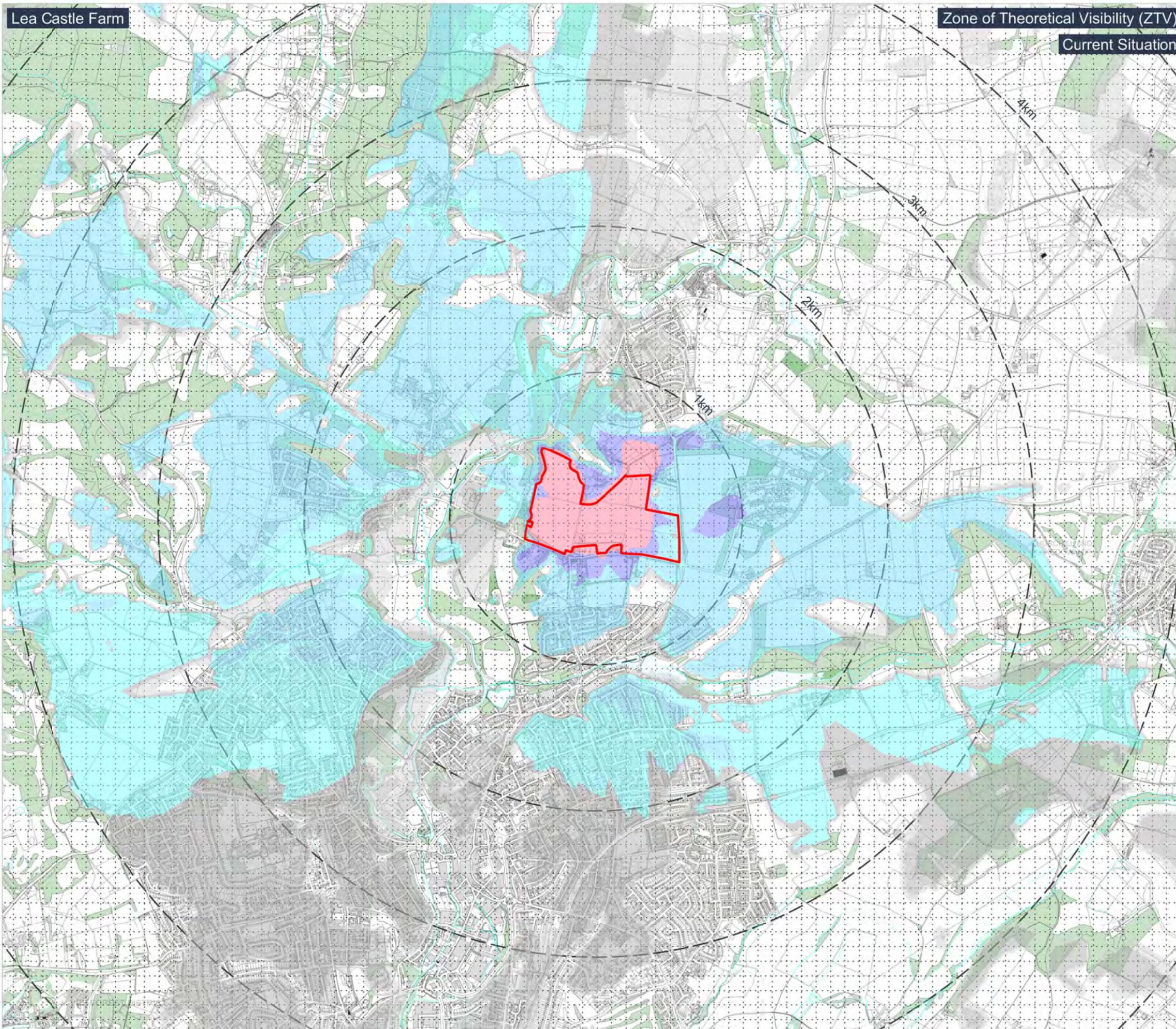


**Photograph E:** View looking west towards the Outer Eastern fields (not to be extracted)



**Photograph F:** View from within Outer Eastern Area of the Site looking south east. (land not to be extracted)

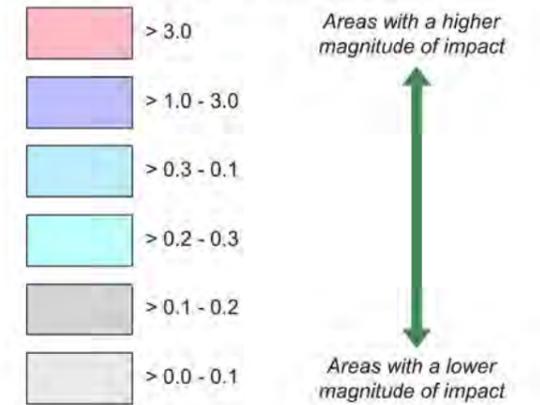
Outer Eastern Area - More open landscape within and including Wolverhampton Road corridor



**LEGEND**

-  Application Boundary
-  Distance Banding (1km Intervals)

*Zones of Theoretical Visibility*



The vertical angle is the sectional angle the site forms when viewed from a specific location. The edge of the coloured area defines the visual envelope within the Local Study Area.

This computer method helps define the measure of visual impact the proposed scheme might have by linking potential visual impact to the vertical angle subtended at the viewpoint by the top and bottom extremities of the area being viewed. This gives a measure of how much of a given field of view is occupied by the area when viewed from different locations. This method automatically takes into account what effect distance has on impact (i.e. an object close to the viewer occupies a far greater vertical angle than something hundreds of metres away).

The computation also takes account of the curvature of the earth. The ZVI values were calculated on a 25m grid across the study area and points of the same value were linked to produce 'contours' of potential 'visual magnitude'. The 'actual' Zone of Visible Influence will therefore be modified by the effects of intervening woodland, hedgerows, buildings, and minor landform features.

\*Please refer to Appendix B for detailed methodology

LVIA Figure 6



PROJECT:  
Lea Castle Farm

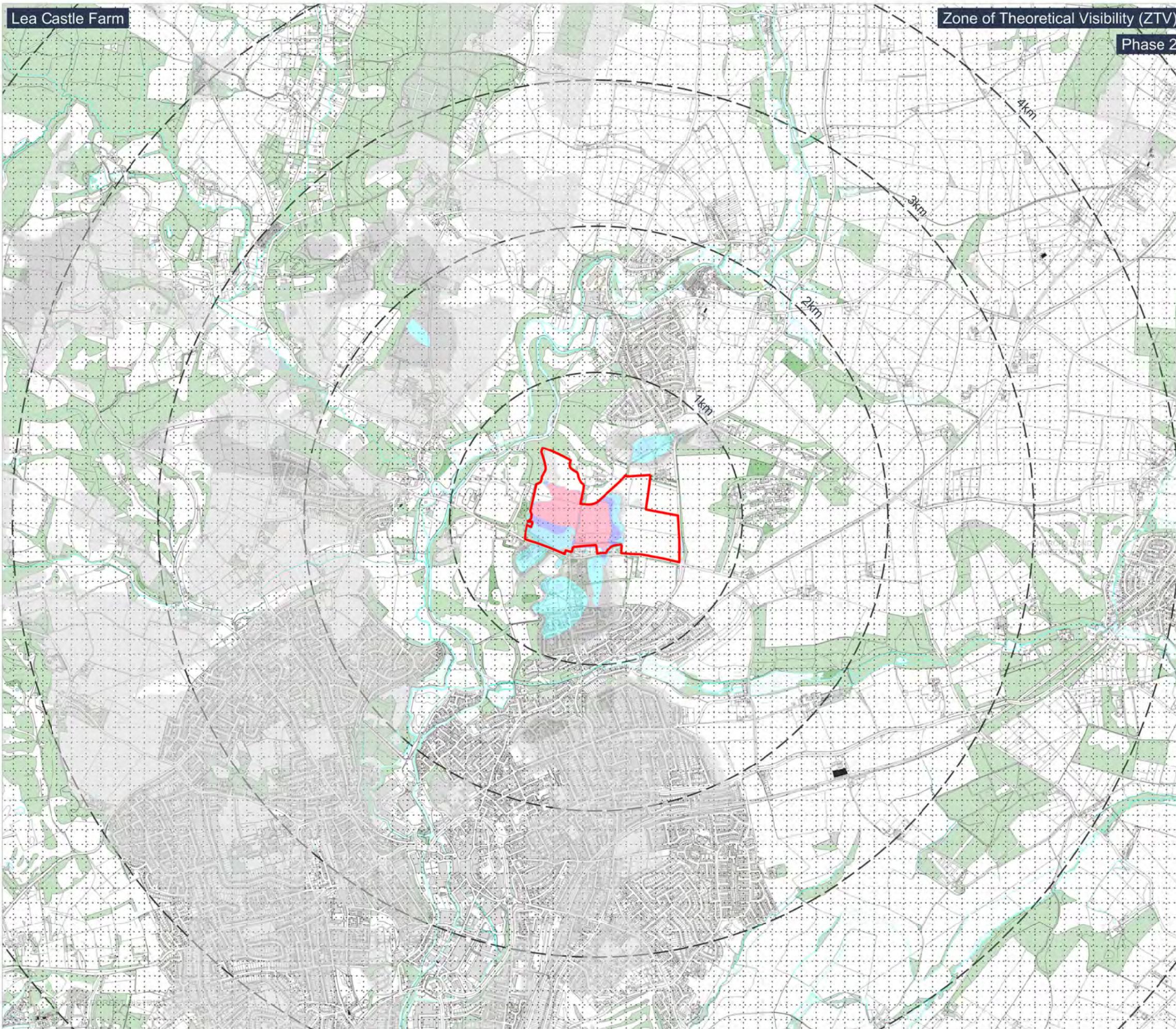
TITLE:  
ZTV - Current Situation

REF NO:  
KD.LCF.017

DATE: September 2019      SCALE: 1:25,000 @ A3

STATUS:  
FINAL





**LEGEND**

-  Application Boundary
-  Distance Banding (1km Intervals)

*Zones of Theoretical Visibility*

	> 3.0	 Areas with a higher magnitude of impact  Areas with a lower magnitude of impact
	> 1.0 - 3.0	
	> 0.3 - 0.1	
	> 0.2 - 0.3	
	> 0.1 - 0.2	
	> 0.0 - 0.1	

The vertical angle is the sectional angle the site forms when viewed from a specific location. The edge of the coloured area defines the visual envelope within the Local Study Area.

This computer method helps define the measure of visual impact the proposed scheme might have by linking potential visual impact to the vertical angle subtended at the viewpoint by the top and bottom extremities of the area being viewed. This gives a measure of how much of a given field of view is occupied by the area when viewed from different locations. This method automatically takes into account what effect distance has on impact (i.e. an object close to the viewer occupies a far greater vertical angle than something hundreds of metres away).

The computation also takes account of the curvature of the earth. The ZVI values were calculated on a 25m grid across the study area and points of the same value were linked to produce 'contours' of potential 'visual magnitude'. The 'actual' Zone of Visible Influence will therefore be modified by the effects of intervening woodland, hedgerows, buildings, and minor landform features.

\*Please refer to Appendix B for detailed methodology

L VIA Figure 7



PROJECT:  
Lea Castle Farm

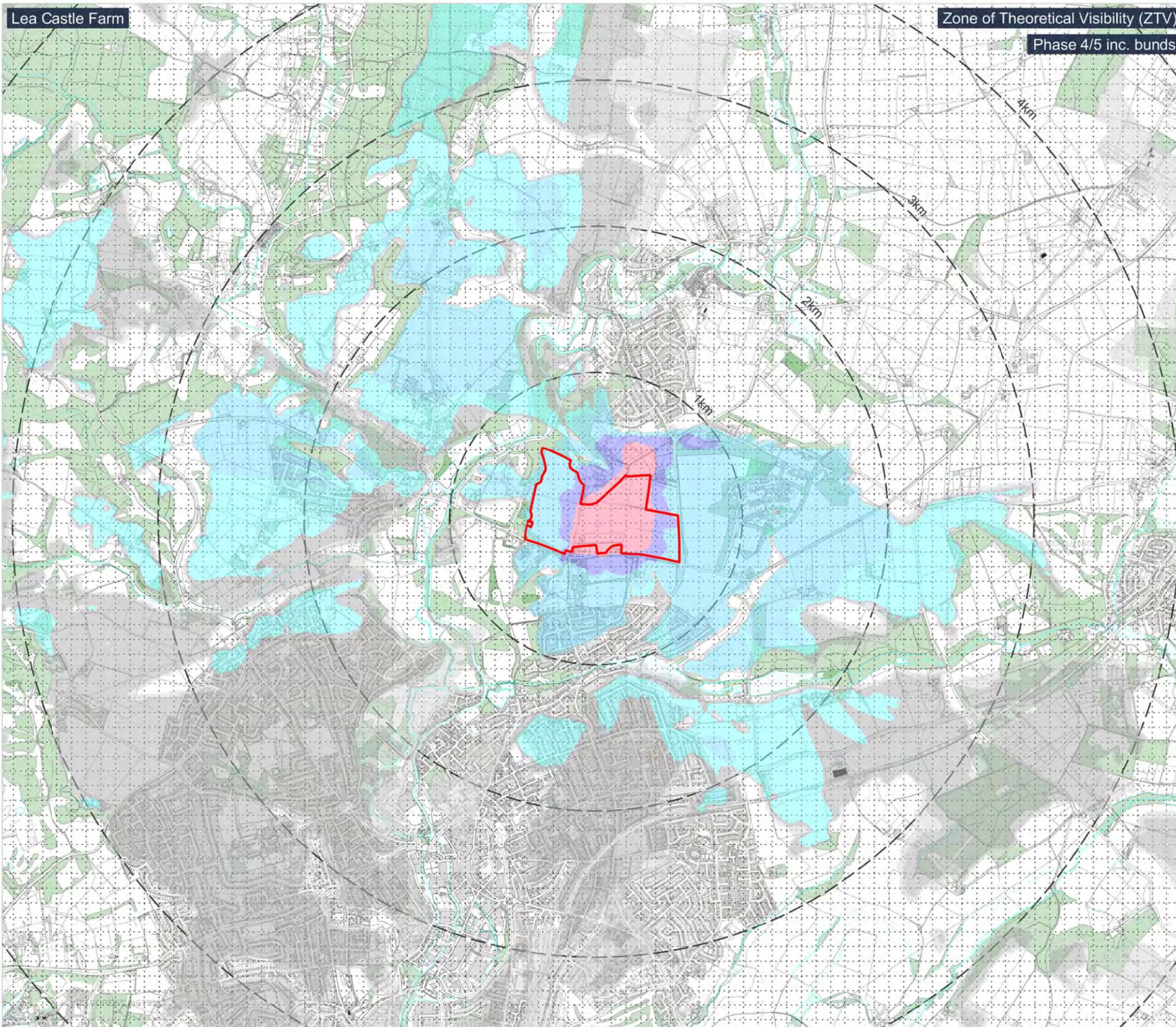
TITLE:  
ZTV - Phase 2

REF NO:  
KD.LCF.018

DATE: September 2019      SCALE: 1:25,000 @ A3

STATUS:  
FINAL





## LEGEND

-  Application Boundary
-  Distance Banding (1km Intervals)

### Zones of Theoretical Visibility

-  > 3.0
  -  > 1.0 - 3.0
  -  > 0.3 - 0.1
  -  > 0.2 - 0.3
  -  > 0.1 - 0.2
  -  > 0.0 - 0.1
- Areas with a higher magnitude of impact   
 Areas with a lower magnitude of impact

The vertical angle is the sectional angle the site forms when viewed from a specific location. The edge of the coloured area defines the visual envelope within the Local Study Area.

This computer method helps define the measure of visual impact the proposed scheme might have by linking potential visual impact to the vertical angle subtended at the viewpoint by the top and bottom extremities of the area being viewed. This gives a measure of how much of a given field of view is occupied by the area when viewed from different locations. This method automatically takes into account what effect distance has on impact (i.e. an object close to the viewer occupies a far greater vertical angle than something hundreds of metres away).

The computation also takes account of the curvature of the earth. The ZVI values were calculated on a 25m grid across the study area and points of the same value were linked to produce 'contours' of potential 'visual magnitude'. The 'actual' Zone of Visible Influence will therefore be modified by the effects of intervening woodland, hedgerows, buildings, and minor landform features.

\*Please refer to Appendix B for detailed methodology

LVIA Figure 8



PROJECT:  
Lea Castle Farm

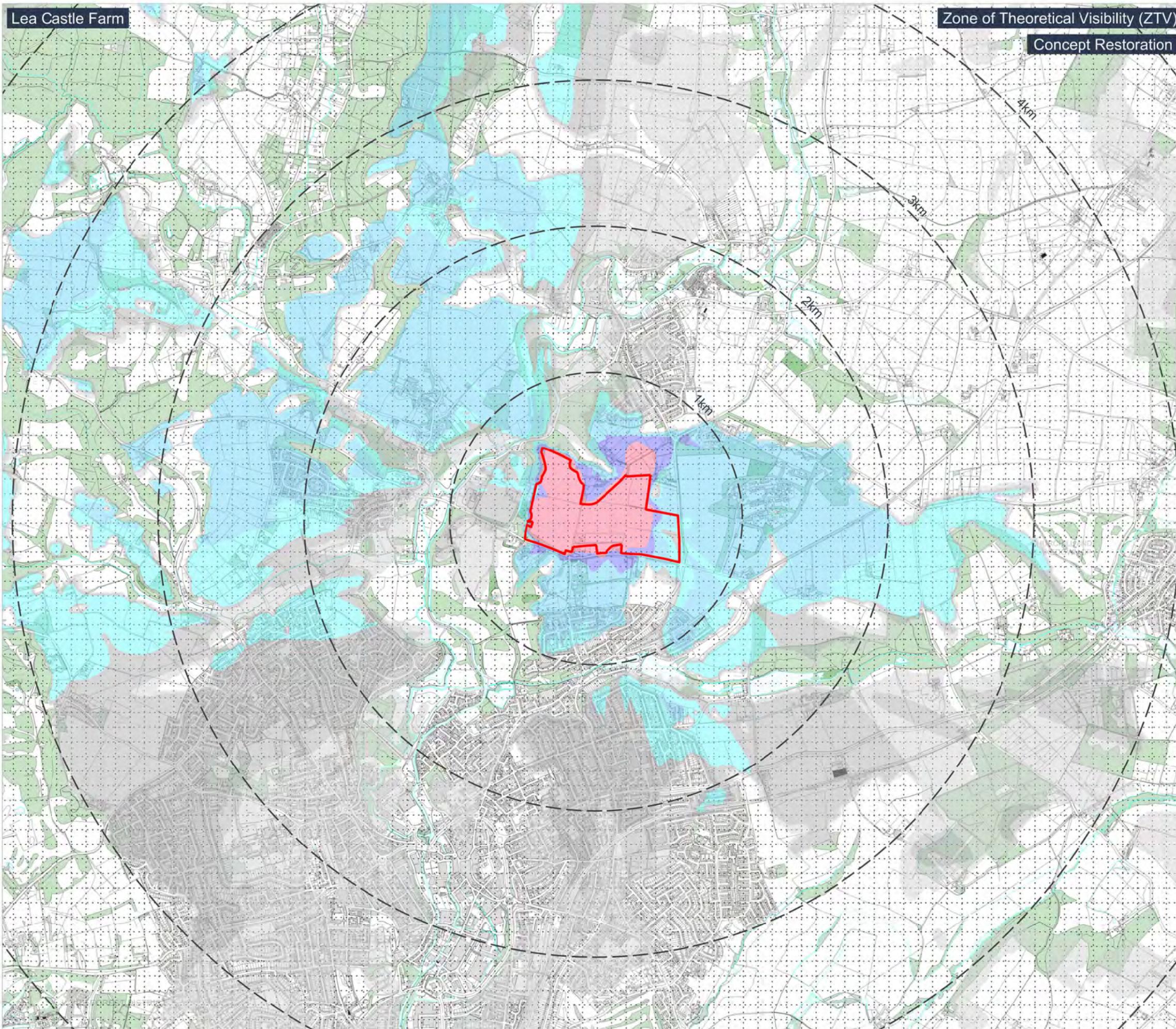
TITLE:  
ZTV - Phase 4/5 inc. Bunds

REF NO:  
KD.LCF.019

DATE: September 2019      SCALE: 1:25,000 @ A3

STATUS:  
FINAL

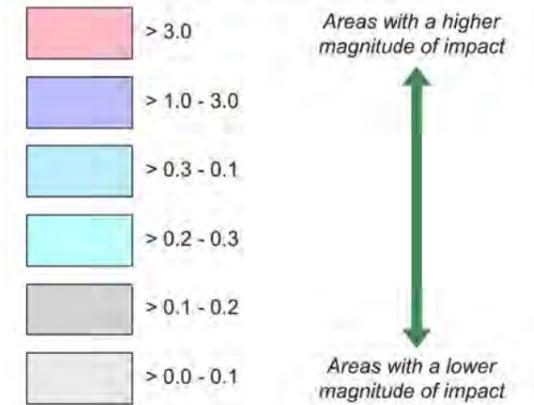




**LEGEND**

-  Application Boundary
-  Distance Banding (1km Intervals)

*Zones of Theoretical Visibility*



The vertical angle is the sectional angle the site forms when viewed from a specific location. The edge of the coloured area defines the visual envelope within the Local Study Area.

This computer method helps define the measure of visual impact the proposed scheme might have by linking potential visual impact to the vertical angle subtended at the viewpoint by the top and bottom extremities of the area being viewed. This gives a measure of how much of a given field of view is occupied by the area when viewed from different locations. This method automatically takes into account what effect distance has on impact (i.e. an object close to the viewer occupies a far greater vertical angle than something hundreds of metres away).

The computation also takes account of the curvature of the earth. The ZVI values were calculated on a 25m grid across the study area and points of the same value were linked to produce 'contours' of potential 'visual magnitude'. The 'actual' Zone of Visible Influence will therefore be modified by the effects of intervening woodland, hedgerows, buildings, and minor landform features.

\*Please refer to Appendix B for detailed methodology

LVIA Figure 9



PROJECT:  
Lea Castle Farm

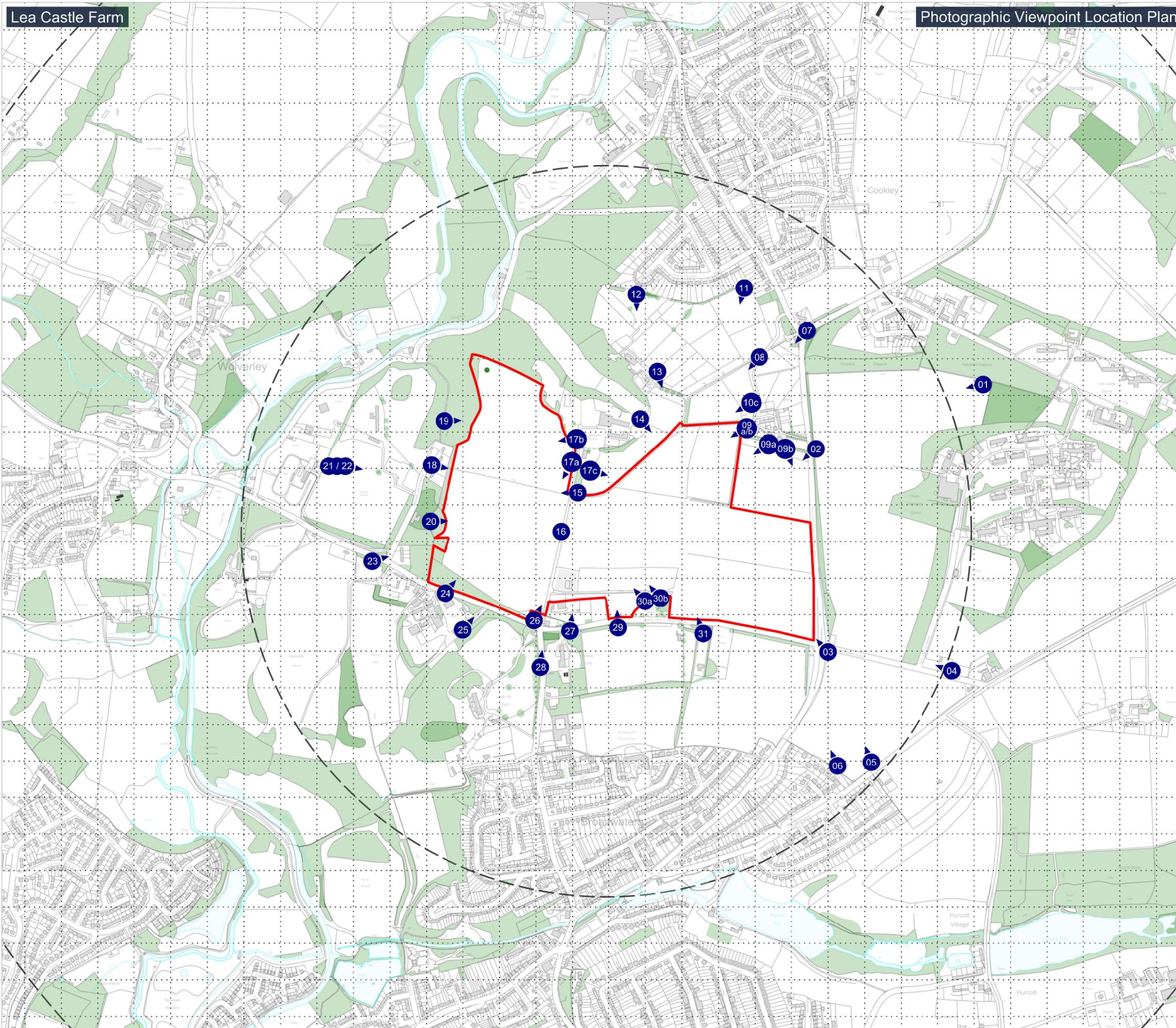
TITLE:  
ZTV - Concept Restoration

REF NO:  
KD.LCF.027

DATE: September 2019      SCALE: 1:25,000 @ A3

STATUS:  
FINAL





**LEGEND**

- Application Boundary
- 1km Distance Banding (from centre of Site)
- 01 Photographic Viewpoint Location

LVIA Figure 10



PROJECT:  
Lea Castle Farm

TITLE:  
Photographic Viewpoint Location Plan

REF NO:  
KD.LCF.015

DATE:  
October 2019

SCALE:  
1:10,000 @ A3

STATUS:  
FINAL





Receptor Viewpoint 1 - from PROW Ref 62 8(B) looking south west at a distance of ~630m from the site entrance boundary and ~ 770m from the eastern extraction limit



Receptor Viewpoint 2 - view of Wolverhampton Road looking south west at a distance of ~ 190m from the site entrance boundary at ~ 244m from the eastern extraction limit.



Receptor Viewpoint 3 - view of Wolverhampton Road, Wolverley Road and Park Gate Road traffic light junction at a distance of ~35m



Receptor Viewpoint 4 - views of Park Gate Road looking westward to the sites eastern boundary at a distance of ~300m

Receptor photographic views from the south east of the Site



Receptor Viewpoint 5 - residences located off Stourbridge Road looking north westward towards the site at a distance of between ~ 380m to ~ 470m.



Receptor Viewpoint 6 - residences located at Heath Drive looking north westward towards the site eastern boundary at a distance of ~ 300m to ~ 410m.



Receptor Viewpoint 7 - residences / setting of North Lodges / PROW Ref 62 5(B) looking south towards the Sites northern boundary from a distance of ~ 296m.



Receptor Viewpoint 8 - views from PROW Ref 62 5(B) and vehicular access to Keepers Cottage and Castle Barns, looking south towards the Sites northern boundary at a distance of ~190m.

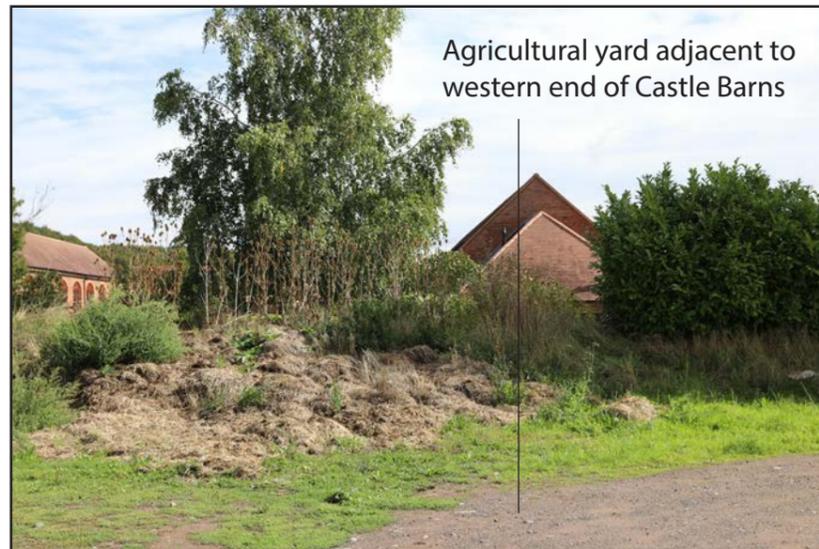


Receptor Viewpoint 9a - photograph from adjacent to residential property, the White House / Castle Barns. Looking south west towards the sites eastern boundary at a distance of ~30m.



Receptor Viewpoint 9b - photograph from adjacent to residential property, the White House / Castle Barns. Looking south and south to east from the same location as above.  
(looking away from the Site to the wider panoramic view)

Receptor photographic views from the north east of the Site



Receptor Viewpoint 10a - view looking towards Castle Barns from agricultural access track and yard to the west.



Receptor Viewpoint 10b - view looking along the southern boundary of Castle Barns from adjacent field.



Receptor Viewpoint 10c - from vehicle access into Castle Barns looking south at a distance of ~ 70m.

Receptor photographic views from the southern boundary of Cookley



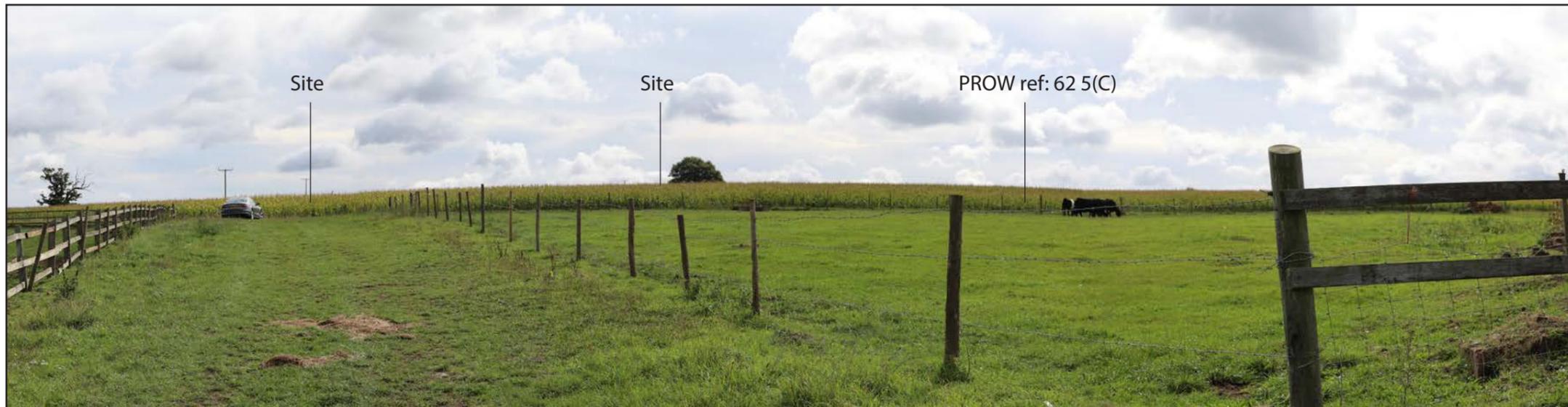
Receptor Viewpoint 11 - from edge of rear gardens of properties off Westhead Road, Cookley. Looking south at a distance of ~ 400m from the sites northern boundary.



Receptor Viewpoint 12 - from edge of rear gardens of properties off Woodlands Road/Westhead Road, Cookley. Looking south east at a distance of ~ 400m from the sites northern boundary.



Receptor Viewpoint 13 - residents of Keepers Cottage looking south eastwards towards the eastern area of the site.



Receptor Viewpoint 14 - view looking east from the edge of Lea Castle Farm Horse Paddock, towards FP 62 5(B) and approximately 75m away from the Eastern Area of Phase 5

Receptor photographic views from the southern boundary of Cookley



Receptor Viewpoint 15 - views of FP62 5(B) to the sites western and eastern area of extraction/eastern plant site.



Receptor Viewpoint 16 - views of FP62 6(B) along the existing track which divides the Western and Eastern Areas.

## Receptor photographic views from Lea Castle Equestrian Centre Bungalow



Receptor Viewpoint 17a - residential Bungalow associated with Lea Castle Equestrian Centre looking south/southwest.



Receptor Viewpoint 17b - residential Bungalow associated with Lea Castle Equestrian Centre looking west.



Receptor Viewpoint 17c - eastern horse pasture / land associated with Lea Castle Equestrian Centre looking east towards the site at a distance of ~ 85m.



Receptor Viewpoint 18 - residential receptors located off Brown Westhead Park Road



Receptor Viewpoint 19 - taken from FP62 2(c) looking east towards the site at a distance of ~ 15m.



Receptor Viewpoint 20 - taken from FP62 3(B) looking east towards the site at a distance of ~ 15m.



Receptor Viewpoint 21/22 - views of Brown Westhead Park and playing fields together with receptor views from gaps in hedgerow looking east towards the sites western area and eastern boundary Wolverley Camping and Caravanning Club Site.

Receptor photographic views from the south west of the Site



Receptor Viewpoint 23 - residents of properties at the southern end of Brown Westhead Road (rear views) towards the site at a distance of ~ 110m.



Receptor Viewpoint 24 - staff, pupils and visitors exit onto Wolverley Road from Heathfield Knoll School and First Steps - site opposite.



Receptor Viewpoint 25 - Staff, pupils and within outer environs of Heathfield Knoll School and First Steps.



Entrance to school - opposite wall to south western Site boundary (in need of repair)

Receptor photographic views from the south of the Site



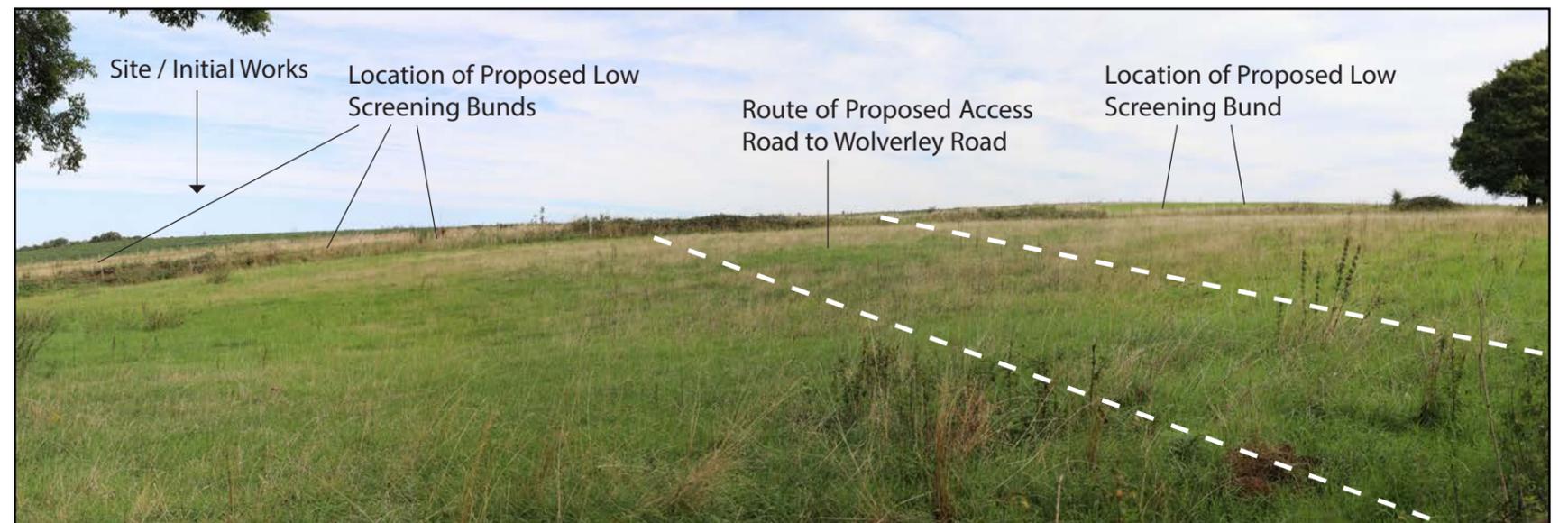
Receptor Viewpoint 26 - residential receptors at South Lodge looking north towards both areas of the site.



Receptor Viewpoint 27 - outside one of the entrances to Abbot Croft (residential), set off Wolverley Road and Sion Hill road. Looking north towards the site.



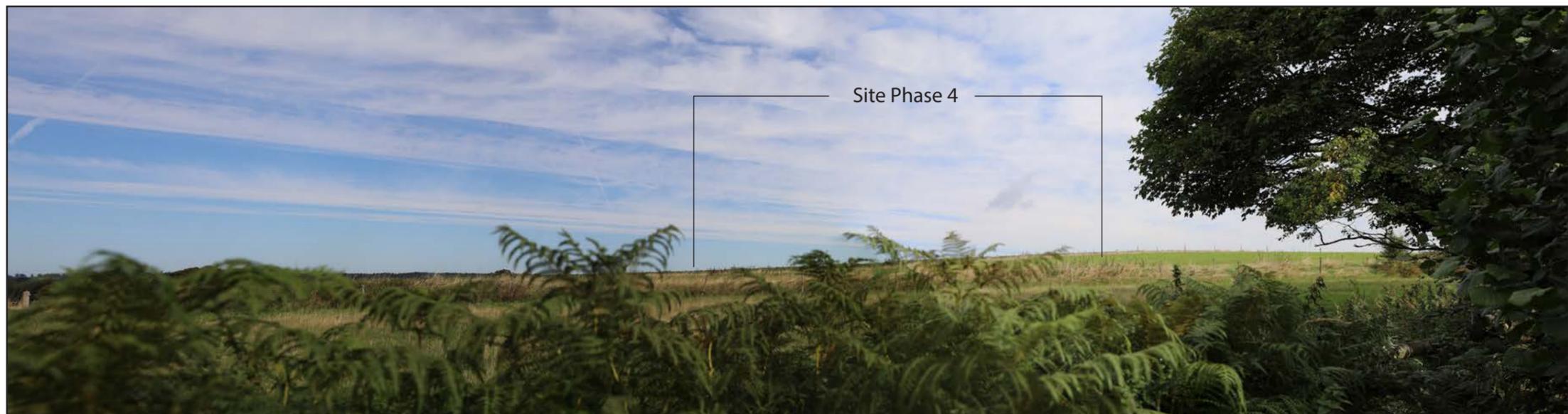
Receptor Viewpoint 28 - views of Sion Hill road travelling north towards the site.



Receptor Viewpoint 29 - pedestrian and possible vehicle user views from Wolverley Road of the Proposed Site Entrance once the section of wall is temporarily removed to allow access.



Receptor Viewpoint 30a - Broom Cottage from the curtilage of the garden looking north west.



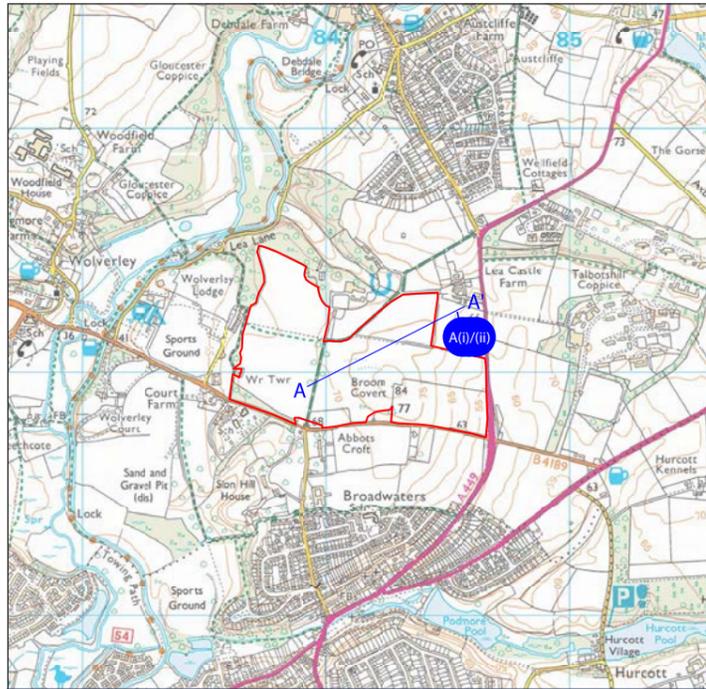
Receptor Viewpoint 30b - residents of Broom Cottage view over the properties northern boundary hedge towards the site.



Receptor Viewpoint 31a - Four Winds - view of property facing north over Wolverley Road towards the site.



Receptor Viewpoint 31b - access view from Wolverley Road from Four Winds and a second property to the south



Location of Photographic Image - 1:15,000 @A3

Comment: Photographic Image A(i) illustrates the current view from the hedged boundary to Castle Barns/White House looking south/south west towards the proposed Phase 4,5 and Plant Site.

Photographic Image A(ii) highlights the approximate location of the proposed development set behind the ridgeline. Extraction and restoration will be set down below the ridge and screened from view. A slight landform bund and new planting will further screen and integrate the scheme.

- A(i) Viewpoint Location
- Existing Ground Levels
- Base of Extraction
- Progressive Restoration (based on Phase 4 extraction)
- Progressive Restoration (based on Phase 5 extraction)
- - - - Line of Sight

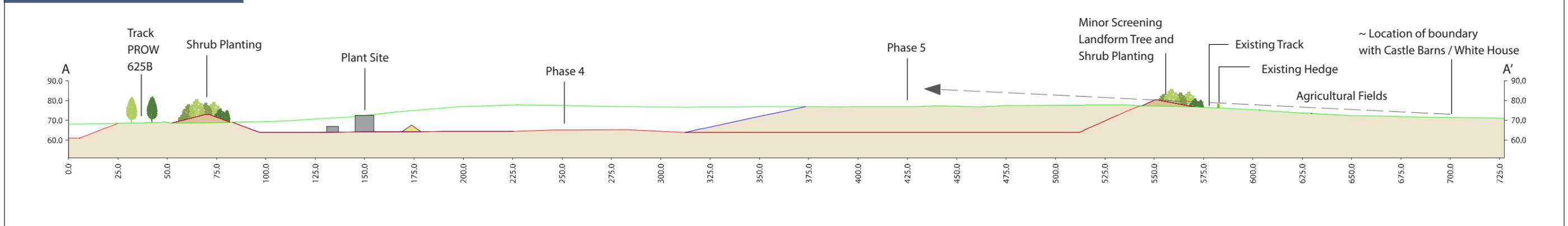


Photographic Image A(i) - Current Situation View looking south west towards Wolverley Road

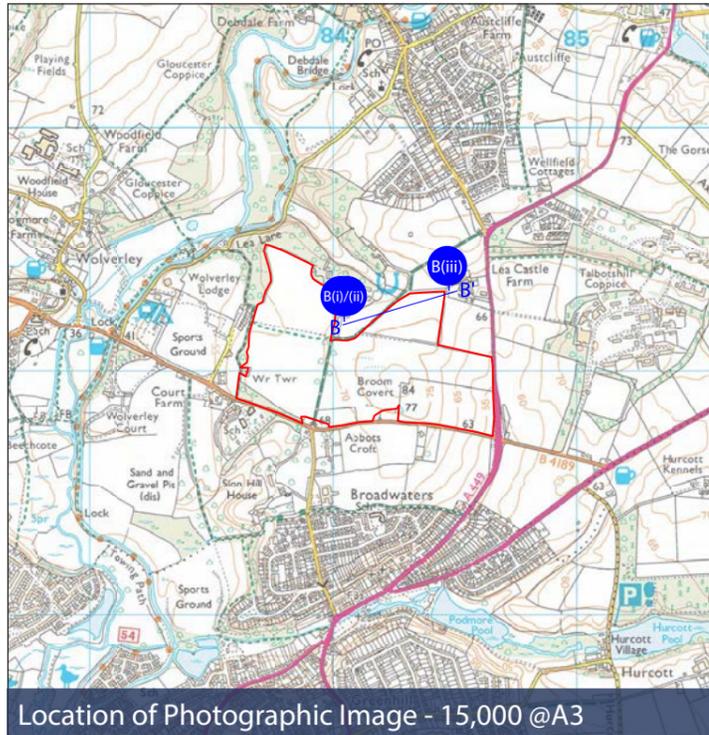


Photographic Image A(ii) - Illustrative image of Proposed Scheme superimposed within Photograph 1(i)

Section A-A' - Scale 1:2000 @A3



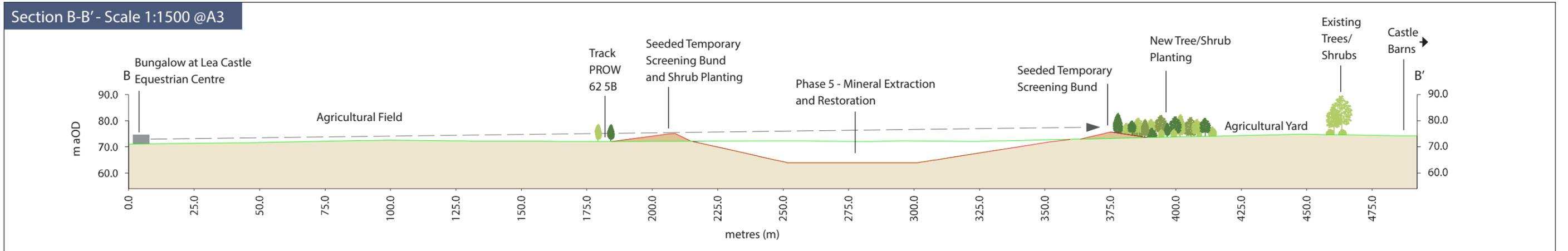
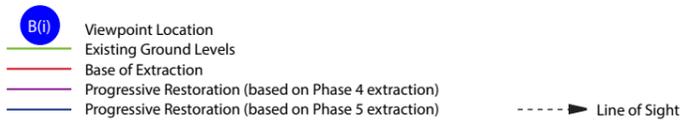
Section A-A' - View looking south/south west from Castle Barns/White House



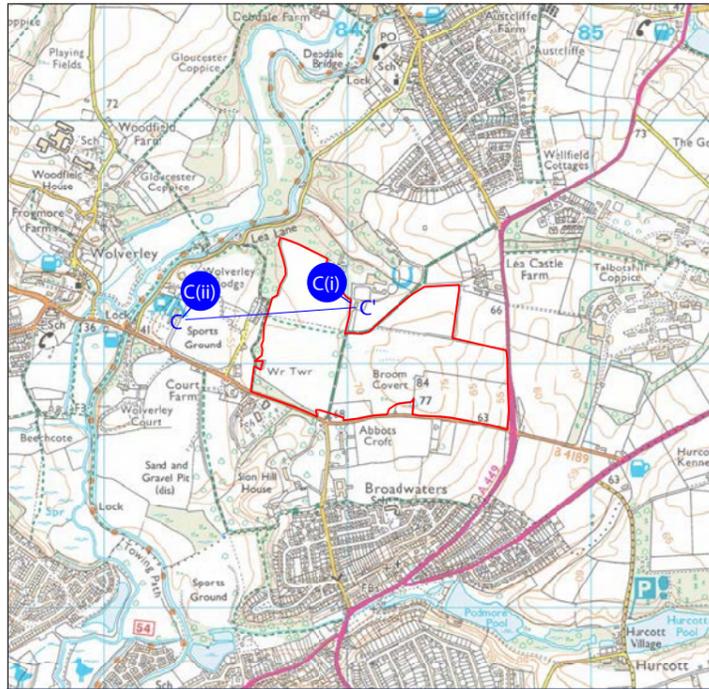
Comment: Photographic Image B(i) illustrates the current view from the boundary of the Bungalow at Lea Castle Equestrian Centre looking east towards the proposed Phase 5.

Photographic Image B(ii) highlights the approximate location of the proposed development. The Scheme will be screened by temporary seeded and maintained bunding and shrub planting.

Photograph B(iii) illustrates the boundary between the Site's north eastern corner and Castle Barns.

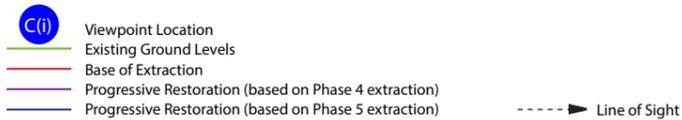


Section B-B' - View looking east from Bungalow LCEC



Location of Photographic Image - 15,000 @A3

Comment: As can be seen by Photographic Images C(i) and C(ii), the Proposed Development will be screened behind existing higher ground vegetation and structures. A further internal screening bund will also contain Site activities.

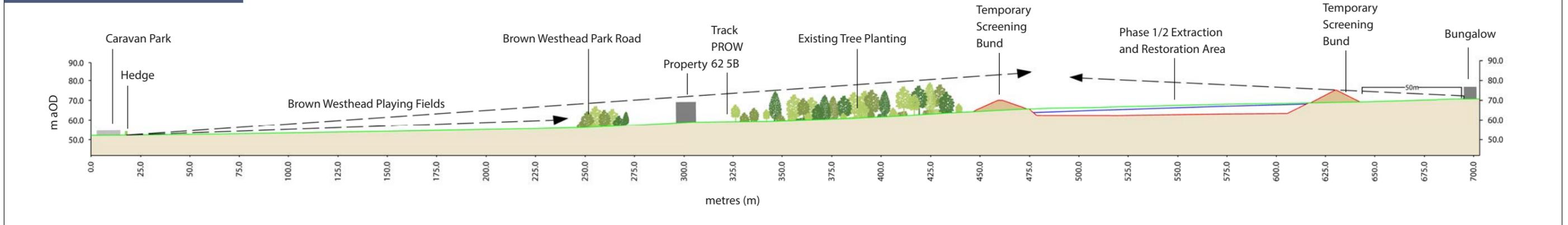


Photographic Image C(i) - Current Situation

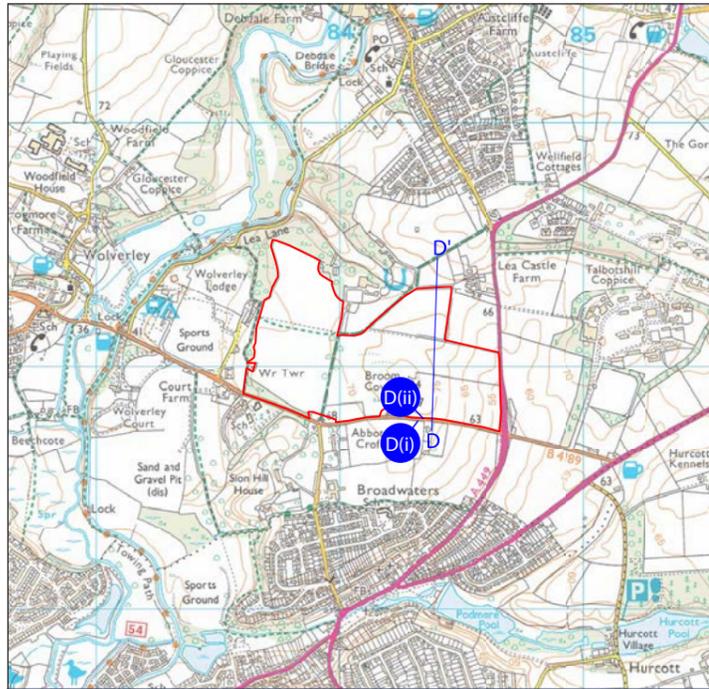


Photograph C(ii) Illustrative image of the Proposed Scheme looking eastwards towards Phases 1, 2 and 3 and

Section C-C' - Scale 1:2000 @A3



Section C-C' - View looking west from Bungalow



Location of Photographic Image - 15,000 @ A3

Comment: Photographic Image D(i) illustrates the view looking south towards Phase 5 of the site from PROW 625B. The site will be screened by both the site peripheral bund and progressive phase working and restoration.

Photographic Image D(ii) illustrates the current situation from ground levels looking towards the site from Wolverley Road.

A combination of existing vegetation, landforms, distance, the roadside wall and a site internal bund will prevent views of the site from this location.

- D(i) Viewpoint Location
- Existing Ground Levels
- Base of Extraction
- Progressive Restoration (based on Phase 4 extraction)
- Progressive Restoration (based on Phase 5 extraction)
- - - - - Line of Sight

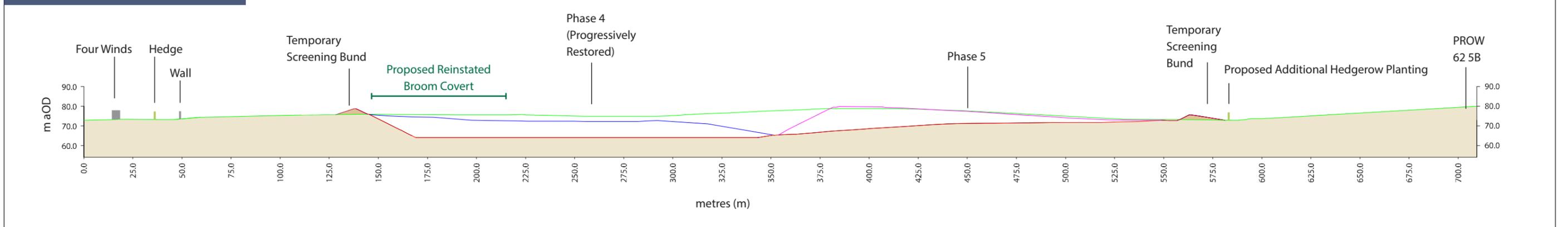


Photographic Image D(i) - View looking east along Wolverley Road with Four Winds to the right hand side of the panorama view



Photographic Image D(ii) - Current Situation view looking north from Wolverley Road opposite driveway towards Four Winds

Section D-D' - Scale 1:2000 @A3



Section D-D' - Views looking North and South towards the site from Four Winds, Wolverley Road and PROW 625B



Location of Photographic Image - 1:15,000 @ A3

Comment: Photographic Image E(i) illustrates the current photographic view from the highest south/eastern area of the proposed Lea Castle Village.

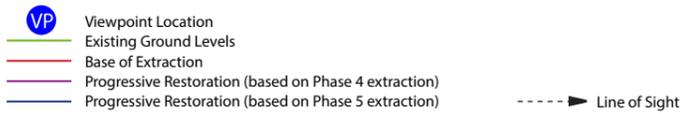
Photographic Image E(ii) highlights the approximation of the proposed scheme set back behind the existing ridge, minor screening landform and hedgerows. The view will not noticeably change.



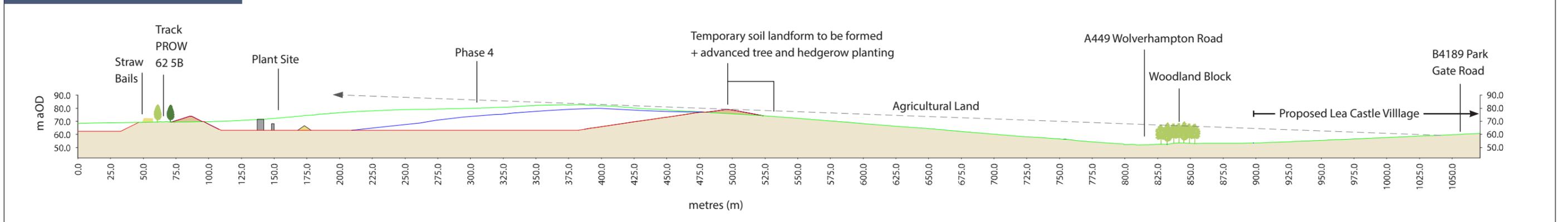
Photographic Image E(i) - Current Situation



Photograph Image E(ii) - Illustrative image of the Proposed Scheme superimposed within Photograph 5(i)



Section E-E' - Scale 1:3000 @A3



Section E-E' - View from the southern area of the proposed Lea Castle Village looking north west through the site.

**APPENDIX B**

<b>Appendix B</b>	<b>Methodology</b>
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## APPENDIX B METHODOLOGY

### Assessment Approach

1. This assessment makes use of the methodology as set out within the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition published jointly by The Landscape Institute and Institute of Environmental Management and Assessment, 2013, as well as those as set out within the Landscape Character Assessment. Guidance for England and Scotland published jointly by The Countryside Agency and Scottish Natural Heritage, 2002.
2. GLVA 3 defines the definition of what the term 'landscape' means. Paragraph 2.2 states Since the European Landscape Convention (ELC) in 2002 which the UK has signed and ratified, the ELC adopts a definition of landscape that is now being widely used in many different situations and is adopted in this guidance:  
'Landscape is an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors' (Council of Europe, 2000).  
GLVA 3 carries on to state that the inclusive nature of landscape was captured there [GLVA 2] in a paragraph stating that: *Landscape is about the relationship between people and place. It provides the setting for our day-to-day lives. The term does not mean just special or designated landscapes and it does not only apply to the countryside. Landscape can mean a small patch of urban wasteland as much as a mountain range, and an urban park as much as an expanse of lowland plain. It results from the way that different components of our environment - both natural (the influences of geology, soils, climate, flora and fauna) and cultural (the historical and current impact of land use, settlement, enclosure and other human interventions) - interact together and are perceived by us. People's perceptions turn land into the concept of landscape. (Swanwick and Land Use Consultants, 2002: 2)*
3. The assessment process is intended to provide an objective method of establishing the significance of effect of a proposed development on an areas landscape character and visual amenity. The sensitivity nature of landscape receptors to change, combines with a judgement of the magnitude or nature of effect a particular development is likely to cause, to provide an assessment of the potential significance of effect the proposed development may have on local landscape character and visual amenity.
4. GLVA 3 at paragraph 5.1 defines the assessment of landscape effects as being: *An assessment of landscape effects deals with the effects of change and development on landscape as a resource.*
5. GLVA 3 at paragraph 6.1 defines the assessment of visual effects as being: *An assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity.*

6. This study identifies and evaluates and quantifies the main landscape and visual effects associated with the proposed development are quantified, however the nature of landscape and visual impact assessment requires interpretation by professional judgement. In order to provide a level of consistency to the assessment, the prediction of magnitude and assessment of significance of the residual landscape and visual impacts have been based on pre-defined criteria.

### **Landscape and Visual Baseline**

7. GLVA 3 at paragraph 3.15 states that the initial step in LVIA is to establish the baseline landscape and visual conditions. The information collected will, when reviewed alongside the description of the proposed development, form the basis for the identification and description of the changes that will result in the landscape and visual effects of the proposal: *For the landscape baseline the aim is to provide an understanding of the landscape in the area that may be affected - its constituent elements, its character and the way this varies spatially, its geographic extent, its history..., its condition, the way the landscape is experienced, and the value attached to it. For the visual baseline the aim is to establish the area in which the development may be visible, the different groups of people who may experience views of the development, the places where they will be affected and the nature of the views and visual amenity at those points.*

### **Establishing the Landscape Baseline**

8. GLVA 3 at paragraph 5.3 states that Baseline studies for assessing landscape effects require a mix of desk study and fieldwork to identify and record the character of the landscape and the elements, features and aesthetic and perceptual factors which contribute to it. They should also deal with the value attached to the landscape.
9. In addition, GLVA 3 at paragraph 5.4 states *that In rural landscapes..., Landscape Character Assessment (LCA) is the key tool for understanding the landscape and should be used for baseline studies. There is a well-established and widely used method for LCA, which is set out in current guidance documents. This should be used to identify and describe: The elements that make up the landscape in the study area, including*
  - *physical influences - geology, soils, landform, drainage and water bodies;*
  - *land cover, including different types of vegetation and patterns and types of tree cover;*
  - *the influence of human activity, including land use and management, the character of settlements and buildings, and pattern and type of fields and enclosure;*
  - *the aesthetic and perceptual aspects of the landscape - such as, for example, its scale, complexity, openness, tranquillity or wildness;*
  - *the overall character of the landscape in the study area, including any distinctive Landscape Character Types or areas that can be Identified, and*

*the particular combinations of elements and aesthetic and perceptual aspects that make each distinctive, usually by identification as key characteristics of the landscape.*

### **Establishing the Visual Baseline**

10. With regard to the Visual Baseline the assessment process concentrates on the publicly accessible areas. To this end a series of viewpoints were selected for use in verifying the potential effects of the proposed development upon the visual amenity of the study area.
11. GVLA 3 at paragraph 6.20 states, the selection of the final viewpoints used for the assessment should take account of a range of factors, including:
  - the accessibility to the public;
  - the potential number and sensitivity of viewers who may be affected;
  - the viewing direction, distance (i.e. short-, medium- and long-distance views) and elevation;
  - the nature of the viewing experience (for example static views, views from settlements and views from sequential points along routes);
  - the view type (for example panoramas, vistas and glimpses);
  - the potential for cumulative views of the proposed development in conjunction with other developments.
12. Typically, receptors considered to be representative of viewpoints within the study area include:
  - Residential receptors;
  - Recreational/leisure receptors including anglers, walkers, water users and cyclists; and
  - Road and rail users.
13. GVLA 3 at paragraph 6.24 states that the visual baseline should focus on information that will help to identify significant visual effects.... *A baseline report should combine information on:*
  - *the type and relative numbers of people (visual receptors) likely to be affected, making clear the activities they are likely to be involved in;*
  - *the location, nature and characteristics of the chosen representative, specific and illustrative viewpoints, with details of the visual receptors likely to be affected at each;*
  - *the nature, composition and characteristics of the existing views experienced at these viewpoints, including direction of view;*
  - *the visual characteristics of the existing views, for example the nature and extent of the skyline, aspects of visual scale and proportion, especially with respect to any particular horizontal or vertical emphasis, and any key foci;*
  - *elements, such as landform, buildings or vegetation, which may interrupt,*

*filter or otherwise influence the views.*

14. GLVA 3 at paragraph 6.3 states that Baseline studies for visual effects should establish..., *the area in which the development may be visible, the different groups of people who may experience views of the development, the viewpoints where they will be affected and the nature of the views at those points. Where possible it can also be useful to establish the approximate or relative number of different groups of people who will be affected by the changes in views or visual amenity, while at the same time recognising that assessing visual effects is not a quantitative process. In addition, GLVA 3 at paragraph 6.4 also states that These factors are all interrelated and need to be considered in an integrated way rather than as a series of separate steps...*
15. GLVA 3 at paragraph 6.6 states that *Land that may potentially be visually connected with the development proposal - that is, areas of land from which it may potentially be seen - must be identified and mapped at the outset.... Visibility mapping is an important tool in preparing the visual effects baseline but does not in its own right identify the effects. It can also play an important part in the different stages of the iterative design process. It can, for example, contribute to the early stages of site design and assessment to determine the potential visibility of a site.... It can also be used to help in the consideration of concept layout and design alternatives in response to the potential visibility of different options.*

### **The Assessment Process**

16. GLVA 3 at paragraph 4.16 states that *the characteristics of projects, and hence the possible landscape and visual effects they may have, are likely to vary throughout the life of the project. The construction, operation, decommissioning and restoration/reinstatement phases of a development are usually characterised by quite different physical elements and activities. A separate, self-contained description of the development at each stage in the life cycle is therefore needed to assist in understanding the scheme and then in prediction of landscape and visual effects.*
17. The landscape and visual assessment process consists of a number of stages as set out below:
  - Identification of the source/aspects of the development likely to give rise to effects during the different stages in the life of the project (construction, operation, decommissioning and restoration phases).
  - Identification of components/receptors most likely to be affected by the development (this will vary during the different stages in the life of the project).
  - Description of the interaction of the receptors with aspects of the development (this will vary during the different stages in the life of the project).

- Assessment of the Nature of the Landscape and Visual Receptors (Sensitivity) in relation to the identified aspects of the development.
- Assessment of the Nature or Magnitude of Effects in light of both the primary and secondary Mitigation Measures adopted (see below).
- Assessment of the Significance of Residual Effects. Nature or Sensitivity of Landscape Receptors

### **Nature of Sensitivity of Landscape Receptors**

18. Assessment of receptor sensitivity involves an evaluation of the 'Nature of the Receptor' (Sensitivity), in respect of the identified aspects of the development likely to give rise to effects. The receptors Sensitivity is considered to be dependent upon the susceptibility to change of the receptor with respect to the permitted or proposed development and on the value attached to either the landscape (landscape assessment) or view (visual assessment).
19. Susceptibility to change can be defined as being the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation.
20. The Value of a landscape or view can be defined as consisting of a number of factors that help identify how a particular landscape can be valued. This can include, but not limited to:
  - It's quality or condition as a measure of the physical state of the landscape. Scenic quality used to describe landscapes that appeal primarily to the senses (primarily visual).
  - Rarity or the presence of rare elements or features in the landscape or the presence of a rare Landscape Character Type.
  - Representativeness and whether the landscape contains a particular character and/or features or elements which are considered particularly important examples.
  - Planning Designations and Conservation Interests where value attached to particular landscapes are recognised through International, National or Local designations including the presence of features of wildlife, earth science or archaeological, historical or cultural interest which can add to the value of the landscape.
  - Recreational Value where the physical experience of the landscape is important.
  - Perceptual Aspects where a landscape may be valued for its perceptual qualities, such as wildness and/or tranquillity.

- Physical or Literary Indicators/Associations where landscapes are associated with particular people, such as artists or writers, or events in history that contribute to perceptions of the natural beauty of the area, or the value attached to particular locations/views are recognised, for example through appearances in guidebooks or on tourist maps, or the provision of facilities for their enjoyment such as parking places, sign boards and interpretive material.
21. Criteria used to determine the degree of susceptibility of landscape receptors to change and their perceived value are given below in Tables A-1 and A-2 respectively. NOTE: These scales are generic and therefore capable of being modified by the type of development being assessed, including size, scale and distance.
22. An assessment was made of both susceptibility and value based on a five point textual scale: *Very Low, Low, Medium, High and Very High*. This information is then combined to arrive at an overall sensitivity of the receptor as a whole which is also expressed as a five-point textual scale Very Low to Very High. See Table A-5 below.

Table A-1: Criteria used to determine the Susceptibility of the Landscape Receptor

Landscape Receptor	Susceptibility to Change
<p>Very open, expansive and cohesive landscapes with long views allowing views into and out of the landscape. Landscapes that are uncluttered with natural skylines without man made elements. Landscapes which retain a high degree of intactness, in very good condition and high quality which are not subject to change. Landscapes often associated with rural and/or a historic character and of cultural importance. These types of landscape may be subject to or contain various historic or nature conservation designations</p>	<p>Very High</p> 
<p>Open cohesive landscapes with medium to long views allowing views into and out of the landscape. Landscapes that are generally uncluttered with mainly natural skylines without man made elements. Landscapes which retain a degree of intactness, in good condition and quality and which are infrequently subject to change. Landscapes may be associated with some degree of rural and/or a historic character and of cultural importance.</p>	
<p>Complex rural landscapes and/or suburban areas with medium to distant scale views – containing both open and enclosed aspects generally intact and in good condition. Settlement and built form are elements of the landscape with few man- made structures such as power lines and telecommunication masts present.</p>	
<p>Simple rural landscapes and/or suburban areas with local to medium scale views – containing both open and enclosed aspects somewhat intact and in medium condition. Settlement and built form common elements of the</p>	

landscape with manmade structures such as power lines and telecommunication masts present.	
Dynamic, complicated landscapes in which change frequently occurs and generally in poor condition and no strong vernacular style. Long views are limited and often truncated. Landscapes may have complex skylines and/or dominated by man-made structures and subject to frequent change. These types of landscape are often, although not exclusively associated with industrial and/or urban areas/fringes.	
Very Low	

Table A-2: Criteria used to determine the Value of the Landscape Receptor

Landscape Receptor	Susceptibility to Change
Internationally valued landscapes such as World Heritage Sites, nationally valued landscapes (National Parks, Areas of Outstanding Natural Beauty, National Scenic Areas or other equivalent areas).	
Locally valued landscapes, for example local authority landscape designations or landscapes assessed as being of equivalent value (Special Landscape Areas), or strong presence other designations linked to historic, natural or cultural elements (Scheduled Ancient Monuments, Historic Parks and Gardens, Ancient Semi Natural Woodlands, Conservation Areas, Listed Buildings).	
Local landscapes that are not nationally or locally designated but are valued as a resource for recreation, outdoor activities and scenic value.	
Local landscapes that are not nationally or locally designated, or judged to be of equivalent value, but are nevertheless valued at a community level.	
Degraded and industrial landscapes. Landscape dominated by commercial development and communications networks.	
Very Low	

### **Nature or Sensitivity of Visual Receptors**

23. As described in the previous section above, the nature or sensitivity of visual receptors is again dependent upon the susceptibility to change of the receptor with respect to the proposed development and on the value attached to the view.
24. These two aspects can include a number of factors such as:
  - a. Location and context of the viewpoint;
  - b. Expectation, occupation or activity of the receptor;
  - c. The value placed on the landscape within which the receptor is located
  - d. The importance of the view (which may be determined with respect to its popularity or numbers of people affected, its appearance in guidebooks, on tourist maps and in the facilities provided for its enjoyment); and
  - e. Whether the receptor is static or transitory and likely speeds they are likely to be travelling in relation to the latter.
25. Those receptors most susceptible to change include local residents, particularly those dwellings that have been designed to maximise views across the surrounding landscape, such as large gardens, patios, conservatories, picture windows etc. Other highly susceptible receptors include users of outdoor recreational facilities including strategic recreational footpaths and cycleways, Open Access Areas and other Rights of Way, where their attention is likely to be focused on the landscape and/or important landscape features with physical, cultural or historic attributes. Users of viewpoints of importance to the setting or enjoyment of residential environments or located at beauty spots or picnic areas may also be highly susceptible to change.
26. Those receptors less likely to be susceptible to change include pedestrians not focused on the landscape or views and people travelling through the landscape on roads, trains or other transport routes.
27. Those receptors considered to have the least susceptible to change include people engaged in outdoor sports or other activity based recreation, or those focused on work activities.
28. Criteria used to determine the degree of susceptibility of visual receptors to change and their perceived value are given below in Tables A-3 and A-4 respectively. NOTE: These scales are generic and therefore capable of being modified by the type of development being assessed, including size, scale and distance.

Table A-3: Criteria used to determine the Susceptibility of Visual Receptor Groups

Receptors		Comments	Susceptibility
<b>Residential Buildings</b>			
Housing/Isolated dwellings/ Farms	Ground Floor/ Upper Floors/ Gardens	Containing windows on ground or upper floors designed to take advantage of specific views, such as living rooms, dining rooms and/or kitchens where people may spend significant periods of waking time. Gardens likely to be used for leisure purposes.	High
<b>Other Buildings</b>			
Schools	Classrooms	Windowsill heights often limit views out of classrooms	Medium
	Grounds/ Playing Fields	Primarily sport orientated but may have views out towards countryside	Medium
Hospitals	Wards	Windowsill heights often limit views out of wards	Medium
	Grounds	Some wards may have windows designed to exploit particular views.	Medium
Places of Worship and Public/ Guest Houses/ Hotels	Ground Floor, Upper Floors, Gardens/ Grounds	Unlikely to be particularly sensitive to off-site views but may include grounds/gardens for outdoor activities and/or enjoyment.	Medium
<b>Commercial Premises</b>			
Industrial Units		Unlikely to be sensitive to off-site views	Very Low
Retail Units and Offices		Unlikely to be overly sensitive to off-site views but may contain aspects where outward looking views are possible.	Low
<b>Transport/ Recreational Routes/ Public Open Space</b>			
Footpaths, Bridleways, Commons and Open Access Areas		Rural paths/bridleways heavily influenced by residential areas and/or major transport routes and/or with limited views used for general recreational access to the open countryside.	Low
		Rural paths/bridleways used for general recreational purposes capable of gaining views across open countryside.	Medium
		Rural paths/bridleways/open access land used for general recreational	High

		purposes capable of gaining elevated views across open countryside or subject to additional levels of designation such as AONBs or NSAs.	
		Rural paths/bridleways/open access land used for general recreational purposes capable of gaining elevated views across open countryside and within promoted landscapes or subject to additional high levels of designation such as NPs.	<b>Very High</b>
<b>Public Open Space- Rivers/ Urban Parks/ Golf Clubs/ Car Parks/ Beaches etc.</b>		Open Space that is primarily used for sporting activities and subject to intermittent use.	<b>Low</b>
		Open Space that is primarily used for sporting activities and subject to continuous daily use.	<b>Medium</b>
		Public Open Space that may have views out towards the open countryside and subject to continuous daily use.	<b>High</b>
<b>Cycleway/ Roads/ Railway</b>	<b>National Cycle Routes</b>	Roads and/or tracks within a rural location and promoted as a national route for the enjoyment of the open countryside and to take in panoramic views	<b>High</b>
	<b>Unclassified/ Minor Roads/ Local Rail Network/ Private Drives</b>	Rural location and relatively slow traffic speeds, possibly in conjunction with greater use by cyclists or walkers may influence sensitivity to visual impacts.	<b>Medium</b>
	<b>Unclassified/ Minor Roads/ main Roads/ Trunk Roads/ Motorways/ High Speed Rail links</b>	Traffic speed and primary use likely to limit sensitivity to visual effects.	<b>Low</b>

**Table A-4: Criteria used to determine the Value of Visual Receptor Groups**

Visual Receptor/ Nature of View	Value
Open and long range views associated with promoted landscapes, public viewpoint associated with heritage assets, coastlines etc. Close range views associated with historical and or townscape settings. Views over designated landscapes and landscapes with international/national cultural associations.	<p><b>Very High</b></p>  <p><b>Very Low</b></p>
Open, generally unrestricted long range views over open countryside, seascapes or open parkland including public open space, open access land and footpaths and/or with local/national cultural associations.	
Partially restricted and/or oblique views over open countryside, seascapes or parkland. Partially restricted or oblique views of open streetscapes, avenues and boulevards and/or with local cultural associations.	
Restricted and/or oblique views over open countryside, seascapes or parkland. Restricted or oblique views of narrow streetscape, truncated views of urban built environments or longer distant views over Industrial/commercial landscapes communications networks etc.	
Very restricted views over open countryside, seascapes or parkland. Restricted views over very degraded rural landscapes and/or close range views of industrial/ commercial landscapes.	

29. As with the Nature of Landscape Receptors described above, an assessment of the Nature or Sensitivity of Visual Receptors was made of both susceptibility and value based on a five point textual scale: Very Low, Low, Medium, High and Very High. This information is then combined to arrive at an overall sensitivity of the receptor as a whole which is also expressed as a five-point textual scale Very Low to Very High. See Table A-5 below.

**Table 5 A-5: Landscape and Visual Receptors: Overall Nature of Receptor (Sensitivity)**

		Value of the Landscape/ Visual Receptor				
		Very High	High	Medium	Low	Very Low
	<b>Very High</b>	Very High	Very High	High	Medium	Medium
	<b>High</b>	Very	High	High	Medium	Medium

<b>Susceptibility of the Landscape/ Visual Receptor.</b>		High				
	<b>Medium</b>	High	High	Medium	Medium	Low
	<b>Low</b>	High	Medium	Medium	Low	Low
	<b>Very Low</b>	Medium	Medium	Low	Low	Very Low

### **Nature or Magnitude of Change**

30. Following an assessment of the nature or sensitivity of the landscape/visual receptor an assessment was made of the nature or magnitude of effects associated with the proposed development. Those elements of the development that may affect landscape character and visual amenity can be defined as occurring during two main stages of the development and can be either associated with direct or indirect effects.
31. Direct and indirect effects on the landscape and visual amenity of an area potentially affected by the development can be defined as comprising:
32. Direct physical changes to the actual fabric of the landscape, including loss or changes to individual elements such as landform, agricultural fields, trees, hedges, ditches, paths etc.
33. Direct or indirect effects caused by the development to the overall character of the landscape and changes to the key characteristics that help define and create the distinctiveness of the local landscape, including aesthetic and/or perceptual aspects.
34. In relation to those elements of the development that may affect landscape character and visual amenity during two main stages of the development occur either:
  - During the operational life of the quarry, including site preparation works and
  - Following progressive and/or final restoration.
35. Differing components of the development will cause differing and varying levels of effect during these two stages of the development.
36. Those components of the development most likely to affect landscape character and visual amenity are identified and an assessment made as to likely interactions between the landscape and visual receptors identified and these components.

37. The level of interaction identified enables an assessment to be made as to the nature, or magnitude of effects associated with those aspects of the development as identified.
38. In relation to Magnitude of effects GVLA 3 at paragraph 5.48 states that Each effect on landscape receptors needs to be assessed in terms of its size or scale, the geographical extent of the area influenced, and its duration and reversibility.
39. The assessments in relation to Size/Scale is expressed in terms of Neutral or Very Small or Small or Medium or Large or Very Large; Geographical Extent is expressed in terms of Neutral or Very Small or Small or Medium or Large or Very Large; Duration is expressed as either Short or Medium or Long or Permanent; and Reversibility is expressed as either Fully or Partially or Permanent.
40. These results were then combined to arrive at an evaluation of the overall nature or magnitude of effects on individual receptors or character areas/types. The effects were considered according to whether they were adverse, neutral or beneficial. These effects were again based on a five point textual scale: Very Low, Low, Medium, High and Very High.
41. The criteria for this overall assessment are detailed in Table A-6 below:

Table A-6: Nature of Effects (Magnitude) on Landscape Receptors

Summary of Effect	Criteria
<p>Very High Adverse</p> 	<p>The proposed site is very damaging to the landscape in that:</p> <ul style="list-style-type: none"> <li>• At considerable variance with the landform, scale and pattern of the landscape.</li> <li>• It is likely to degrade, diminish, or even destroy the integrity of a range of characteristic features and elements and their setting.</li> <li>• It is substantially damaging to a high quality or highly vulnerable landscape, causing it to change and be considerably diminished in quality. Likely to be in a High sensitive landscape.</li> <li>• It is unable to be mitigated.</li> <li>• It is in serious conflict with policy in respect to enhancing landscape character and set out in current or emerging LDP's.</li> <li>• Very High Adverse</li> <li>• The cumulative operations of other developments results in an unacceptable loss or detriment to character.</li> <li>• It is adverse to several of the key issues/priorities or strategies for the LCA.</li> </ul>
	<p>The proposed site is damaging to the landscape in that:</p> <ul style="list-style-type: none"> <li>• At variance with the landform, scale and pattern of the landscape.</li> <li>• It is likely to degrade or diminish the integrity of a range of characteristic features and elements and their setting.</li> <li>• It is damaging to a high quality or highly vulnerable landscape, causing it to change and be diminished in quality. Likely to be in a High</li> </ul>

 <p>Very low Adverse</p>	<p>sensitive landscape.</p> <ul style="list-style-type: none"> <li>• It is unable to be adequately mitigated.</li> <li>• It is in conflict with policy in respect to enhancing landscape character and set out in current or emerging LDP's.</li> <li>• The cumulative operations of other proposed sites results in a substantial loss or detriment to character.</li> <li>• It is adverse to some of the key issues/priorities or strategies for the LCA.</li> </ul>
	<p>The site is out of scale with the landscape, or at odds with the local pattern and landform in that:</p> <ul style="list-style-type: none"> <li>• Probably not possible to fully mitigate for, that is mitigation will not prevent the scheme from scarring the landscape in the longer term as some features of interest will be partly destroyed or their setting reduced or removed. Likely to be in a High or Medium sensitive landscape.</li> <li>• In conflict with policy to respect and enhance landscape character across a range of character themes, or current or emerging LDP's.</li> <li>• The potential cumulative operations of other proposed sites results in a moderate loss or detriment to character.</li> <li>• Adverse to a few (at least 2) of the issues/priorities or strategies for the LCA.</li> <li>•</li> </ul>
	<p>The site does not fit the landform and scale of the landscape in that:</p> <ul style="list-style-type: none"> <li>• The proposal can probably not be completely mitigated for because of the nature of the proposal itself or the character of the landscape it is in. Likely to be in a High or Medium sensitive landscape.</li> <li>• In conflict with policy to respect and enhance landscape character across few character themes and set out in current or emerging LDP's.</li> <li>• There is a potential of some cumulative impacts of other proposed sites.</li> <li>• At variance with some aspects of the LCA descriptions.</li> </ul>
	<p>The site does not quite fit the landform and scale of the landscape in that:</p> <ul style="list-style-type: none"> <li>• The proposal can almost be completely mitigated for because of the nature of the proposal itself or the character of the landscape it is in. Likely to be in a Medium or Low sensitivity landscape.</li> <li>• In partial conflict with policy to respect and enhance landscape character across few character themes and set out in current or emerging LDP's.</li> <li>• There is a very slight potential of cumulative operations of other proposed sites.</li> <li>• At variance with some minor aspects of the LCA descriptions.</li> </ul>
<p>Neutral Effect</p>	<p>The proposal is likely to be able to complement and fit the scale, landform and pattern of the landscape in that:</p>

	<ul style="list-style-type: none"> <li>• Mitigation measures are likely to ensure that the scheme will blend in well with surrounding landscape character components.</li> <li>• Will probably maintain existing landscape character with specific planning conditions and in a Medium to Low sensitivity landscape.</li> <li>• Likely to be in a degraded landscape or one with a restoration objective (identified in LCA assessments).</li> <li>• Likely to be an isolated, or small site with no cumulative effect from neighbouring operations.</li> </ul>
<p><b>Very Low Beneficial</b></p>   <p><b>High Beneficial</b></p>	<p>The proposal will probably fit in the landform, pattern and historical use of the area.</p> <ul style="list-style-type: none"> <li>• By incorporating measures for mitigation, it will ensure that landscape character is marginally enhanced and improved, such as habitat creation, restoration of previously degraded landscape. Likely to be in a Medium or Low Sensitivity Landscape.</li> <li>• Could partially incorporate policy to enhance landscape character (on restoration) as set out in current or emerging LDP's.</li> <li>• Likely to be isolated or small site with no likely cumulative effect from neighbouring operations.</li> </ul>
	<p>The proposal will probably fit well in the landform, pattern and historical use of the area.</p> <ul style="list-style-type: none"> <li>• By incorporating measures for mitigation, it will ensure that landscape character is enhanced and improved, such as habitat creation, restoration of previously degraded landscape. Likely to be in a Medium or Low Sensitivity Landscape.</li> <li>• Could incorporate policy to enhance landscape character (on restoration) as set out in current or emerging LDP's.</li> <li>• Likely to be isolated or relatively small site with no cumulative effect from neighbouring operations.</li> </ul>
	<p>The proposal will fit well in the landform, pattern and historical use of the area.</p> <ul style="list-style-type: none"> <li>• By incorporating measures for mitigation, it will ensure that landscape character is materially enhanced and improved, such as habitat creation, restoration of previously very degraded landscape. Likely to be in a Medium Sensitivity Landscape.</li> <li>• Incorporates a wide range of policies to enhance landscape character (on restoration) as set out in current or emerging LDP's.</li> <li>• Likely to be an isolated or small site with no cumulative effect from neighbouring operations.</li> </ul>
	<p>The proposal will fit well in the landform, pattern and historical use of the area.</p> <ul style="list-style-type: none"> <li>• By incorporating measures for mitigation, it will ensure that landscape character is materially enhanced and improved, such as habitat creation, restoration of previously very degraded landscape. Likely to be in a High Sensitivity Landscape.</li> <li>• Incorporates a wide range of policies to enhance landscape character (on restoration) as set out in current or emerging LDP's.</li> </ul>

	<ul style="list-style-type: none"> <li>Likely to be an isolated or small site with no cumulative effect from neighbouring operations.</li> </ul>
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### Nature of Effects (Magnitude) on Visual Receptors

42. The magnitude of effects in relation to identified visual receptors was determined according to the criteria set out in Table A-7 below.

**Table A-7: Nature of Effects (Magnitude) on Visual Receptors: Definitions**

Adverse			Neutral	Beneficial	
Very High/High	Medium/Low	Very Low/Minor	Neutral	Very Low/Low	Medium/High
Permanent alteration of key elements such that it significantly and detrimentally affects local or wider character or amenity. Views are open, from close proximity and detrimentally affected in a pronounced or very pronounced manner. Forms a significant or very significant element in the landscape.	Permanent (or long term) or temporary change in a key element or permanent change in less important element, creating negative effects on character or amenity. Detrimental views are partially screened and/or viewed as part of the wider landscape.	Permanent (or long term) or temporary change of minor element, causing a minor or very minor negative alteration in character or amenity. Detrimental views are screened and/or are at oblique angles and/or at a great distance.	No perceived change in character or amenity or changes are not perceived to be either adverse or beneficial in nature	Permanent or temporary alteration of minor element, causing a minor improvement in local character or amenity. Views are improved but screened and/or are at oblique angles.	Permanent or temporary change in a key element or permanent change in less important element, noticeably improving local character or amenity. Views are improved but partially screened and/or viewed as part of the wider landscape.

### Mitigation of Landscape and Visual Effects

43. GLVA 3 at paragraph 4.21 states that In accordance with the EIA Regulations, measures proposed to prevent/avoid, reduce and where possible offset or remedy (or compensate for) any significant adverse landscape and visual effects should be

described. In practice, such mitigation measures are now generally considered to fall into three categories:

- a. Primary measures, developed through the iterative design process, which have become integrated or embedded into the project design;
  - b. Standard construction and operational management practices for avoiding and reducing environmental effects;
  - c. Secondary measures, designed to address any residual adverse effects remaining after primary measures and standard construction practices have been incorporated into the scheme.
44. The scheme as proposed generally incorporates primary measures which have been incorporated as an integral part of design process. Secondary measures include additional landscape enhancement including extensive tree/hedgerow planting/infilling works to be undertaken within adjacent land that seeks to integrate the restoration of the site into the surrounding landscape.

**Significance of Residual Effects**

45. Following the assessment of the Nature of Effect (Magnitude) an assessment of the Overall Significance of Effects was carried out by combining the level of the Nature of Effect with the assessed values of the Nature of Receptor (Sensitivity) present. This is presented in the form of a matrix table (see Table A-8). The table was used to provide an indication of the level of the Overall Significance of Effects resulting from the development in relation to the localities landscape character or visual amenity. The effects were considered according to whether they were adverse, neutral or beneficial.

Table A-8: Significance of Impacts: Correlation of Nature of Effect with Nature of Landscape or Visual Receptors

			NATURE of the Landscape/ Visual Receptor (Sensitivity)				
			Very High	High	Medium	Low	Very Low
NATURE OF Effect (magnitude)	Adverse	Very High	Severe	Major	Notable	Notable / Moderate	Moderate
		High	Major	Notable	Notable / Moderate	Moderate	Slight
		Medium	Notable	Notable / Moderate	Moderate	Slight	Very Slight
		Low	Notable / Moderate	Moderate	Slight	Very Slight	Minimal
		Very Low	Moderate	Slight	Very Slight	Minimal	Negligible

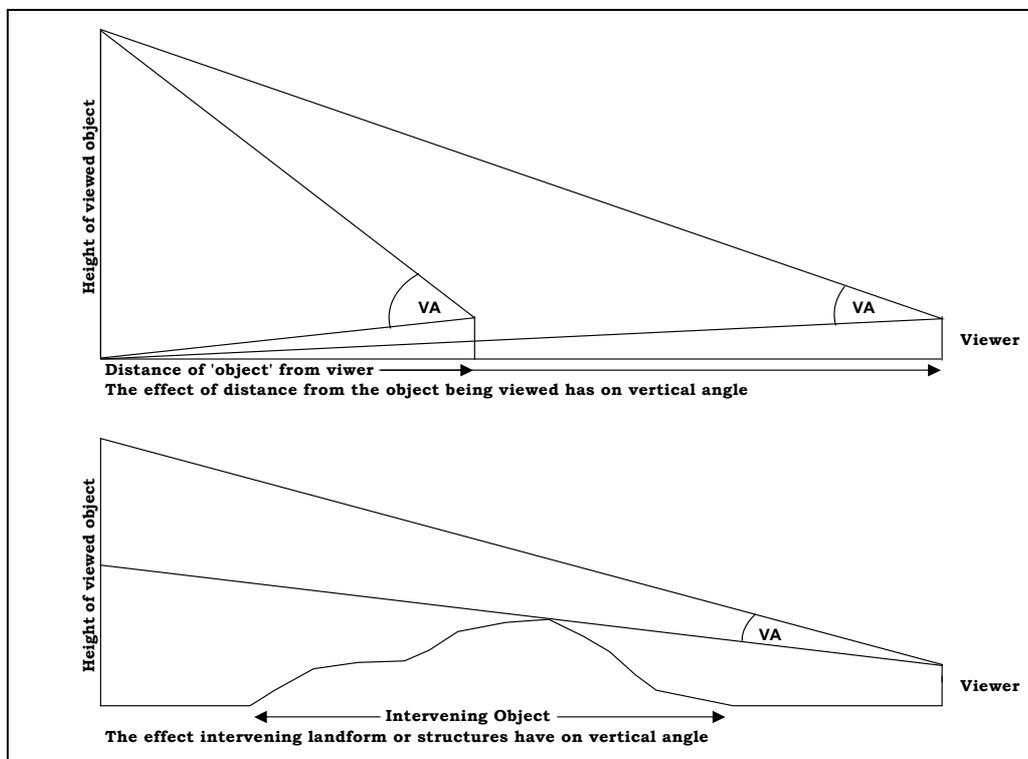
	Neutral	<b>Neutral</b>	Neutral	Neutral	Neutral	Neutral	Neutral
	Beneficial	<b>Very Low</b>	Moderate	Slight	Very Slight	Minimal	Negligible
		<b>Low</b>	Notable	Moderate	Slight	Very Slight	Minimal
		<b>Medium</b>	Substantial	Notable	Moderate	Slight	Very Slight
		<b>High</b>	Major	Substantial	Notable	Moderate	Slight

46. The above matrix is not used as a prescriptive tool and the methodology and analysis of potential effects at any particular location must allow for the exercise of professional judgement. Thus, in some instances a particular parameter may be considered as having a determining effect on the analysis.
47. Where the landscape or visual impact has been classified as notable and above, this is considered to be equivalent to a significant effect as referred to in the Environmental Impact Assessment (Scotland) Regulations 2011.

#### **Zone of Theoretical Visibility**

48. Computer based studies were used to establish the site's potential visual envelope. These studies used both Ordnance Survey 3D Terrain 5 Digital Terrain Modelling (DTM) data, as well as Getmapping 2m Aerial Photograph Derived Digital Surface Modelling (DSM) data. The former dataset shows in 3D the physical landform without any built structures or vegetation, based on a 10m grid of levels. The latter dataset shows in 3D all topographic features present within the landscape, including individual trees and woodland blocks, buildings, road and railway embankments and cuttings based on a 2m grid of levels.

49. Computer models used specialised software (LSS, McCarthy Taylor Systems Ltd) to generate digital models of the landform to determine the site's Zones of Theoretical Visibility (ZTV), based on mathematically generated vertical angles of view. Both landform only (DTM) and surface modelling (DSM) data was used to ascertain both the landform only ZTV, as well as modelling the surface ZTV based on existing topographic features to highlight those elements that generally obscure views where they intervene between the viewer and the viewed object. The former ZTV therefore shows a maximum effect scenario, with many of the predicted views, particularly low lying distant ones, not likely to be present. The latter ZTV therefore shows an 'actual' zone of visibility likely to be experienced by the surrounding visual receptors.
50. The computer study helps to objectively define the magnitude of visual effects the proposed development might have, by linking potential impact to the vertical angle subtended at the viewpoint by the top and bottom extremities of the object that is viewable, from which a 'contour' model is generated. This gives a visual measure of how much of a given vertical field of view is occupied by the object when viewed from different locations. This method automatically takes into account effects of distance from the site (i.e. an object close to the viewer occupies a greater vertical angle [field of view] than a feature further away). Where a zero value is returned, the viewpoint lies outside or on the edge of the Visual Envelope, delineating the areas from which views are not thought to be possible (uncoloured).
51. Figure A.1: A Diagram to Illustrate Vertical Angles



52. The following table shows how vertical angles of viewed objects relate to a person's vertical field of view and the potential for an object to impact on the viewer. This table shows the mathematical relationship between a 12 metre high object, its distance from the viewer and the vertical angle it would subtend compared to the main vertical field of view of the viewer.

Table A-9: Mathematical Table to Show the Vertical Angle a 12 metre High Object Would Visually Subtend at Various Distances

Distance from viewer of 12m high object	Vertical Angle Subtended (Total Field of View = @ 90 °)
10.0 Km	0.07 °
6.8 Km	0.1°
3.5 Km	0.2°
2.3 Km	0.3°
1.0 Km	0.7°
0.7 Km	1.0°
0.5 Km	1.4°
0.2 Km	3.0°
0.1 Km	6.8°

53. Based on experience, photographic studies and the mathematical table, certain 'contour' values were assessed as potentially indicating differences in magnitude of effect. A classification system using six 'contour' values was used to relate vertical angles to levels of magnitude. These classifications were used to inform the assessment process to help distinguish possible differences in magnitudes of effect from various locations within the Study Area - those where the angle of view subtended the largest angle being likely to receive the highest magnitudes of effect. Conversely, those where the angle of view subtended the smallest angle being likely to receive the lowest magnitudes of effect.