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INTRODUCTION

- 6.1 This chapter sets out an assessment of the potential landscape and visual effects of the proposed development of the quarry extension at Carlton Main Brickworks. Chapter 3 the Environmental Statement describes the development proposal in more detail and should be read in conjunction with this chapter.
- 6.2 This chapter is divided into the following sections:
- Introduction (Scope, Definitions and Methodology and Consultations);
 - Landscape Planning Context;
 - The Development Proposal;
 - Landscape Effects;
 - Visual Effects; and
 - Conclusions.

Scope and Definitions

- 6.3 Paragraph 1.1 of the Guidelines for Landscape and Visual Impact Assessment (3rd Edition) published by Landscape Institute and Institute of Environmental Management and Assessment (hereafter referred to as “GLVIA 3”) states that *“Landscape and Visual Impact Assessment (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”*.
- 6.4 Paragraph 5.1 of GLVIA3 describes how landscape effects are concerned with *“how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character”*.
- 6.5 Allied to this, paragraph 6.1 of GLVIA3 describes how visual effects are concerned with *“assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements”*.
- 6.6 This assessment considers landscape and visual effects separately, although where relevant and appropriate, cross references may be made to the same features or elements.

Methodology

- 6.7 The main source of guidance for this chapter has been GLVIA3 (op. cit.) and the method used in assessing landscape and visual effects is set out in **Appendix 6/1**.
- 6.8 Paragraph 3.23 of GLVIA3 describes how *“The EIA Directive and UK Regulations refer to projects likely to have significant effects on the environment. This means that identifying and describing the effects of a project is not enough in itself. They must also be assessed for their significance. This is a key part of the LVIA process and is an evidence-based process combined with professional judgement. It is important that the basis of such judgements is transparent and understandable, so that the underlying assumptions and reasoning can be understood by others.”*

- 6.9 “Major Effects” and “Moderate / Major Effects” identified in this chapter are regarded as “significant” in the context of the EIA Regulations.
- 6.10 The determination of significant effects follows the step-by-step process shown in Figure 3.5 of GLVIA3 and is based on the combination of the sensitivity of the receptor (susceptibility to type of change proposed and value) and the magnitude of effect (size/scale, geographical extent, duration and reversibility).
- 6.11 The nature of effects are also described, including:
- adverse or negative effects, relating to the loss, deterioration or reduction of baseline landscape and visual conditions;
 - beneficial or positive effects relating to the addition, enhancement or enlargement of baseline landscape and visual conditions (or by virtue of good design); and
 - neutral effects include those changes which are neither adverse nor beneficial, or where it is judged that there is a balance between adverse and beneficial (e.g. the proposal fits with existing character).
- 6.12 Mitigation measures, which are proposed to prevent, reduce and where possible offset any significant ‘adverse’ landscape and visual effects are also taken into account in the consideration of overall effects.
- 6.13 The Landscape Institute Technical Guidance Note 06/19 Visual Representation of Development (hereafter referred to as “LI TGN 06/19”) has also been referenced in this assessment as it sets out the basic types of visualisation that can be produced to support pre-application discussions and/or planning applications.
- 6.14 The Landscape Institute Technical Guidance Note 02/21 Assessing Landscape Value outside *National Designations* (hereafter referred to as “LI TGN 02/21”) has also been referenced in relation to the landscape value of the site and study area.
- 6.15 Initially a desktop study was undertaken to review the relevant publications, maps and plans relating to the area within which the proposed development would occur. This was followed by fieldwork at the application site and the surrounding 3km study area (based on desk and field-based findings) in September 2020. During the site visits, the weather conditions were suitable for assessing all views for this assessment.
- 6.16 Use has been made of 3D computer models to generate Zone of Theoretical Visibility (‘ZTV’) maps of the development (as described in **Appendix 6/4**), to support the identification of representative viewpoints.
- 6.17 “Type 1” annotated baseline photography is included to show the extent or position of the site and other existing features and to act as an aid in assessing landscape and visual effects (as defined in LI TGN 06/19). Photographs were taken using a Nikon D70 digital camera and tripod. The camera was set to a focal length which is the equivalent of a 50mm lens for a 35mm format camera. The panoramic views consist of several photographic frames digitally merged using industry standard software.
- 6.18 Visual effects vary depending on light and weather conditions and also the time of day and time of year. Accordingly, this assessment takes account of the conditions in the photographs, but also considers alternative conditions, where relevant.
- 6.19 No technical difficulties were encountered in assessing the landscape and visual impacts of the proposed development.

LANDSCAPE PLANNING

Landscape Planning Context

- 6.20 Details of the relevant planning policy context are contained in the Planning Statement that accompanies the planning application; In addition Chapter 5 in the ES also provides a summary of relevant planning policies. The relevant landscape-related policies are also set out in **Appendix 6/2** of this chapter. These include policies within the National Planning Policy Framework (NPPF) and Planning Practice Guidance (in particular the section relating to Minerals) and the local development plan, comprising of the Barnsley Local Plan.
- 6.21 The NPPF requires that planning policies and decisions ensure development is sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change and protecting and enhancing valued landscapes, recognising the intrinsic character and beauty of the countryside.
- 6.22 The NPPF also indicates that the Government attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence.
- 6.23 The application site is not located within or close to any national landscape designation, such as a National Park or Area of Outstanding Natural Beauty. It is though located within Green Belt.
- 6.24 Barnsley Local Plan includes policies relating to the future development of Barnsley up to the year 2033, including High Quality Design, Place Making and Landscape Character. Carlton Main Brick Works is allocated as an existing site with planning permission for the extraction of minerals (Policy MIN1) and there is an allocated Area of Search for new minerals on land to the south and east (Site MINAS1), which includes the proposed extension area.
- 6.25 The proposed extension area is also designated as Green Space (parks and open spaces, play areas, sports pitches, local natural areas and cemeteries) and there is a Green Way identified along the bridleway which is located to the east of the existing site and proposed extension area. Part of the site is covered by the Carlton Main SSSI designation, due to the Coal Measures strata exposed by the extraction of clay.

Planning Permissions

- 6.26 The planning history for the existing brick clay quarry is described in the Planning Statement that accompanies the planning application. The existing planning permission granted in 2003 includes the restoration of the quarry with phased infilling with non-hazardous wastes and subsequent restoration. A landscape restoration plan and aftercare scheme submitted pursuant to conditions 21 and 30 were discharged in 2011 and showed a combination of woodland planting, amenity grassland and acid grassland.

THE DEVELOPMENT PROPOSAL

Introduction

- 6.27 Full details of the proposed development are described in Chapter 3 within the Environmental Statement.

- 6.28 The following items have been examined in detail due to their specific landscape and visual implications:
- vegetation clearance, site preparation and phased working of a southern extension to the active brick clay quarry into an additional area of around 3.5ha;
 - adjustment to the existing palisade security fence to enclose the extension area (700 linear metres) and new areas of advance tree and shrub planting (over 200 linear metres) to infill gaps and provide a belt of screening vegetation;
 - alteration of the approved phasing to incorporate the proposed extension area mid-way through the overall scheme of working (cleared of vegetation and stripped of soils in Phase 2 and worked out in Phase 3);
 - alteration of the approved final restoration scheme for the existing 24.1ha operational brick clay quarry, with a reduction in the volumes of imported waste and consequential lower-level final landform, retained steep slopes, rock faces and benches and the incorporation of the additional area of worked land to the south (the extension area) and peripheral areas of habitat (2.7ha);
 - restoration to a mix of habitats, similar to the approved scheme but to provided biodiversity net gains ('BNG'), with woodland (7.7ha proposed and 1ha existing retained), species-rich acid grassland (2.7ha proposed and 1.7ha existing retained), and the addition of open mosaic (9.1ha), rock faces and benches (4.7ha), waterbody (0.8ha and reedbed (0.2ha); and
 - continued use of the 2.4ha brickmaking raw materials stockpiling areas to the west of the site both during working and after the final restoration of the quarry.

Timescales and Permanency of Development

- 6.29 The proposed extension area would be worked in conjunction with the remaining reserves in the existing brick clay quarry void, over a total period up to the expiry of the planning permission in 2043. The working of the extension area itself would last c.6 years depending on the blending of available brick-making materials. It should be noted that at this stage no application is being made to extend the operations beyond 2043.
- 6.30 GLVIA3 refers to effects that last for less than 5 years as short-term, 5 to 10 years as medium term and those that last for 10 to 25 years as long-term.
- 6.31 In view of this, the existing operations are already a long-term feature, with a medium to long-term extension to the operational phases. Final restoration would then be permanent.
- 6.32 The progressive nature of the development means that certain effects would be much more limited in duration, such as the construction of the fence, vegetation clearance and stripping of the extension area, as well as working within individual phases or benches. In visual terms this means, for example that certain potential views of working the more exposed upper benches may only take place on a short-term basis, with the remainder of the time being spent working the deeper benches which are more concealed from views.
- 6.33 The operations on site would continue to follow the approved operating hours.

Design Development and Built-in Mitigation

- 6.34 The development proposals seek to mitigate any potentially adverse landscape and visual effects, either by avoidance, reduction or replacement / compensation; this is often referred to as the mitigation hierarchy.
- 6.35 The web-based Planning Policy Guidance requires any new minerals site or any significant extension to an existing mineral working to include a landscape strategy.
- 6.36 The approach to design development and built-in mitigation developed as part of the landscape strategy is summarised below:
- key landscape opportunities relate to the development being a small scale extension of an existing mineral working and therefore the character of the wider local area is generally able to accommodate the proposed development without undue negative consequences to the baseline situation (relative to a greenfield site). The extension area forms part of an area of land previously disturbed by a colliery, which has since been restored and landscaped (and is therefore a simple landcover and lacks any mature trees or other features);
 - key constraints include restriction of access to part of the restored colliery land / Green Space and potential views of additional quarry workings for local recreational visitors (in the context of the existing quarry / restored land);
 - advance tree and shrub infill gap / planting around the extension area boundaries and part of the existing site to help minimise visual exposure to recreational visitors / users of the footpaths; and
 - the character of the restored landscape would consist of an enlarged quarry void with additional sections of New Coal Measures strata to be exposed, in conjunction with mixed woodland, conservation grassland and wetland. Afteruses would focus on nature conservation and recreational, as per the approved scheme. This would relate well to the broader character of the area. The brickmaking raw materials stockpile area in the west of the site would be retained, as per the approved scheme.

Potential Sources of Landscape and Visual Effect

- 6.37 In addition to the existing elements and features on the site, the current condition of the existing operational areas and remaining future working phases (deepening) within the approved limits form part of the baseline for this assessment, along with the approved landfilling and final restoration scheme which is in turn considered as part of the baseline for the restoration phase.
- 6.38 The main landscape and visual components of the proposed development include:
- management of perimeter vegetation (to be retained) and new areas of advance tree and shrub planting;
 - vegetation clearance, including areas of recent native tree plantations and amenity grassland on the restored colliery land. Temporary closure / diversion of trails and tracks;
 - re-alignment of palisade security fencing and site preparation of voids and ramps, soil and overburden stripping, construction and operation of extraction phases, with associated materials and plant (including stocking areas and vehicle movements);
 - formation of landforms (heaps and mounds);

- the continued supply of brickmaking raw materials to the factory adjacent to the west of the quarry site. Retention of the stockpile area as part of the restoration scheme; and
- progressive and final restoration of the quarry voids and upper slopes. Establishment of nature conservation and recreational after-uses, with woodland, conservation grassland and wetland, including reinstatement of tracks and trails.

6.39 These components would result in direct effects upon landscape elements and features within the application site. The above changes would also influence the application site's appearance, aesthetic and perceptual aspects and therefore may also have potential effects on landscape character and the visual amenity of offsite receptors in the immediately surrounding area. The spatial extent of landscape and visual effects of this proposal are principally local.

Potential Indirect Effects

6.40 The main indirect effects would typically relate to traffic generated by the development. However in this case, as all extracted raw material will be provided to the adjacent brickworks via internal roads and there would be no changes to the existing traffic movements along the public highway.

LANDSCAPE EFFECTS

Introduction

6.41 As a result of the findings of the ZTV analysis, knowledge of the local landscape, and experience of similar projects, a study area of up to 3km from the application site boundary has been adopted for this assessment.

Landscape Baseline

6.42 Baseline conditions for the application site and surrounding study area have been assessed and described below.

Character of the Landscape

6.43 **Appendix 6/3** includes reference to the published national and local level landscape character assessments which are of relevance to the application site and surrounding area.

6.44 At a national level the application site is within the central part of National Character Area (NCA) 38 "Nottinghamshire, Derbyshire and Yorkshire Coalfield", an area that is described as having seen great change over the past few centuries from widespread industrialisation and development. A generally low-lying area, with hills and escarpments above wide valleys, the landscape embraces major industrial towns and cities as well as villages and countryside.

6.45 At a more local level, the landscape character assessment (LCA) for the Dearne Valley Green Heart Landscape Partnership (Fiona Fyfe Associated, February 2012) identified the site as located within the "Wooded Coalfield Farmland" Landscape Character Type (LCT).

Summary of Landscape Attributes of Site and Immediate Surroundings

6.46 **Drawing CM 6/1** shows a recent aerial photograph of the landcover within the application site and adjacent areas and **Appendix 6/3** includes a summary of landscape attributes of the study area.

- 6.47 The existing brick clay quarry site is a large established void with brickmaking raw materials stockpiling areas, soil storage and landfill. Contours within the site range from 26m AOD in the quarry floor to 76m AOD around the quarry rim to the north-east and 48m AOD to the south-west.
- 6.48 The proposed extension area lies to the south of the existing brick clay quarry and includes previously disturbed colliery land which has since been restored to a mosaic of grassland and trees, with tracks and trails as part of the 56ha New Park Springs country park. The extension area slopes from 66m AOD in the west down to 52m AOD in the east.
- 6.49 The following elements are located around the boundaries of the extension area:
- A belt of mature trees, with a footpath forms the eastern boundary, with post and wire fencing in places. Elevations vary between 66m - 60m AOD, north to south;
 - mosaic of grassland and relatively recent tree growth on the previously worked colliery land along the southern boundary, sloping from 60m – 57m AOD;
 - mosaic of grassland and relatively recent tree growth on the previously worked colliery land along the western boundary, sloping from 57m – 52m AOD; and
 - palisade security fence along the edge of the existing brick clay quarry forms the northern boundary, with bare ground beyond.
- 6.50 Large areas of native woodland have already been planted and/or are regenerating around New Park Springs country park and a wind farm has also been installed on part of this land. The area is popular with recreational visitors (walkers and cyclists, etc).
- 6.51 The existing quarry provides raw materials for the brickworks, which is situated on 3.2ha of land adjacent to the west. There are additional commercial and industrial units further to the west and north-west. To the north is the settlement of Grimethorpe, with allotments, school and cemetery on its southern edge.

Aesthetic and Perceptual Aspects

- 6.52 The aesthetic qualities of the application site and local area are summarised in **Appendix 6/3**, being divided into the main categories identified within recognised guidance¹.
- 6.53 The existing operational brick clay quarry (and ancillary development) is large-scale, enclosed by landform, woodland / tree belts and built development, whilst the extension area forms part of the large-scale country park (on the restored colliery), enclosed by landform and mature and establishing native woodland / tree belts. Being on the west sloping valley side, the site is more open to the west and visible from rising ground on the opposite side of the valley. The traffic along the A6195 road corridor in conjunction with the operational quarry and adjacent industrial and commercial areas provide noise and reduces tranquillity around the extension area, at certain times. The land cover of the restored colliery is generally simple and of muted greens and browns, whilst the operational quarry is more complex, albeit with earthy colours of the benches, slopes and stockpiles.
- 6.54 Following final restoration, the landfilled quarry would consist of a gently sloping, simple mosaic of grassland and woodland habitats (from 75m AOD in the north-east to 45m AOD in the west). The

¹ Landscape Character Assessment – Countryside Agency and Scottish Natural Heritage (2002) – Paragraph 5.12

existing brick-making raw materials stockpiles area would continue during and after restoration (presumably utilising imported clays once the quarry is exhausted).

Classification of the Existing Site and Immediate Surroundings

- 6.55 The analysis of existing landscape attributes has concluded that the study area is generally consistent with the key characteristics in the various aforementioned published assessments and in particular the Dearne Valley's "Wooded Coalfield Farmland" LCT.
- 6.56 At a local level, the application site is classified as "Operational Brick Clay Quarry with Ancillary Stockpiles" with the extension area as "Sloping Amenity Grassland and Woodland Mosaic".
- 6.57 Following final restoration in accordance with the approved scheme, it is anticipated that the local classification of the entire site would become "Sloping Amenity Grassland and Woodland Mosaic".

Trends and Change

- 6.58 The description of Forces for Change within "Wooded Coalfield Farmland" LCT included reference to the following:
- *Past loss/ damage to woodland through quarrying, mining, tipping, clearance for agriculture etc; and*
 - *Potential demand of former quarries for landfill.*

Landscape value

- 6.59 As noted above, the application site does not form part of any national valued landscape designation, such as a National Park or Area of Outstanding Natural Beauty (AONB). However, it is located within Green Belt and an area of Green Space in the Barnsley Local Plan (which recognises amenity, recreation, wildlife or biodiversity value of parks and open spaces, play areas, sports pitches, local natural areas and cemeteries). The Barnsley Local Plan also identifies it as within an Area of Search for New Minerals. Part of the existing quarry is a SSSI due to the geological interest of the Coal Measures strata previously exposed by the extraction of clay.
- 6.60 Table 6-1 below provides further summary analysis of the criteria and factors that influence landscape value (taken from GLVIA3, Box 5.1 op. cit.), as they apply to the site and wider study area.
- 6.61 The landscape value of the active mineral extraction and ancillary development is currently low; there are no landscape designations or demonstrable physical attributes that elevate its value, the landscape is in poor/weak condition and is fundamentally altered by the activities and presence of man-made structures and workings. However, landscape value is anticipated to rise to community level as the approved restoration scheme is implemented.
- 6.62 The landscape value of the proposed extension area is community level; there are no landscape designations, but the land is within the Green Belt and an area of Green Space (recreational policy) and Area of Search for New Minerals in the Local Plan. The restored colliery is developing to moderate condition, albeit adjacent to an active quarry, with signs of urban fringe pressures (litter, vandalism, etc).
- 6.63 The wider "Wooded Coalfield Farmland" LCT is considered to be of a generally medium value / local authority level, but with variation at more local scales (for example with varying degrees of landscape and scenic quality, on higher ground, as well as recreational and conservation interests, tree cover, ancient woodland and visible historic features).

Table 6-1
Analysis of Factors Influencing Landscape Value

Landscape Element	Description
Natural Heritage	Part of the active quarry is designated as a Site of Special Scientific Interest (SSSI) due to its geological interest. The site is not covered by any ecological designations. The wider 'Wooded Coalfield Farmland' LCT is recognised for its <i>"Rolling landform containing steeper slopes"</i> and <i>"Extensive tree cover and large woodland blocks"</i>.
Cultural Heritage	The site is not covered by any cultural heritage designations and has limited historical or cultural interest which contributes positively to the landscape. However the memorial at the crest of the restored spoil tip provides some interpretation of the history of mining at the site. The wider "Wooded Coalfield Farmland" LCT describes how <i>"Despite later mining developments, many historic landscape features remain"</i> and is <i>"An historic landscape with a strong sense of time-depth"</i>. The nearest Listed Building is c1km away at Bridge Farm on the eastern edge of Grimethorpe and Hall Steads is a scheduled monument at 1km to the north-east.
Landscape Condition	The areas of active mineral extraction and ancillary development are of poor landscape quality and condition, although once restored this would be replaced with sloping grassland and woodland. The brick-making raw materials stockpile areas will continue as industrial use after the remainder of the site is restored. The mosaic of grassland and native trees on the New Park Spring country park to the south is developing to be of moderate landscape quality but influenced by the adjacent quarry and with signs of urban fringe pressures (litter and vandalism). The landscape condition of the wider "Wooded Coalfield Farmland" LCT varies with reference to <i>"Extensive tree cover and large woodland blocks"</i>, <i>"Historic features visible within the landscape include ancient woodlands, commons and fields"</i> and how <i>"More recent colliery restorations have added to the woodland cover, providing further variation in the landscape"</i>.
Associations	The film <i>Brassed Off</i> was based on the Grimethorpe Colliery, which extended over the now restored areas of New Park Springs and Cudworth Common country parks. No other evidence of artistic or literary associations with the application site or immediately surrounding study area has been noted as part of this assessment.
Distinctiveness	The mosaic of restored amenity grassland and young native trees / woodland within the extension area are not considered to be rare or distinctive, with a relatively weak sense of identity.
Recreational	There is no public access currently to the active quarry, although the approved restoration scheme includes a network of footpaths connecting to public rights of way. The extension area is part of New Park Springs country park and an area of Green Space (recreational value) in the Barnsley Local Plan, with several tracks and trails.
Perceptual (Scenic)	The operational mineral workings have a low scenic quality, although once restored this will increase to moderate as the grassland and woodland slopes will be more appealing to the senses. The ancillary development to the west is also of low scenic quality and will continue as stockpiling after restoration. The restored colliery, grassland and developing woodland around New Park Springs are of medium scenic quality. The mature woodland and trees on the higher ground to the east

Landscape Element	Description
	of the site feature on the skyline of many views. Extensive panoramic views are obtained from higher points on either side of the valley, although the scene is of a settled and in places industrialised landscape.
Perceptual (Wildness and Tranquillity)	The operational mineral workings and ancillary development have busy movements, to varying degrees from vehicles and plant, during working hours. Once restored the majority of the site will be less busy and more tranquil, albeit with potential stockpiling to continue on land to the west. The extension area and New Park Springs has its tranquillity and remoteness affected by the adjacent quarry, busy A6196 road corridor and commercial and industrial area. The perceptual and special qualities section of Wooded Coalfield Farmland LCT refers to how the <i>“Despite the presence of settlement and transport routes, much of the landscape feels remote and tranquil, particularly in the south”</i>.
Functional	The extension area is part of an Area of Search for Minerals, as well as an area of designated Green Space (recreational function) in the Local Plan. It is also located within Green Belt, which is spatial function.

Prediction of landscape effects

- 6.64 As described in paragraph 5.34 of GLVIA3, landscape receptors that may be affected by the scheme include the overall character and key characteristics, individual elements or features and specific aesthetic or perceptual aspects.
- 6.65 Landscape effects can occur during the initial site and vegetation clearance, soil and overburden stripping, and extraction works, but also following restoration.
- 6.66 The assessment of significance of residual landscape effects is carried out for each effect thought likely to occur and for the relevant receptor that may be altered by the scheme.

Criteria

- 6.67 The criteria for assessing the significance of residual landscape effects (i.e. after built-in mitigation) are described in GLVIA3 and set out in **Appendix 6/1**. They are based on the combination of sensitivity (susceptibility of the receptor to the change proposed and the value attached to the receptor) and magnitude of change (size and scale, geographical extent and duration and reversibility).
- 6.68 As described in paragraph 5.56 of GLVIA3, at opposite ends of the spectrum, the following may apply to landscape effects:
- major loss or irreversible negative effects, over an extensive area, on elements and/or aesthetic and perceptual aspects that are key to the character of nationally valued landscapes are likely to be of the greatest significance; and
 - reversible negative effects of short duration, over a restricted area, on elements and/or aesthetic and perceptual aspects that contribute to but are not key characteristics of the character of landscapes of community value are likely to be of the least significance and may, depending on the circumstances, be judged as not significant.

Physical Disturbance of Individual Elements and Features

- 6.69 The physical disturbance of individual elements and features resulting from the proposed development occurs at the site level only, i.e. within the application site.
- 6.70 The sensitivity of elements and features within the application site to the proposed development is low due to the following:
- low susceptibility of the existing quarry workings and extension area (which would be able to accommodate the proposed development whilst ensuring the achievement of landscape planning policies and strategies, relating to Area of Search for New Minerals during operational phases and Green Space recreation); and
 - low value of the existing active quarry areas and ancillary development and the community level value of the extension area (in terms of its landscape condition, scenic quality and function).
- 6.71 The magnitude of change upon individual elements and features during operational phases of mineral extraction would be medium and neutral for the following reasons:
- medium level of landscape change within the small extension area, where the amenity grassland and young trees / woodland, tracks and trails would be replaced with elements in the adjacent existing quarry and negligible in other parts of the application site, where the composition/balance of active quarry and landfill elements would be broadly unchanged;
 - small geographical extent of landscape change whereby although the whole of the extension area would be a new area affected, this represents a limited part of the wider country park (and a limited part of the application site); and
 - the duration of operational phases would be long-term overall.
- 6.72 The magnitude of change upon individual elements and features after final restoration would be medium and neutral and for the following reasons:
- medium level of landscape change, where the lower-level valley, with exposed, steep slopes (rock faces and benches) and wetland (waterbody and reedbed) in the base would become a new distinctive feature and replace some of the gently sloping topography, albeit with a similar mosaic of conservation grassland, open mosaic habitats and native woodland, tracks and trails;
 - small extent of landscape change whereby although the whole of the extension area would be a new area affected, this represents a limited part of the wider country park (and a limited part of the application site); and
 - the restoration scheme represents a permanent change.
- 6.73 The loss and alteration of restored landscape elements and features on the former colliery site within the extension area, from the expansion of the active quarrying operations would be neutral. The restoration scheme and reinstatement of similar landscape elements and features would be neutral, with the retention of the geological interest on the steeper slopes (rock faces and benches) being beneficial.
- 6.74 Thus, the potential effect relating to the physical disturbance and changes of landscape elements and features would be no more than moderate and not significant. This reflects the mitigation proposals built into the development scheme.

Alterations to Aesthetic and Perceptual Aspects

- 6.75 Changes to aesthetic and perceptual aspects of the existing landscape would occur principally within the application site and its immediate landscape setting, with effects on the wider landscape setting being limited by the nature of surrounding landform and vegetation (refer to the 'Visual Effects' section in this chapter).
- 6.76 The sensitivity of aesthetic and perceptual aspects of the application site and its immediate setting to the type of change proposed is low due to the following:
- low susceptibility, due to there being some ability to accommodate the development without transformational adverse effects, considering the influence of the active quarry and ancillary development, established industrial development and settlement areas and busy A6196, as well as the Area of Search for New Minerals policy; and
 - low value of the existing active quarry areas and ancillary development and the community to local authority level value of the wider area.
- 6.77 The magnitude of change to the aesthetic and perceptual aspects operational phases of mineral extraction within the application site and its immediate landscape setting would be medium and neutral for the following reasons:
- medium level of landscape change as the proposals would not change the overall composition/balance of the landscape. Several aspects would be extended or re-positioned (the large-scale mineral workings with busy vehicles and plant movements, during working hours, diverse engineered landforms, textured and earthy shades of brown or greys of the land and muted darker greens and earthy brown colours of the trees and woodland);
 - geographical extent would be small as the appreciation of aesthetic and perceptual changes would be restricted to a limited area within the immediate vicinity of the site; and
 - the duration of operational phases would be long-term overall.
- 6.78 The magnitude of change to the aesthetic and perceptual aspects after final restoration within the application site and its immediate landscape setting would be medium and neutral for the following reasons:
- medium level of change where the low-level valley, with exposed, steep slopes and wetland (waterbody and reedbed) areas in the base would be more diverse and replace the gently sloping topography, albeit with similar mosaic of conservation grassland, open mosaic habitats and native woodland, tracks and trails. The ongoing use of the brick-making raw materials stockpiling area to the west would be unchanged;
 - small geographical extent of landscape change as the appreciation of aesthetic and perceptual changes would be restricted to a limited area within the immediate vicinity of the site; and
 - the restoration scheme represents a permanent change.
- 6.79 The alteration to aesthetic or perceptual aspects on the former colliery site within the extension area, from the expansion of the active quarrying operations would be neutral. The restoration scheme and reinstatement of similar aspects would also be neutral.
- 6.80 Thus, the potential effects upon aesthetic and perceptual aspects would be no more than moderate and not significant. This reflects the mitigation proposals built into the development scheme.

Alterations to Overall Character and Key Characteristics

- 6.81 The alterations to overall landscape character and key characteristics result from a combination of changes to physical elements and features and the changes to the aesthetic and perceptual aspects of views/inter-visibility. Such effects occur both within the application site and its immediate landscape setting (and these are considered together).
- 6.82 At a local level, the proposed development would alter the classification of the extension area from “Sloping Amenity Grassland and Woodland Mosaic” to “Operational Brick Clay Quarry with Ancillary Stockpiles”. However, this would extend the existing classification of the existing adjacent and much larger operational site.
- 6.83 Following final restoration, the local classification would become “Sloping Conservation Grassland and Woodland Mosaic, with Wetland”. Again, this landcover would occur over much of the existing operational site in the absence of the proposed development, in accordance with the approved restoration scheme. Albeit the main differences relate to the lower-level valley feature and wetland.
- 6.84 The sensitivity of the “Wooded Coalfield Farmland” LCT to the type of change proposed is medium due to the following:
- low susceptibility. A highly settled landscape, this area is already recognised as being influenced by quarries and mining; and
 - medium - local authority level value of the area, including Green Belt, areas of designated Green Space and ancient woodland, with historic features.
- 6.85 The magnitude of change to the overall landscape character within the “Wooded Coalfield Farmland” LCT during operational and restoration phases would be slight for the following reasons:
- the size or scale of change to the character area as a whole would be small, as there would be no new elements or key characteristics introduced (e.g. “*Rolling landform containing steeper slopes*” and “*industrial heritage (mines, tips, etc)*” are already recognised in this area). The proposals would not significantly change the composition / balance of the overall landscape character type;
 - The geographical extent would be small (both in terms of physical disturbance and changes to views) as the development would be a relatively small part of the wider and larger character type; and
 - the duration of operational activities would be long-term overall. After final restoration, the changes would be permanent.
- 6.86 The nature of change resulting from the proposed development is considered to be neutral due to the currently defined landscape character and key characteristics.
- 6.87 The potential effect relating to the overall landscape character within the “Wooded Coalfield Farmland” LCT would be no more than minor.

Cumulative landscape effects

- 6.88 The existing quarry and ancillary development is considered as part of the baseline conditions. No other proposed or consented developments were identified within the study area and potential cumulative landscape effects have therefore not been considered any further in this assessment.

Summary Statement of the significant landscape effects

- 6.89 Overall this assessment has not identified any significant (major or moderate/major) landscape effects as a result of the proposed development.

VISUAL EFFECTS

Introduction

- 6.90 A study area of up to 3km surrounding the application site has been adopted for this visual assessment, based on the interpretation of the ZTVs described below, knowledge of the site and experience of similar projects.

Visual Baseline

- 6.91 Baseline conditions for the application site and surrounding study area have been assessed and are described below.

Visual receptors

- 6.92 Paragraph 6.13 of GLVIA3 defines visual receptors as people living in the area; people who work there; people passing through on road, rail or other forms of transport; people visiting promoted landscapes or attractions; and people engaged in recreation of different types.
- 6.93 Initially, it is necessary to define the extent of visibility both within and outside the application site and how it relates to potential receptors. Comparative ZTV analysis using LSS software (McCarthy Taylor), in accordance with the method statement in Appendix 5 has been undertaken, as follows:
- using the design model for the Phase 4 extraction model, which includes the existing quarry and the extension area, as shown on **Drawing CM 6/2**; and
 - using the existing topography in the extension area only, as shown in **Drawing CM 6/3**.
- 6.94 The ZTV assessment is limited to subtended vertical angles above 0.25°. Areas with less than this theoretical angle were considered unlikely to generate significant effects. Furthermore, the ZTVs are based on a bare terrain; that is, the computer model does not include any vegetation, structures or other buildings. As a result, the extent of theoretical visibility would be reduced when surrounding intervening vegetation, is taken into consideration. These elements are considered in the main assessment of changes to views, where appropriate.
- 6.95 The general theoretical visibility of the design model for the Phase 4 extraction model, which includes the existing quarry and the extension area, can be summarised as follows:
- the area of visible vertical angle above 3 degrees is restricted to the site and approximately 500m to the south-west, and 100m to the north and east including parts of the New Park Springs country park and Bridleway 31;
 - the area of visible vertical angle between 1 and 3 degrees extends for a further 200m to the south-west and includes additional parts of the New Park Springs country park and also extends for 1km to the west, including part of A6196, commercial and industrial properties and part of Cudworth Common; and

- the areas of visible vertical angle of between 0.25 and 1 degree extends for over 2km to the north-west and south-west, including further parts of the A6196, the eastern side of Cudworth (and Upper Cudworth) and associated public rights of way which cover the east-facing valleyside and properties such as Tyers Hall Farm and Wood Latches Farm and the edge of Ardsley on the distant rising ground.

6.96 The general theoretical visibility of the existing topography within the extension area only can be summarised as follows:

- the area of visible vertical angle above 3 degrees is restricted to the site and approximately 500m to the west and south, and 100m to the north and east including parts of the New Park Springs country park and Bridleway 31;
- the area of visible vertical angle between 1 and 3 degrees typically extends for over additional areas to the north, south and west, including parts of the site, New Park Springs country park, A6196 and commercial and industrial properties and part of Cudworth Common;
- the areas of visible vertical angle of between 0.25 and 1 degree extends for over 2km to the north-west and south-west, including further parts of the A6196, the eastern side of Cudworth (and Upper Cudworth) and associated public rights of way which cover the east-facing valleyside.

6.97 Key potential visual receptors in the area covered by the ZTVs therefore include the following:

- inhabitants of settlements, such as Grimethorpe to the north, Cudworth (Cudworth Common and Upper Cudworth) to the west and Ardsley (and Lees Hill) to the south-west;
- local residents within individual properties and farmsteads such as Tyers Hall Farm and Wood Laithes Farm to the south-west;
- users of the A6195 and local road network connecting villages and settlements (such as Springvale Road which provides access to Grimethorpe village and Clayburn Way which provides access to the site);
- users of the Public Right of Way / Green Way which passes adjacent to the east of the site and also those in the surrounding area, such as extending east from Cudworth and on elevated ground near to Horse Carr Wood; and
- Visitors to New Park Springs country park and Cudworth Common.

6.98 To provide proportionality within the assessment and to focus on likely significant effects, the following visual receptors which are not substantially covered by the extension area ZTV and/or have restricted visibility identified during the fieldwork due to vegetation or other features, are not considered in any more detail in this assessment:

- inhabitants of settlements, such as Great Houghton (Houghton Green and Little Houghton) to the east, as well as Brierley to the north, Shafton Two Gates to the north-west and Middlecliffe to the south;
- local residents within individual properties and farmsteads such as West Haigh Lodge and Hargate House to the north-east, Middle Farm and Edderthorpe to the south, Crook House Farm to the south-west and Storrs Mill and Storrs Mill Farm to the west.
- Users of the local road network between the above settlements (including A628 and A635);
- users of the Barnsley Boundary Walk and Dearne Way and more distant public rights of way in the wider area more generally; and

- visitors to the RSPB's Edderthorpe Ings nature reserve.

Viewpoints - representative, specific, illustrative

- 6.99 As stated in paragraph 6.19 of GLVIA3, viewpoints can fall broadly into three groups: representative; specific; and illustrative. Paragraph 6.20 of GLVIA3, then describes how the selection of the final viewpoints used for the assessment has taken account of the following range of factors:
- 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); and
 - the potential for cumulative views of the proposed development in conjunction with other developments.
- 6.100 Photography and fieldwork analysis of the views of the application site has been carried out from the surrounding landscape. This determined which locations offer the clearest views of the application site and/or are most accessible to the public and provide representative viewpoints for detailed viewpoint analysis.
- 6.101 The selected representative viewpoints are listed in Table 6-2 below, with a brief description of location and value attached to the views at each location. The photographs of existing views from each of these locations are shown on the accompanying drawing sheets and a more detailed description and analysis of the existing views are included in the individual viewpoint analysis in Appendix 6/5 to this chapter. Individual viewpoint locations are shown on the ZTVs.

Table 6-2
List of Representative Viewpoints and Value attached to Views

Viewpoint	Location / Description	Drawing Ref
1	A6195 by Grimethorpe Colliery Roundabout junction leading to Grimethorpe and site access. Representative of road users. Low value views.	CM 6/4
2	Barnsley Bridleway No. 31 east of the site. Designated as Green Way in Barnsley Local Plan and part of the Green Belt. Representative of local recreational receptors. Community value views.	CM 6/5
3	New Park Springs Country Park east of site. Also designated as Green Space in Barnsley Local Plan and part of the Green Belt. Representative of local recreational receptors. Community value views.	CM 6/6 and 6/7
4	New Park Springs Country Park south-east of site. Designated as Green Space in Barnsley Local Plan and part of the Green Belt.	CM 6/8

Viewpoint	Location / Description	Drawing Ref
	Representative of local recreational receptors. Community value views.	
5	New Park Springs Country Park south-west of site. Designated as Green Space in Barnsley Local Plan and part of the Green Belt. Representative of local recreational receptors. Community value views.	CM 6/9
6	New Park Springs Country Park south of site. Designated as Green Space in Barnsley Local Plan and part of the Green Belt. Representative of local recreational receptors. Community value views.	CM 6/10
7	New Park Springs Country Park – by memorial. Designated as Green Space in Barnsley Local Plan and part of the Green Belt. Representative of local recreational receptors. Local authority value views.	CM 6/11
8	Barnsley Footpath No. 1, at junction with Barnsley Footpath No. 55, near to Horse Carr Wood. Part of the Green Belt in Barnsley Local Plan. Representative of local recreational receptors. Community value views.	CM 6/12
9	Barnsley Bridleway No. 10, on edge of Cudworth. Part of the Green Belt in Barnsley Local Plan. Representative of local recreational receptors and local residents. Community value views.	CM 6/13

Prediction of visual effects

- 6.102 As described in paragraph 6.26 of GLVIA3, changes in views and visual amenity may arise from built or engineered forms and/or soft landscape elements of the development. Visual effects can occur during the initial site and vegetation clearance, stripping and extraction works, but also following restoration.
- 6.103 The assessment of significance of residual visual effects is carried out for each effect thought likely to occur and for the relevant receptor that may be altered by the scheme (such as the views of residents, users of road, rail or public rights of way or other recreational facilities).
- 6.104 A detailed description of predicted changes to individual representative viewpoints is provided in **Appendix 6/5**, with the following part of the assessment referring to the predicted effects to visual receptors, more generally.

Criteria

- 6.105 The criteria for assessing the significance of residual visual effects (i.e. after the built-in mitigation) is described above and in GLVIA3 and is based on the combination of the nature of the receptor likely to be affected (sensitivity) and the nature of effect likely to occur (magnitude).
- 6.106 As described in paragraph 6.44 of GLVIA3, at opposite ends of the spectrum the following may apply to visual effects:
- effects on people who are particularly sensitive to changes 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; and
- 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 in the view.

Summary Viewpoint Tables

- 6.107 Table 6-3 below provides a summary of the predicted effects at individual representative viewpoints, during operational phases and after final restoration.
- 6.108 A detailed description of predicted changes to individual representative viewpoints is provided in Appendix 6/5, with the following part of the assessment referring to the predicted effects to visual receptors, more generally.

Table 6-3
Summary of Representative Viewpoints

VP	Receptors	Sensitivity	Magnitude	Overall Effect
1	Road users of A6195	Low	No change	None
2	Recreational users of Barnsley Bridleway 31	Medium to high	No change	None
3	Recreational users of New Park Springs Country Park	Medium to high	Medium and adverse initially during construction, becoming slight and neutral as the tree planting treatments mature	Moderate and adverse during construction and early phases, but becoming moderate / minor and neutral as the advance tree and shrub belt establishes and matures
4	Recreational users of New Park Springs Country Park	Medium to high	Medium and adverse initially during construction, becoming slight and neutral as the tree planting treatments mature	Moderate and adverse during construction, becoming moderate / minor and neutral as the advance tree and shrub belt establishes and matures
5	Recreational users of New Park Springs Country Park	Medium to high	Slight and adverse initially during construction, becoming slight and neutral as the tree planting treatments mature	Moderate /minor and adverse during construction, becoming moderate / minor and neutral as the advance tree and shrub belt and upper restored slopes establish and mature
6	Recreational	Medium	Slight and adverse initially	Moderate /minor and adverse

VP	Receptors	Sensitivity	Magnitude	Overall Effect
	users of New Park Springs Country Park	to high	during construction, becoming slight and neutral as the tree planting treatments mature and also after final restoration	during construction, becoming moderate / minor and neutral as the advance tree and shrub belt establishes and matures and after final restoration
7	Recreational users of New Park Springs Country Park – by memorial	medium to high sensitivity	be slight and adverse initially during construction, becoming slight and neutral as the tree planting treatments mature and also after final restoration	moderate /minor and adverse during construction, becoming moderate / minor and neutral as the advance tree and shrub belt establishes and matures and after final restoration
8	Recreational users of Barnsley Footpath 1	Medium to high sensitivity	No change	None
9	Recreational users of Barnsley Bridleway 10 and local residents	Medium to high sensitivity	Slight and neutral during continued working and also after final restoration	Moderate /minor and neutral as the slopes continue to weather and are retained after final restoration

Communities within Settlements and Residents of other properties

- 6.109 The sensitivity of the inhabitants of the nearby properties at Grimethorpe, to the north, Cudworth (and Upper Cudworth) to the west and Ardsley (and Lees Hill) to the south-west, as well as farmsteads and other properties surrounding the site to the type of change proposed is medium to high due to the following:
- high susceptibility of residents; and
 - community level - value views. The residents are experiencing views which are not nationally or locally designated, or judged to be of equivalent value, but nevertheless valued at a community level.
- 6.110 The orientation of the dwellings themselves affects the degree of visibility for residential receptors, for example whether the views would be direct or indirect (or oblique). It is considered that direct views are where the difference between the direction of view from the main front or rear façade of each building and the direction to the proposed development is less than 45°. Correspondingly indirect views are where there is difference of over 45° between the two bearings. Furthermore, the presence of other existing focal points within residential views as well as adjacent buildings and garden vegetation, and other boundary features will influence impacts on composition or character.
- 6.111 The magnitude of change to the views and visual amenity of communities within and around Grimethorpe would be no more than negligible and neutral. The individual dwellings are not

covered by either of the ZTVs and there is also a wide mature tree belt around the southern edge of the settlement providing a further buffer. Residents travelling to and from the settlement would not notice any changes due to the other existing commercial and industrial development along Springvale Road.

- 6.112 The magnitude of change to the views and visual amenity of communities within and around Ardsley (and Lees Hill) would be no more than negligible and neutral. Whilst a few properties along the northern edge of the settlement are covered by the combined Phase 4 extraction area ZTV, the settlement is not covered by the ZTV for the extension area on its own. This suggests that only the changes to the restoration scheme within the existing quarry may be visible, in particular the exposed steep slopes. However, at over 3km away and with intervening vegetation and mature woodland (Horse Carr Wood), residents are unlikely to notice any changes (refer to Viewpoint 8 in Appendix 6/5).
- 6.113 The magnitude of change to the views and visual amenity of communities within and around Cudworth (Cudworth Common and Upper Cudworth) would be no more than slight and neutral:
- the size or scale of change to views will vary according to position within and around the settlement, but range from no view, through to a negligible or small change, to a part of a distant valley side. Typically, the proposals would barely alter the composition or visual amenity offered and/or be glimpsed (refer to Viewpoint 9 in Appendix 6/5);
 - the geographical extent would be negligible. Being positioned along a ridge of ground at over 1.5km away from the development, around half of the settlement(s) would not be covered by the ZTVs. The ZTVs shows some coverage of the settlement on the eastern side of the ridge, although where there are open aspects at these locations, they tend to be directed to the east, rather than to the south-east towards the site; and
 - the duration of operations would be long-term overall, with restoration to provide a long-term / permanent feature as it establishes.
- 6.114 Local residents within Tyers Hall Farm and Wood Laithes Farm to the south-west are not anticipated to have any noticeable changes to views or visual amenity. At over 2.5km to the south-west of the site these locations were only covered by the ZTV for Phase 4 extraction area and not the extension area, indicating that any potential visibility would be limited to the revised restoration scheme and the exposed eastern faces. The combination of distance and intervening farm buildings and vegetation would limit potential views.
- 6.115 The overall visual effect upon communities within and around the site and would not be significant, with up to moderate / minor changes, typically involving features already present in the view.

Users of road network

- 6.116 The roads considered in the visual assessment include the A6195, as well as the local road network connecting nearby villages and settlements, such as Springvale Road which provides access to Grimethorpe village and Clayburn Way which provides access to the site.
- 6.117 The sensitivity of road users to the type of change proposed is low to medium due to the following:
- low susceptibility of travellers, where the view is incidental to the journey; and
 - medium - community value views. The road users are experiencing views which are not nationally or locally designated, or judged to be of equivalent value, but nevertheless valued at a community level.

- 6.118 The visibility from roads will inevitably be influenced by the direction of travel and position of the proposed development relative to the viewer (for example whether along the route and in the field of view of the traveller or perpendicular to the route and difficult to see without the traveller turning away). Furthermore, the presence of other existing focal points within the route corridor as well as adjacent buildings and roadside vegetation and other boundary features will influence impacts on composition or character.
- 6.119 The magnitude of change to the views and visual amenity of travellers along the A6195 would be no more than negligible and neutral:
- the size or scale of change to views from this route are not anticipated to be noticeable, with much of the route where there would be no visibility. (refer to Viewpoint 1 which is located on Grimethorpe roundabout in Appendix 6/5);
 - the geographical extent would be negligible. The ZTV extended over a relatively short, 0.5km stretch of this route and this section was built up with commercial and industrial development which restricted views. Furthermore, road users are anticipated to be primarily focussed on the direction of travel and the road corridor, which would be uninterrupted and moving relatively quickly; and
 - the duration of operational phases would be long-term overall and restoration permanent.
- 6.120 The magnitude of change to the views and visual amenity of travellers along the local road network connecting villages and settlements (such as Springvale Road which provides access to Grimethorpe village and Clayburn Way which provides access to the site) would be no more than negligible and neutral:
- the size or scale of change to views from these routes are not anticipated to be noticeable and with much of the routes where there would be no visibility (refer to Viewpoint 1 which is located on Grimethorpe roundabout in Appendix 6/5);
 - the geographical extent would be negligible. Although the ZTV extended over most of these routes, this area was built up with development which restricted views. Furthermore, road users are anticipated to be primarily focussed on the direction of travel and the road corridor, which would be uninterrupted and moving relatively quickly; and
 - the duration of operational phases would be long-term overall and restoration permanent.
- 6.121 Thus, the overall potential effects relating to the changes to views and visual amenity upon travellers along the identified road routes would be negligible and therefore not significant.

Users of local public right of way network

- 6.122 There are several nearby public rights of way considered in the visual assessment:
- users of Bridleway (No 31) (also designated as a Green Way in the Barnsley Local Plan) which passes adjacent to the east of the site and connects with Grimethorpe to the north; and
 - routes in the surrounding area, such as Footpath 10 to the west of the site and which extends east from Cudworth and Footpath 1 on elevated ground south-west of the site near to Horse Carr Wood (extending east from Lees Hill).
- 6.123 The sensitivity of the users of the public rights of way surrounding the application site, to the type of change proposed is medium to high due to the following:

- high susceptibility of people engaged in outdoor recreation where their attention is likely to be focused on the landscape and countryside views; and
 - community level - value views along the recreational routes, such as Green Way and Green Space / country park.
- 6.124 The visibility from the right of way network will inevitably be influenced by the direction of travel and position of the proposed development relative to the viewer (for example whether along the route and in the field of view of the traveller or perpendicular to the route and difficult to see without the traveller turning away). Furthermore, the presence of other existing focal points within the route corridor as well as adjacent buildings and roadside vegetation and other boundary features will influence impacts on composition or character.
- 6.125 The magnitude of change to the views and visual amenity for users of Bridleway (No 31) and Green Way would be negligible and neutral:
- the size or scale of change to views would be very limited due to the established mature vegetation which encloses the route corridor and obscures the development. Glimpsed views of the existing perimeter palisade fence were possible where the route passes close by this feature (refer to Viewpoint 2 in Appendix 6/5);
 - the geographical extent would be negligible. The ZTVs extended over only a relatively short c0.5km section of the route and users are anticipated to be primarily focussed on the direction of travel and Green Way corridor, which would be uninterrupted; and
 - the duration of operational phases would be long-term overall and restoration permanent.
- 6.126 The magnitude of change to the views and visual amenity for users of public right of way Footpath 10 to the west of the site and which extends east from Cudworth would be slight and neutral during continued working and after final restored:
- the size or scale of change to views would vary from no views (on lower valley side slopes and where intervening vegetation obscures the development) to small where the retained slopes within the existing quarry may be visible, typically at the elevated position on the edge of the settlement (refer to Viewpoint 9 in Appendix 6/5);
 - the geographical extent would be small, as although the ZTV extended over the entire route, this was of a low vertical angle. Footpath users would be primarily focussed on the direction of travel, with the development offset some distance from the uninterrupted route; and
 - the duration of operational phases would be long-term overall and restoration permanent.
- 6.127 The magnitude of change to the views and visual amenity for users of public right of way Footpath 1 on elevated ground south-west of the site near to Horse Carr Wood (extending east from Lees Hill) would be negligible and neutral during continued working and after final restored:
- the size or scale of change to views would be typically limited to no views, due to intervening vegetation which obscures the distant development (refer to Viewpoint 8 in Appendix 6/5);
 - the geographical extent would be small, as although the ZTV extended over the entire route, this was of a low vertical angle. Footpath users would be primarily focussed on the direction of travel, with the development offset some distance from the uninterrupted route; and
 - the duration of operational phases would be long-term overall and restoration permanent.

- 6.128 Thus, the overall potential effects relating to the changes to views and visual amenity upon travellers along the identified public rights of way would be no more than moderate/minor and neutral and therefore not significant.

Visitors to Recreational facilities

- 6.129 Visitors to other recreational facilities included in this visual assessment include visitors to New Park Springs country park and Cudworth Common.
- 6.130 The sensitivity of visitors to these recreational facilities, would typically be medium to high, due to the following:
- high susceptibility of people engaged in outdoor recreation where their attention is likely to be focused on the landscape and countryside views; and
 - community level value views (Positioned within an area of Green Space and where the landscape and views generally form a recognised part of the visitor experience).
- 6.131 The visibility from recreational facilities will inevitably be influenced by the activities being undertaken and the position of the proposed development relative to the viewer (for example whether adjacent to the facility and in the field of view of the visitor or set back and more difficult to see). Furthermore, the presence of other existing focal points around the area as well as adjacent buildings, vegetation or other boundary features will influence impacts on composition or character.
- 6.132 The magnitude of change to the views and visual amenity of visitors would be no more than slight and adverse during operational phases, becoming slight and neutral as the landscaping / tree planting treatments mature and the site is restored in the long-term:
- the size or scale of change to views would vary depending on location, for example ranging from purpose-built tracks adjacent to the extension area with close in views of the reconfigured fence and extension area (Viewpoint 3, 4, 5 and 6 in Appendix 6/5) to the distant elevated panorama near the trig point (refer to Viewpoint 7 in Appendix 6/5), as well as more enclosed and/or distant locations;
 - the geographical extent would be small. Although there were areas with relatively high visible vertical angles shown over parts of New Park Springs country park on the ZTVs, around half of the country park had no coverage and little to no visibility is predicted. Cudworth Common had extended areas of coverage, but of a typically smaller vertical angle and where the development is some distance away and the wider panoramas would be unchanged. For the majority of cases, visitors would be able to appreciate the recreational facilities without interruption; and
 - the duration of operational phases would be long-term overall and restoration permanent.
- 6.133 Thus, taking into account the judgements of sensitivity and magnitude above, the overall potential visual effects relating to the changes to views and visual amenity of visitors to recreational routes and facilities would not be significant.
- 6.134 Effects would be no more than moderate / minor and adverse during operational phases, but becoming neutral as the landscaping treatments establish and matures.

Cumulative Visual Effects

- 6.135 The existing quarry and ancillary development is considered as part of the baseline conditions. No other proposed or consented developments were identified within the study area and potential cumulative visual effects have therefore not been considered any further in this assessment.

Summary Assessment

- 6.136 Overall, this assessment has not identified any significant (major or moderate/major) visual effects as a result of the proposed development.

LANDSCAPE AND VISUAL EFFECTS IN RELATION TO GREEN BELT

Discussions

- 6.137 As set out in National Planning Policy Framework (NPPF), the Government attaches great importance to Green Belts and the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence.
- 6.138 In relation to the first purpose of Green Belt, in landscape and visual terms, the addition of the proposed extension area and amendments to the phasing and restoration of the existing quarry would not be perceived as constituting additional sprawl of large built-up areas. The relatively small area of additional quarry workings would be positioned between a larger active quarry and landfill, with engineered bunds and stockpiles and a relatively recently restored, former colliery with large-scale mounds and tips (which is developing as a country park). The proposed restoration scheme would ensure a sympathetic assimilation with this established wider landscape context.
- 6.139 In relation to the second purpose of Green Belt, in landscape and visual terms, the addition of the proposed extension area and amendments to the phasing and restoration of the existing quarry would not result in the perception of neighbouring towns merging into one another. Grimethorpe would still be over 1.5km away from Great Houghton to the south, with no reduction in the actual or perceived gap.
- 6.140 In relation to the third purpose of Green Belt, in landscape and visual terms, the addition of the proposed extension area and amendments to the phasing and restoration of the existing quarry would safeguard the countryside from encroachment, by being positioned within an established industrial context, which has been subject to previous workings, as is recognised in the published landscape character assessment.
- 6.141 In relation to the fourth purpose of Green Belt, in landscape and visual terms, the addition of the proposed extension area and amendments to the phasing and restoration of the existing quarry would not adversely affect the setting and or special character of historic towns, due to its position within an established historic mining area.
- 6.142 In relation to the fifth purpose of Green Belt, in landscape and visual terms, the addition of the proposed extension area and amendments to the phasing and restoration of the existing quarry would not detract from potential opportunities for urban regeneration, as it relates to operations at the established brickworks and minerals which can only be worked where they are found and could not be located within derelict or other urban land elsewhere.

CONCLUSIONS

- 6.143 This LVIA has assessed the potential landscape and visual implications of the proposed development. This included a baseline study of the existing site and its surroundings, a study of the landscape and visual characteristics of the proposed development, and an assessment of the residual landscape and visual effects likely to be generated after mitigation has been considered and their significance.
- 6.144 Overall, there were no significant landscape and visual effects predicted as a result of the proposed development.
- 6.145 The application site does not form part of any national valued landscape designation, although it is located within the Green Belt. Part of the existing quarry is covered by the Carlton Main SSSI designation, due to the Coal Measures strata exposed by the previous extraction of clay.
- 6.146 The existing planning permission granted in 2003 includes the restoration of the quarry with phased infilling with non-hazardous wastes and subsequent restoration to sloping woodland and grassland habitats. The proposed development would reduce the amount of infilling and would retain the Coal Measures strata.
- 6.147 Within the Barnsley Local Plan, Carlton Main Brick Works is allocated as an existing site with planning permission for the extraction of minerals (Policy MIN1) and there is an allocated Area of Search for New Minerals on land to the south and east (Site MINAS1), which includes the proposed extension area. The proposed extension area is also designated as Green Space (parks and open spaces, play areas, sports pitches, local natural areas and cemeteries), being part of New Park Springs country park and offering recreational facility.
- 6.148 At a local level, the proposed development would alter the classification of the extension area from "Sloping Amenity Grassland and Woodland Mosaic" to "Operational Brick Clay Quarry with Ancillary Stockpiles". This would extend the existing classification of the existing operational site.
- 6.149 Following final restoration, the local classification would become "Sloping Conservation Grassland and Woodland Mosaic, with Wetland". Again, this would occur over much of the existing operational site in the absence of the proposed development, in accordance with the approved restoration scheme, albeit as a lower-level valley feature.
- 6.150 The potential effect relating to the overall landscape character within the "Wooded Coalfield Farmland" LCT would be no more than minor.
- 6.151 Visibility of the proposed development would be restricted to relatively close-in locations to the south and more distant, elevated locations on the valleysides to the west and south-west. For example, local residents and users of the public right of way on the edges of Cudworth and visitors to New Park Springs country park and Cudworth Common.
- 6.152 The development would not detract from the character or function of the Green Way or Public Rights of Way to the east.
- 6.153 In landscape and visual terms it is not considered that the proposals would not constitute urban sprawl and ensure that the land is kept open.
- 6.154 Although the proposed development would necessitate the temporary loss of recently restored woodland and grassland habitats, tracks and trails this would be located on former mining land, and an appropriate landscaping and restoration scheme would be provided.

LVIA METHODOLOGY

1. The methodology for this Landscape and Visual Impact Assessment (LVIA) follows the Guidelines for Landscape and Visual Impact Assessment (3rd Edition), published by Landscape Institute and Institute of Environmental Management and Assessment (hereafter referred to as “GLVIA 3”).
2. In reading the following methodology, it is important to also refer to the detailed guidance and considerations set out in GLVIA 3.
3. GLVIA3 describes how *“The EIA Directive and UK Regulations refer to projects likely to have significant effects on the environment. This means that identifying and describing the effects of a project is not enough in itself. They must also be assessed for their significance. This is a key part of the LVIA process and is an evidence-based process combined with professional judgement. It is important that the basis of such judgements is transparent and understandable, so that the underlying assumptions and reasoning can be understood by others.”*
4. The determination of significant effects follows the step-by-step process shown in Figure 3.5 of GLVIA3 and is based on the combination of the sensitivity of the receptor (susceptibility to the type of change proposed and value) and the magnitude of effect (size/scale, geographical extent, duration and reversibility).
5. “Major Effects” and “Moderate / Major Effects” identified in the LVIA chapter are regarded as “significant” in the context of the EIA Regulations.

Landscape Effects

6. Paragraph 5.1 of GLVIA3 describes how landscape effects are concerned with “how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character”.

Sensitivity of Landscape Receptors

7. In relation to sensitivity, Paragraph 5.39 of GLVIA states that “Landscape receptors need to be assessed firstly 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.”
8. The susceptibility to the type of change of each landscape receptor will be judged as either high, medium and low, in accordance with the considerations set out in the table below.

Susceptibility to Type of Change Proposed	Considerations
High	The landscape receptor (including the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character) has very limited or no ability to accommodate the proposed development without undue negative consequences for the maintenance of the baseline situation and/or achievement of landscape planning policies and strategies.
Medium	The landscape receptor (including the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character) has some ability to accommodate the proposed development without negative

Susceptibility to Type of Change Proposed	Considerations
	consequences for the maintenance of the baseline situation and/or achievement of landscape planning policies and strategies.
Low	The landscape receptor (including the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character) is generally able to accommodate the proposed development whilst ensuring the maintenance of the baseline situation and/or achievement of landscape planning policies and strategies.

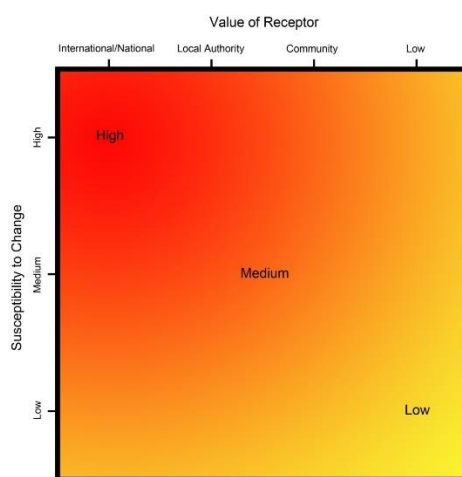
9. The value of the landscape receptors will be judged as either international, national, local, community or as a low level, in accordance with the considerations set out in the table below. This may reflect landscape designations and the level of importance which they signify, although there should not be an over-reliance on designations as the sole indicator of value. Other criteria such as those in Table 1 in the Landscape Institute's TGN-02/21 Assessing Landscape Value outside National Designations should also be considered (including natural heritage, cultural heritage, landscape condition, associations, distinctiveness, recreational, perceptual and function).

Landscape Value	Considerations
International	The landscape receptor (including the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character) are identified as being of international importance according to UNESCO criteria. This would include World Heritage Sites, candidate World Heritage Site. Consideration should be given to their settings especially where these contribute to the attributes of outstanding universal value for which such an area of landscape is valued.
National	The landscape receptor (including the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character) is identified as being of national importance. This would include National Parks, Areas of Outstanding Natural Beauty, National Scenic Areas (in Scotland) or equivalent areas. Gardens and designed landscapes included on the Register of Parks and Gardens of Special Historic Interest as Grade I, II* or II or included in Historic Scotland's Inventory of Gardens and Designed Landscapes in Scotland. Consideration should be given to their settings especially where these contribute to the special qualities for which the landscape is valued.
Local	The landscape receptor (including the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character) is identified as having value, which are either recognised at the local authority level by a local designation or considered to be of equivalent value using other criteria. This would include Special Landscape Areas, Areas of Great Landscape Value, etc.
Community	The landscape receptor (including the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character) is not nationally or locally designated, or judged to be of equivalent value, but nevertheless valued at a community level.
Low	The landscape receptor (including the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character) is not designated or has demonstrable physical attributes that elevates its value, which

Landscape Value	Considerations
	are in poor condition, or are degraded, or fundamentally altered by the presence of man-made structures (which are judged to be intrusive).

10. The overall sensitivity of each landscape receptor assessed will be judged by combining the considerations of susceptibility to the type of change proposed and value. The table below provides an indication of how these judgements might be combined and should be reviewed in conjunction with the more detailed guidance set out in GLVIA 3.

Figure 1:
Example of Levels of Sensitivity defined by Value and Susceptibility of Landscape Receptors



Magnitude of Landscape Effects

11. In relation to magnitude, Paragraph 5.48 of GLVIA states that “*Each effect on landscape receptors need to be assessed in terms of its size or scale, the geographical extent of the area influenced and its duration and reversibility.*”
12. The size or scale of landscape effect will be recorded as large, medium, small, negligible, in accordance with the considerations as set out in the table below. No change may also be recorded, where appropriate.

Size or Scale of Landscape Change	Considerations
Large	• large extent of loss of existing features or addition of new features, high proportion of the total extent that this represents and /or key contribution that the element makes to the character of the landscape; and/or • large degree of change to aesthetic and perceptual aspects of the landscape as a result of removal of existing components or addition of new ones (eg removal of hedges may change a small-scale intimate landscape into a large-scale, open landscape) • direct and large degree of change (loss or addition) to key characteristics which are critical to distinctive character (e.g. development becomes a dominant feature in the landscape, changing the balance of landscape characteristics and/or would dominate important visual connections with other landscape types).

Size or Scale of Landscape Change	Considerations
Medium	• medium extent of loss of existing features or addition of new features, medium proportion of the total extent that this represents and /or moderate contribution that the element makes to the character of the landscape; and/or • medium degree of change to aesthetic and perceptual aspects of the landscape as a result of removal of existing components or addition of new ones (e.g. removal of hedges may change a small-scale intimate landscape into a medium-scale, more open landscape) • medium degree of change (loss or addition) to key characteristics which contribute to distinctive character (e.g the proposed development would be prominent but would not change the overall balance or composition of the landscape; and/or key visual connections to other landscape types may be interrupted intermittently by the proposed development, but these connections would not be dominated by them.)
Small	• small extent of loss of existing features or addition of new features, small proportion of the total extent that this represents and /or limited contribution that the element makes to the character of the landscape; and/or • small degree of change to aesthetic and perceptual aspects of the landscape as a result of removal of existing components or addition of new ones (e.g. removal of hedges may change a small-scale intimate landscape into a small-scale, more open landscape) • little to no change (loss or addition) to key characteristics which contribute to distinctive character (e.g. there would be no introduction of new elements into the landscape and the proposed development would not significantly change the composition/balance of the landscape.)
Negligible	There would be a negligible level or no perceptible change to the extent of existing landscape elements, aesthetic and perceptual aspects, key characteristics or landscape character (e.g the proposed development would be a small element and/or would be a considerable distance from the landscape receptor/ the proposed development would cause little to no change to the landscape).

13. The geographical extent of landscape change will be recorded at various scales, including large area, medium area, small area or negligible area and may be expressed as how it relates to the site level, the site and immediate setting, a landscape type or character area, in accordance with the considerations set out in the table below.

Geographical Extent of Landscape Change	Considerations
Large Area	The change may affect a large area and/or the majority of the landscape receptor under consideration (e.g. may influence several landscape types or character areas.)
Medium Area	The change may affect a medium area and/or approximately half of the landscape receptor under consideration (e.g. influence may extend beyond the site and its immediate setting and include a landscape type or character area).

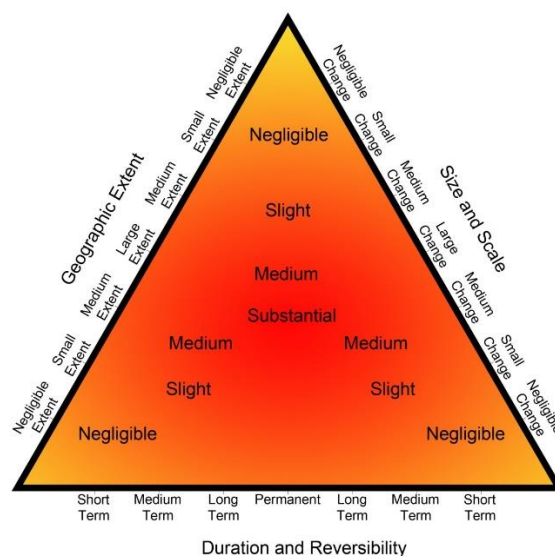
Geographical Extent of Landscape Change	Considerations
Small Area	The change may affect a small area and/or extent of the landscape receptor under consideration (e.g. influence may be restricted to the site and its immediate setting only).
Negligible Area	The change will affect only a limited area and/or negligible extent of the landscape receptor under consideration (e.g. may be limited to the site level only).

14. The duration and reversibility of landscape effect will be recorded at various scales, from short-term, medium-term, long-term and permanent, in accordance with the considerations set out in the table below.

Duration and Reversibility of Landscape Effects	Considerations
Permanent	Change that will last for over 25 years and is deemed permanent or irreversible.
Long term	Change that will endure for between 10 and 25. This may include change which is deemed reversible.
Medium term	Change that will last for up to 10 years. This may include change which is deemed reversible.
Short term	Change that will last from 0 to 5 years. This may include change which is deemed reversible.

15. The overall magnitude of effect on landscape receptor will be judged by combining the considerations of size or scale, geographical extent of the area influenced and duration and reversibility. The table below provides an indication of how these judgements might be combined and should be reviewed in conjunction with the more detailed guidance set out in GLVIA 3.

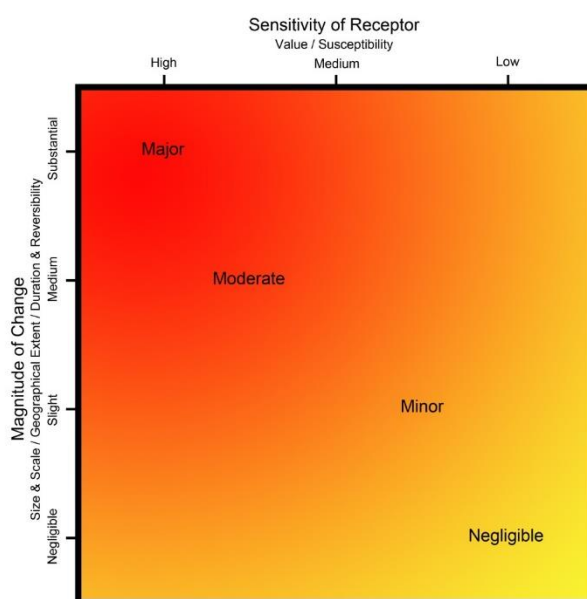
Figure 2
Determining the Magnitude of Landscape Change



Significance of Landscape Effects

16. The separate judgements about sensitivity of landscape receptors and the magnitude of landscape effects will then be combined to allow a final judgement to be made about whether each effect is significant.
17. The table below provides an indication of how these judgements might be combined and should be reviewed in conjunction with the more detailed guidance set out in GLVIA 3.

Figure 3
Assessment of Landscape Effects and Overall Significance



18. Major and major / moderate effects are considered to be significant landscape effects. Those effects of moderate or lower category are generally considered to be not significant. A summary of considerations for each category of landscape effect is set out in the table below.

Significance of Landscape Effects	Considerations
Major	Large size or scale of change, over a large area, on a long-term or permanent basis, on landscape elements, aesthetic and perceptual aspects and/or distinctive character area that have a high susceptibility to the type of change proposed and are nationally or internationally valued.
Moderate	Medium size or scale of change, over a medium area, on a medium to long-term basis, on landscape elements, aesthetic and perceptual aspects and/or distinctive character area that have a medium susceptibility to the type of change proposed and are of national or local value.
Minor	Small size or scale of change, over a small area, of short duration, on landscape elements, aesthetic and perceptual aspects and/or distinctive character areas that have a low susceptibility to the type of change proposed and are of local or community value.

Significance of Landscape Effects	Considerations
Negligible	Negligible size or scale of change over a negligible area and of short duration, on landscape elements, aesthetic and perceptual aspects and/or distinctive character areas that have a negligible susceptibility to the type of change proposed and are of community or low value .

Visual Effects

19. Paragraph 6.1 of GLVIA3 describes how visual effects are concerned with *“assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements”*.

Sensitivity of Visual Receptors

20. In relation to sensitivity, Paragraph 6.31 of GLVIA states that *“Each visual receptor, meaning the particular person or group of people likely to be affected at a specific viewpoint, should be assessed in terms of both their susceptibility to change in views and visual amenity and also the value attached to particular views.”*
21. The susceptibility to the type of change of each visual receptor will be judged as either high, medium and low, in accordance with the considerations set out in the table below.

Susceptibility to Type of Change Proposed	Considerations
High	The visual receptor (i.e. the person or group of people likely to be affected) has very limited or no ability to accommodate the proposed development without undue negative consequences for their occupation or activity. For example, residents at home, people engaged in outdoor recreation where their attention is likely to be focused on the landscape and on particular views, visitors to heritage assets or other attractions where views of the surroundings are an important part of the experience, communities where views contribute to the landscape setting enjoyed by residents in the area and travellers along recognised scenic routes, where awareness of views is likely to be high)
Medium	The visual receptor (i.e. the person or group of people likely to be affected) has some ability to accommodate the proposed development without undue negative consequences for their occupation or activity. For example, people engaged in outdoor recreation where interest is focused on activity rather than primarily on views, visitors to heritage assets or other attractions where surroundings are not important to the experience and travellers on road, rail or other transport routes where the attention of drivers and passengers may be focused on the landscape and on particular views.
Low	The visual receptor (i.e. the person or group of people likely to be affected) has the ability to accommodate the proposed development without undue negative consequences for their occupation or activity. For example, people engaged in

Susceptibility to Type of Change Proposed	Considerations
	outdoor sport or recreation, which does not involve or depend upon appreciation of views, people at their place of work whose attention may be focused on their work or activity, and where the setting is not important to quality of working life and travellers, where the view is incidental to the journey.

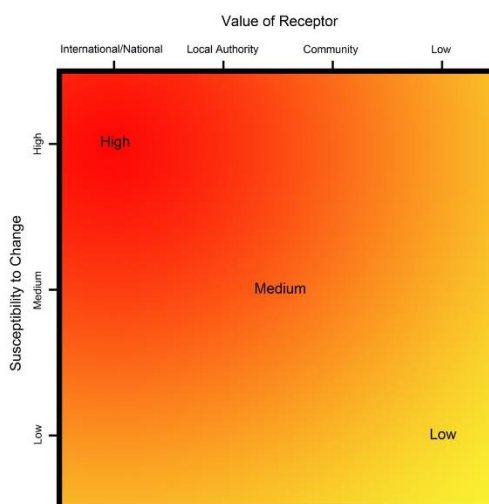
22. The value attached to certain views and visual receptors will be judged as either international, national, local, community or as a low level, in accordance with the considerations set out in the table below. This may reflect recognition through landscape designations or heritage assets or indicators of the value attached to views by visitors, through appearance in guidebooks, tourist maps or provision of facilities.

Value	Considerations
International	The visual receptor (i.e. the person or group of people likely to be affected) is at a viewpoint or experiencing a view which is identified as being of international importance according to UNESCO criteria. This would include World Heritage Sites, candidate World Heritage Site. Consideration should be given to their settings especially where these contribute to the attributes of outstanding universal value for which such an area of landscape is valued.
National	The visual receptor (i.e. the person or group of people likely to be affected) is at a viewpoint or experiencing a view which is identified as being of national importance. This would include National Parks, Areas of Outstanding Natural Beauty, National Scenic Areas (in Scotland) or equivalent areas. Gardens and designed landscapes included on the Register of Parks and Gardens of Special Historic Interest as Grade I, II* or II or included in Historic Scotland's Inventory of Gardens and Designed Landscapes in Scotland. Consideration should be given to their settings especially where these contribute to the special qualities for which the landscape is valued. This may include popular tourist or visitor attractions, where the view forms a recognised part of the visitor experience and with provision of facilities for enjoyment. There may also be other cultural associations.
Local	The visual receptor (i.e. the person or group of people likely to be affected) is at a viewpoint or experiencing a view which is identified as being of value, either recognised at the local authority level by a local designation or considered to be of equivalent value using other criteria. This would include Special Landscape Areas, Areas of Great Landscape Value, etc. This may include local visitor attractions, where the view forms a recognised part of the visitor experience and with provision of facilities for enjoyment, such as seating or interpretation boards. There may also be other known cultural associations.
Community	The visual receptor (i.e. the person or group of people likely to be affected) is at a viewpoint or experiencing a view which is not nationally or locally designated, or judged to be of equivalent value, but nevertheless valued at a community level. This may include provision of facilities for enjoyment, such as seating or interpretation boards.

Value	Considerations
Low	The visual receptor (i.e. the person or group of people likely to be affected) is at a viewpoint or experiencing a view which is not designated or linked to a popular tourist attraction, has no demonstrable physical attributes that elevates its value and is in poor condition, or are degraded, or fundamentally altered by the presence of man-made structures (which are judged to be intrusive). No formal planning status or known cultural associations.

23. The overall sensitivity of each visual receptor assessed will be judged by combining the considerations of susceptibility to the type of change proposed and value. The table below provides an indication of how these judgements might be combined and should be reviewed in conjunction with the more detailed guidance set out in GLVIA 3.

Figure 4
Levels of Sensitivity Defined by Value and Susceptibility of Visual Receptor Groups



Magnitude of Visual Effects

24. In relation to magnitude, Paragraph 6.38 of GLVIA states that “*Each of the visual effects identified needs to be evaluated in terms of its size or scale, the geographical extent of the area influenced, and its duration and reversibility.*”
25. The size or scale of visual effect will be recorded as large, medium, small, negligible, in accordance with the considerations as set out in the table below. No change may also be recorded, where appropriate.

Size or Scale of Visual Change	Considerations
Large	large scale of change in the view with respect to the loss or addition of important features and complete changes in composition, including a high proportion of the view occupied by the proposed development

Size or Scale of Visual Change	Considerations
	• large degree of contrast of any new features or changes in the landscape (low degree of integration, non-characteristic or discordant) with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture • full view of the proposed development (rather than partial or glimpsed) and therefore a dominant feature
Medium	• medium scale of change in the view with respect to the loss or addition of features and clearly noticeable changes in composition, including a moderate proportion of the view occupied by the proposed development • medium degree of contrast of any new features or changes in the landscape (some degree of integration) with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture • partial / intermittent view of the proposed development (rather than full or glimpsed) and therefore a noticeable feature
Small	• small scale of change in the view with respect to the loss or addition of features and perceptible changes in composition, including a small proportion of the view occupied by the proposed development • small but perceptible degree of contrast of any new features or changes in the landscape (moderate degree of integration, involving features already present in the view) with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture • partial / restricted view of the proposed development (rather than full or glimpsed) and therefore a perceptible feature
Negligible	• negligible scale of change in the view with respect to the loss or addition of features and barely perceptible changes in composition, including a very limited proportion of the view occupied by the proposed development • negligible degree of contrast of any new features or changes in the landscape (high degree of integration, involving features already present in the view) with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture • glimpsed view of the proposed development and therefore a barely perceptible feature

26. The geographical extent of visual change will be recorded at various scales, including large area, medium area, small area or negligible area and may be expressed in terms of the angle of view in relation to the main activity of the receptor, distance away and extent of the area over which changes would be visible, in accordance with the considerations set out in the table below.

Geographical Extent of Visual Change	Considerations
Large Area	• large (wide) angle of view in relation to main activity of the receptor • short / close distance of the viewpoint from the proposed development (e.g. development would occupy the foreground) • large extent of the area over which the changes would be visible (the proposed development would be seen from many locations or from the majority, or a large proportion, of a linear route and/or by large numbers of viewers)
Medium Area	• medium (moderate) angle of view in relation to main activity of the receptor • medium distance of the viewpoint from the proposed development (e.g. development would occupy the middle-ground) • medium extent of the area over which the changes would be visible (the proposed development would be seen from several locations or from a moderate proportion, of a linear route and/or by moderate numbers of viewers)
Small Area	• small (narrow) angle of view in relation to main activity of the receptor • long distance of the viewpoint from the proposed development (e.g. development would occupy part of the background) • small extent of the area over which the changes would be visible (the proposed development would be seen from few locations or from limited proportion of a linear route and/or by small numbers of viewers)
Negligible Area	• negligible (very narrow) angle of view in relation to main activity of the receptor • considerable distance of the viewpoint from the proposed development (e.g. development would occupy part of the distant background) • negligible extent of the area over which the changes would be visible (the proposed development would be seen from few locations or from very limited proportion of a linear route and/or by very small numbers of viewers)

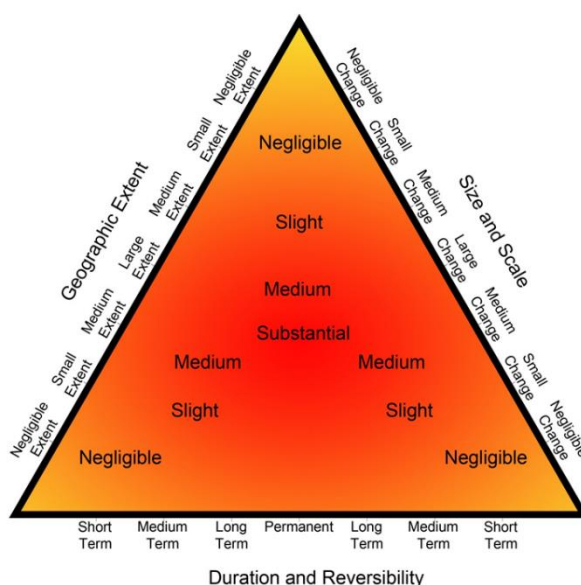
27. The duration and reversibility of visual effect will be recorded at various scales, from short-term, medium-term, long-term and permanent, in accordance with the considerations set out in the table below.

Duration and Reversibility of Visual Effects	Considerations
Permanent	Change that will last for over 25 years and is deemed permanent or irreversible.
Long term	Change that will endure for between 10 and 25. This may include change which is deemed reversible.
Medium term	Change that will last for up to 10 years. This may include change which is deemed reversible.

Duration and Reversibility of Visual Effects	Considerations
Short term	Change that will last from 0 to 5 years. This may include change which is deemed reversible.

28. The overall magnitude of effect on visual receptor will be judged by combining the considerations of size or scale, geographical extent of the area influenced and duration and reversibility. The table below provides an indication of how these judgements might be combined and should be reviewed in conjunction with the more detailed guidance set out in GLVIA 3.

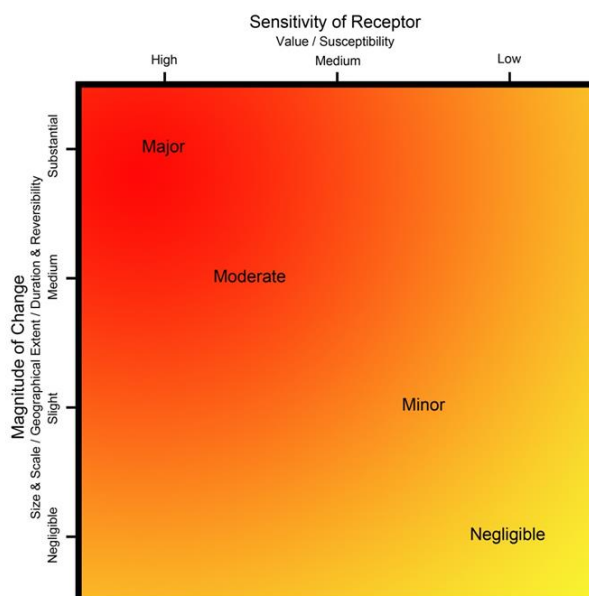
Figure 5
Determining the Magnitude of Visual Change



Significance of Visual Effects

29. The separate judgements about sensitivity of visual receptors and the magnitude of visual effects will then be combined to allow a final judgement to be made about whether each effect is significant.
30. The table below provides an indication of how these judgements might be combined and should be reviewed in conjunction with the more detailed guidance set out in GLVIA 3.

Figure 6
Assessment of Visual Effects and Overall Significance



31. Major and major / moderate effects are considered to be significant visual effects. Those effects of moderate or lower category are generally considered to be not significant. A summary of considerations for each category of effect is set out in the table below.

Significance of Visual Effects	Considerations
Major	Large size or scale of change to views (introducing new, non-characteristic, discordant or intrusive elements), over a large geographical extent, on a long-term or permanent basis, on people who have a high susceptibility to the type of change proposed and are at recognised or important viewpoints (or scenic routes) which are nationally or internationally valued.
Moderate	Medium size or scale of change to views (introducing new elements which are similar to existing), over a medium geographical extent, on a medium to long-term basis, on people who have a medium susceptibility to the type of change proposed and are at recognised viewpoints of national or local value.
Minor	Small size or scale of change to views (involving features already present in views), over a small geographical extent, of short duration, on people who have a low susceptibility to the type of change proposed and are at viewpoints which are of local or community value.
Negligible	Negligible size or scale of change to views, over a negligible geographical extent and of short duration, on people who have a negligible susceptibility to the type of change proposed and are at viewpoints which are of community or low value.

LANDSCAPE PLANNING POLICIES

Landscape Planning Policies

1. This appendix summarises the following planning documents which are considered relevant to the landscape and visual assessment:
 - National Planning Policy Framework (NPPF) and Planning Practice Guidance, in particular the section relating to Minerals; and
 - Barnsley's Local Plan (adopted by Full Council on 3 January 2019).

National Planning Policy Framework (2021)

2. National Planning Policy guidance is set out in the National Planning Policy Framework (NPPF). The NPPF was accompanied by a 'Technical Guidance' document which provided guidance relating to Flood Risk (formerly contained in PPS25) and minerals (formerly contained in MPS1 and MPS2). This has since been revoked and replaced by the internet-based Planning Practice Guidance (PPG).
3. At the heart of the NPPF is a presumption in favour of sustainable development and there is reference to recognising the intrinsic character and beauty of the countryside and that good design is a key aspect of sustainable development.
4. Planning policies and decisions should aim to ensure that developments "*function well and add to the overall quality of the area.....are visually attractive as a result of good architecture, layout and appropriate and effective landscaping...are sympathetic to local character and history...*" (p130).
5. NPPF also makes reference to "*protecting and enhancing valued landscapes...*" (para 174) and that when preparing Local Plans, Local Planning Authorities should put in place policies to "*ensure worked land is reclaimed at the earliest opportunity, taking account of aviation safety, and that high quality restoration and aftercare of mineral sites takes place*" (para 210).
6. The NPPF also indicates that the Government attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence.

Barnsley's Local Plan

7. Barnsley's Local Plan provides local planning policy for the future development of Barnsley up to the year 2033. The Local Plan objectives seek to:
 - Provide opportunities for the creation of new jobs and protection of existing jobs;
 - Improve the conditions in which people live, work, travel and take leisure;
 - Widen the choice of high quality homes;
 - Improve the design of development; and
 - Protect and enhance Barnsley's environmental assets and achieve net gains in biodiversity.
8. Policy D1 High Quality Design and Place Making, sets out Design Principles, describing how "*Development is expected to be of high quality design and will be expected to respect, take advantage of and reinforce the distinctive, local character and features of Barnsley, including:*

Landscape character, topography, green infrastructure assets, important habitats, woodlands and other natural features; Views and vistas to key buildings, landmarks, skylines and gateways; and Heritage and townscape character including the scale, layout, building styles and materials of the built form in the locality."

9. Policy LC1 Landscape Character states that *"Development will be expected to retain and enhance the character and distinctiveness of the individual Landscape Character area in which it is located (as set out in the Landscape Character Assessment of Barnsley Borough 2002 and any subsequent amendments). Development which would be harmful to the special qualities of the Peak District National Park will not be allowed."*
10. Carlton Main Brick Works is allocated as existing site MIN1 with planning permission for the extraction of minerals: *"This consists of the Carlton Main Brickworks which was originally part of the Grimethorpe Colliery complex but is now a separate operation. Clays and shales are extracted from an area to the east of the works to produce bricks, and the plant is a significant local employer."*
11. The local plan also identifies the western part of the existing Carlton Main Brickworks as a Biodiversity or Geological Interest Site (recognised as having biodiversity and/or geological value) and the north-eastern corner as safeguarded land for development (Area SL9).
12. In addition, there is an allocated Area of Search for new minerals: Site MINAS1 Carlton Main Brick extending over the proposed extension area and also to the east up to the cemetery and residential area around Oak Street and is described as follows: *"The future reserves for the brickworks are in the form of the existing area of permission which contains as yet unworked reserves and an adjacent Area of Search. A planning permission granted in 1993 includes the restoration of the quarry and the retention of a geological exposure which forms a Site of Special Scientific Interest within the quarry."*
13. Policy MIN4 Mineral Extraction states that *"Proposals for mineral extraction must not have unacceptable adverse impacts on the natural and historic environment or on human health including those from: inter alia Visual intrusion;"*
14. The proposed extension area is also designated as Green Space (parks and open spaces, play areas, sports pitches, local natural areas and cemeteries) and there is a Green Way identified along the bridleway which is located to the east of the existing site and proposed extension area.
15. The existing site and proposed extension area both covered by Green Belt (land to be kept mainly free from development).

LANDSCAPE CHARACTER ASSESSMENTS

1. This appendix presents a summary of the relevant published assessments relating to the application site and surrounding area. These wider character assessments are then used to provide the context for the local scale landscape assessment for the application site, which is based on additional desk-based analysis and fieldwork.

National Character Areas

2. The application site lies within the central part of National Character Area (NCA) 38 – Nottinghamshire, Derbyshire and Yorkshire Coalfield, an area that is described as having seen great change over the past few centuries from widespread industrialisation and development. A generally low-lying area, with hills and escarpments above wide valleys, the landscape embraces major industrial towns and cities as well as villages and countryside.

The published key characteristics are as follows:

- *A low-lying landscape of rolling ridges with rounded sandstone escarpments and large rivers running through broad valleys, underlain by Pennine Coal Measures.*
- *Local variations in landscape character reflecting variations in underlying geology.*
- *Several major rivers flow through the rural and urban areas of the NCA, generally from west to east in broad valleys.*
- *A mixed pattern of built-up areas, industrial land, pockets of dereliction and farmed open country.*
- *Small, fragmented remnants of pre-industrial landscapes and more recent creation of semi-natural vegetation, including woodlands, river valley habitats and subsidence flashes, with field boundaries of clipped hedges or fences.*
- *Many areas affected by urban fringe pressures creating fragmented landscapes, some with a dilapidated character, separated by substantial stretches of intact agricultural land in both arable and pastoral use.*
- *A strong cultural identity arising from a history of coal mining, steel making and other heavy industry which resulted from the close relationship between underlying geology and resource availability, notably water power, iron ore and coal.*
- *Features of industrial heritage such as mills, goits, tips, old railway lines, canals and bridges are evident, along with former mining villages.*
- *Many large country houses and estates established by wealthy industrialists in the 18th and 19th centuries and ancient monuments create focal points and important recreational opportunities within the landscape, such as Bretton Hall, Wentworth, Woodhouse, Temple Newsam, Nostell Priory, Bolsover Castle and the ruins of Codnor Castle.*
- *Extensive urbanisation, such as in the major cities of Leeds and Sheffield, with terraced and back-to-back housing and grand 19th-century municipal buildings and churches at their centres, now surrounded by extensive housing and industrial development.*
- *Widespread influence of transport routes, including canals, roads and railways, with ribbon developments emphasising the urban influence in the landscape.*

- An extensive network of multi-user trails on former railway lines and canal towpaths, such as the Trans Pennine Trail and the Ebor Way.
- Continuing development pressure including land renewal and regeneration projects, especially along river corridors and around towns.

Local Landscape Character Assessments

3. The Barnsley Landscape Character Assessment (2002) describes the extension area as located within the E3 Settled Wooded Farmland – Grimethorpe Settled Wooded Farmland with the western part of the existing brickworks site being located within C2 Lowland River Floor Lower Dearne Lowland River Floor”.
4. The Dearne Valley is described on the Dearne Valley Green Heart Landscape Partnership website (<https://discoverdearne.org.uk/about/>) as “an excellent example of an ‘everyday’ formerly industrialised landscape which nevertheless contains rich cultural heritage, biodiversity, recreational use and has an important role as the daily surroundings for its resident population. It is in the eastern Pennine foothills of South Yorkshire, between the towns of Barnsley, Rotherham and Doncaster. The Valley follows the River Dearne and is a semi-rural landscape.”
5. A Landscape Character Assessment (LCA) of the Dearne Valley was commissioned from Fiona Fyfe Associates in February 2012, which identified the following key characteristics:
 - Widespread evidence of industrial activity including mine buildings, former spoil tips and iron and steel plants.
 - Complex mix of built-up areas, industrial land, dereliction and farmed open country.
 - Many areas affected by urban fringe pressures creating fragmented and downgraded landscapes.
 - Substantial areas of intact agricultural land in both arable and pastoral use.
 - Small, fragmented remains of pre-industrial landscape and semi-natural vegetation, including many areas of woodland, river valley habitats, subsidence flashes and other relict habitats.
 - Ever-present urban influences from major cities, smaller industrial towns and mining villages.
 - Widespread influence of transport routes including canal, road, and rail, with ribbon developments emphasising the urban influence in the landscape.
 - Rolling landforms with hills, escarpments and broad valleys.
 - Local variations in landscape character reflecting underlying geology.
 - Strong cultural identity arising from history of coal mining and other heavy industry.
6. The Dearne Valley Landscape Character Assessment identified several Landscape Character Types (LCTs) with the site being located within the ‘Wooded Coalfield Farmland’ LCT. This LCT is generally associated with more elevated land and has the following key characteristics:
 - Underlying sandstone and shale ‘coal measures’ geology. Rolling landform containing steeper slopes and the areas of highest relief (up to 130m above sea level).
 - Occasional streams (often tree-lined) which flow into the Dearne river system.
 - Extensive tree cover and large woodland blocks, including Wombwell Wood, Howell Wood and West Haigh Wood. Also smaller copses, shelterbelts, mature hedgerows and hedgerow trees.

- *A mixture of arable and pastoral land uses, within fields which are generally smaller and more irregularly shaped than those of the Open Coalfield Farmland.*
- *Woodlands, streams, hedgerows and field boundaries provide valuable semi natural habitats.*
- *Historic features visible within the landscape include ancient woodlands, commons and fields.*
- *Archaeological sites from various periods, often associated with woodland.*
- *Settlement generally limited to scattered farms and to 20th Century pit villages such as Grimethorpe. The towns of Hoyland and Wombwell also sit within this LCT.*
- *Visual impacts of industrial heritage (mines, tips etc) and of major road corridors which run through and adjacent to this LCT.*
- *An historic landscape with a strong sense of time-depth.*
- *Influences of the Wentworth Woodhouse Estate to the south of Hoyland*

Landscape Attributes of the Existing Site and Immediate Surroundings

7. The landscape attributes of the application site and the immediate surroundings have been examined below. A detailed site description is also provided within the Environmental Statement.

Natural Characteristics

8. The site extends over the 24ha operational brick clay quarry, brickmaking raw materials stockpiling areas, soil storage and landfill, with the 3.7ha proposed extension area consisting of previously worked and restored open cast land (New Park Springs Spoil Tip) which has established grassland, scrub and trees.
9. Contours within the site range from 26m AOD in the quarry floor to 76m AOD around the quarry rim to the north-east and 48m AOD to the south-west, whilst the extension area slopes from 66m AOD in the west down to 52m AOD in the east.
10. The approved restoration scheme consists of landfilling the quarry void to a relatively gently sloping valley side, from 75m AOD down to 45m AOD (west to east) and with a landcover of proposed woodland, amenity grassland and acid grassland. The brickmaking raw materials stockpiling areas is retained for continued use by the adjacent factory (presumably utilising imported materials).
11. The surrounding landform context is defined by a broad river valley orientated north to south, with the site situated on the eastern slopes. Higher ground defines the valley around Cudworth to the west (at 75m AOD), Lees Hill to the south-west (at 100m AOD) and West Haigh Wood and Houghton Common to the east (at 110m AOD). The valley floor lies at c30m AOD associated with a tributary of the River Dearne.
12. The land cover within the study area is mixed and includes Ancient Woodland on elevated ground around Lady Wood and West Haigh Wood to the east, to younger woodland and tree belts on the restored colliery land to the south and west and associated with the road corridor and areas of open water and marshland in the valley floor to the south.

Cultural and Social Aspects

13. As noted above, the application site includes the existing clay pit and part of the former colliery, with the brickworks factory located adjacent to the west and the village of Grimethorpe to the north. The A6195 follows the lower valley sides and connects settlements, commercial and industrial developments (with a new industrial facility west of the road, opposite the entrance to the Carlton Main brickworks site).
14. Allotments, cemetery and the Ladywood First school form part of the built-up residential edge of Grimethorpe to the north.
15. The extension area extends over part of New Park Springs, a 56ha country park managed by Land Trust (also designated as Green Space in the Barnsley Local Plan) located on the former Grimethorpe Colliery with a network of publicly accessible tracks and trails and promoted to visitors on a website. The area is well used but showing signs of urban fringe pressures (such as litter and vandalism).
16. Cudworth Common is a 66ha country park south of the A6195, also located on the former Grimethorpe Colliery with a network of publicly accessible tracks and trails and promoted to visitors on a website.
17. The study area is settled, with Great Houghton (Houghton Green and Little Houghton) at c1km to the south-east, Cudworth (and Upper Cudworth) at 2km to the west and Ardsley (and Lees Hill) at 2km to the south-west. Scattered farmsteads and individual properties are also present in the surrounding area being accessed by the local road network, including:
 - West Haigh Lodge and Hargate House at 1km to the north-east;
 - Middle Farm and Edderthorpe at 2km to the south;
 - Crook House Farm at 1km to the south-west and Tyers Hall Farm and Wood Laithes Farm at 2km to the south-west; and
 - Storrs Mill and Storrs Mill Farm at 1km to the west.
18. The nearest Listed Building is c1km away at Bridge Farm on the eastern edge of Grimethorpe and Hall Steads is a scheduled monument at 1km to the north-east.
19. Several wind turbines at Park Springs Wind Farm on part of the restored colliery to the south.
20. Recreational routes and facilities in the local area include the following:
 - North of the Cudworth Common site is Ferrymoor Flash, a small lake which is separated from the main part of the Land Trust's site;
 - Adjacent to the south of Cudworth Common is RSPB's Edderthorpe Ings reserve, which is promoted on their website as marshland, with shrub and tree habitat and a legacy of the coal.
 - Bridleway (No 31) passes the eastern boundary of the site (also designated as a Green Way in the Barnsley Local Plan) and connects with Grimethorpe to the north (Bridleway 55) and with Great Houghton (Bridleway 5) to the south-east and Little Houghton (Bridleway 3) to the south;
 - Barnsley Boundary Walk extends around the northern and eastern edge of Grimethorpe and connects to Clayton 3km to the east of the site. This circular long distance path covers 72 miles in total; and

- Dearne Way extends over the river valley at 2km to the south-west of the site. This long distance path covers 32 miles in total.

Aesthetic and Perceptual Aspects

21. The aesthetic and perceptual qualities of the application site and local area are summarised in Table 1, being divided into the main categories identified within recognised guidance².
22. In summary, the existing operational brick clay quarry (and ancillary development) is large-scale, enclosed by landform, woodland / tree belts and built development, whilst the extension area forms part of the large-scale country park (on the restored colliery), enclosed by landform and woodland / tree belts. Being on the west sloping valley side the site is more open to the west and visible from rising ground on the opposite side of the valley. The traffic along the A6195 road corridor in conjunction with the operational quarry and adjacent industrial and commercial areas provide noise and reduces tranquillity within and around the extension area, at certain times. The land cover of the restored colliery is generally simple and of muted greens and browns, whilst the operational quarry is more complex, albeit with earthy colours of the benches, steep slopes and stockpiles.

Table 1
Aesthetic and Perceptual Attributes of Application Site and Study Area

Generic Aesthetic Attributes	Description of Attributes for Site and Study Area
Scale	The existing mineral workings are large scale, but formed of small to medium scale benches and slopes, enclosed by woodland/tree belts to the north and east and built-up areas to the west. The brick-making raw materials stockpile area and adjacent brickworks has medium to large-scale built elements and hardstanding. After restoration the quarry voids would be landfilled to a medium to large scale sloping valley side, with a mosaic of woodland and grassland habitats, although the brick-making raw materials stockpile area is identified for continued use. The grassland and woodland plantations on the extension area forms part of the medium to large scale restored colliery New Park Springs country park. Large-scale woodland extends over the higher ground the east, around West Haigh Wood. The busy A6195 corridor is medium to large scale and a distinctive element, extending north to south, connecting settlements, commercial and industrial developments.
Enclosure	The site is enclosed by landform (with the workings set down in the void), woodland / tree belts and built development (brickworks to the west and Grimethorpe to the north). However, being on the west sloping valley side the site is more open to the west and visible from rising ground on the opposite side of the valley. The operational brick clay workings and adjacent brickworks factory are enclosed by a pallisade security fence. In the wider area, the undulating landform and woodland cover creates a variety of enclosure, with the hill tops possessing wide open views in many cases.

2 Landscape Character Assessment – Countryside Agency and Scottish Natural Heritage (2002) – Paragraph 5.12

Generic Aesthetic Attributes	Description of Attributes for Site and Study Area
	The perceptual and special qualities section of Wooded Coalfield Farmland LCT refers to how the trees and woodlands <i>“create an increased sense of enclosure and intimacy over much of the LCT, although there are some long views, especially from higher ground.”</i>
Diversity	The existing active mineral workings and ancillary areas (including brick-making raw material stockpiles) are diverse at a local scale. After landfilling and restoration, the subsequent grassland and woodland cover would be simpler. The grassland and woodland on the restored colliery and extension area is generally simple. At a wider scale the settled, diverse landscape has a variety of old and new land uses and activities, including the busy A6196 and commercial and industrial areas, modern wind turbines and RSPB’s Edderthorpe Ings wetland reserve to the south. The perceptual and special qualities section of Wooded Coalfield Farmland LCT refers to how the <i>“More recent colliery restorations have added to the woodland cover, providing further variation in the landscape”</i>.
Texture	The operational quarry areas are roughly textured, whereas once restored these areas will be textured (grassland and woodland) and be similar to the extension area and New Park Springs restored colliery. The woodland, properties, settlement and industrial areas and busy A6196 add further localised roughness, whilst areas of open water at RSPB’s Edderthorpe Ings wetland reserve introduce smooth elements. The perceptual and special qualities section of Wooded Coalfield Farmland LCT refers to how the <i>“trees and woodlands also give a strong texture”</i>.
Form and Line	The existing mineral workings and ancillary development are angular and include horizontal and vertical planes, with straight lines (from benches, steep slopes and stockpiles). Much of this will be hidden after restoration, when the site is landfilled and concealed by the sloping ground. The subsequent shape of the woodland planting will be irregular and similar to the restoration treatments on the new Park Springs former colliery (and apparent on the extension area). The undisturbed topography in the study area is more gently rolling / sloping, with hedgerows and field boundaries which have a regular form and line. The settlements, commercial and industrial properties are angular and with engineered built-form. The hill tops in the wider area include curved lines and form, relating to the undulating topography. The “Wooded Coalfield Farmland” LCT refers to <i>“Rolling landform containing steeper slopes”</i>.
Colour	The existing mineral workings are muted earthy browns and lighter greys and are anticipated to become greener as the site is restored and vegetation establishes. The land cover within the extension area and the adjacent areas of New Park Springs restored colliery is mainly muted greens and browns, with darker colours of the woodland and tree cover. The ancillary development and commercial and industrial development to the west is grey and darker metallic tones and surfaces, whilst residential properties to the north are red and brown bricks and roof tiles. Traffic within and around the site and on the road network provides more colourful and contrasting elements in the local area landscape.

Generic Aesthetic Attributes	Description of Attributes for Site and Study Area
Balance	The operational quarrying and ancillary development provides localised disorder, but in the context of the highly settled landscape and adjacent commercial and industrial. After restoration the result will be a more balanced landscape cover of grassland and woodland mosaic. The grassland woodland in the extension and the adjacent areas of New Park Springs restored colliery are relatively balanced. Traffic on the road network and the wind turbines to the south provide more contrasting elements, resulting in a generally an unbalanced landscape due to the varied large scale land uses.
Movement	The operational workings have busy movements, to varying degrees from vehicles and plant, during working hours. Once restored these areas will be generally still, albeit with movement from occasional machinery carrying out maintenance and the ongoing use of the brick-making raw materials stockpile area, adjacent to the west. The wind turbines to the south are moving elements in the landscape. The traffic along the A6196 corridor provides noise at certain times and reduces tranquillity within and around the site area. Off the main routes, much of the local area is less well used.
Pattern	The existing mineral workings and ancillary development have an organised pattern, related to the regular arrangement of benches and steep slopes. The restored areas will appear less organised as informal sloping grassland and woodland. The ongoing use of the brick-making raw materials stockpile areas will continue to be an organised activity. The surrounding areas are in a generally organised, with main settlements on the higher valleysides. A varied landcover pattern appears to relate appropriately to the broad valley landform. The A6196 however, cuts through the area along a straight / diagonal line and is discordant to the underlying pattern.

Classification of the Existing Site and Immediate Surroundings

23. The analysis of existing landscape attributes has concluded that the study area is generally consistent with the published key characteristics in the various aforementioned documents at the beginning of this appendix.
24. At a local level, the application site is classified as “Operational Brick Clay Quarry with Ancillary Stockpiles” with the extension area as “Sloping Amenity Grassland and Woodland Mosaic”.
25. Following final restoration in accordance with the approved scheme, it is anticipated that the local classification of the site would become “Sloping Amenity Grassland and Woodland Mosaic”.

METHOD STATEMENT FOR ZTVS

1. Comparative Zone of Theoretical Visibility (ZTV) calculations have been undertaken using site specific design models and survey data in combination with OS Terrain 5 (for the surrounding digital terrain in LSS software (McCarthy Taylor).
2. The ZTV results are based on topography only and do not take account of the screening effects of any buildings or vegetation:
 - using the design model for the Phase 4 extraction model, which includes the existing quarry and the extension area, as shown on Drawing 6/2; and
 - using the existing topography in the extension area only, as shown in Drawing 6/3.
3. The receptor point grid interval was set to 25m, with a 1.6 eye height (above the digital terrain model) and covered an area of approximately 4km radius from the site boundary.
4. The following target points were positioned across the Phase 4 extraction model and used for the first ZTV:
 - E 441136.796, N 408411.313, 37.158 m AOD;
 - E 441401.802, N 408078.210, 33.881 m AOD;
 - E 441554.407, N 407937.912, 47.641 m AOD;
 - E 441715.215, N 407875.558, 55.158 m AOD;
 - E 441655.322, N 408065.082, 63.271 m AOD;
 - E 441694.704, N 408112.669, 62.220 m AOD;
 - E 441656.143, N 408194.714, 61.000 m AOD;
 - E 441506.820, N 408384.238, 56.660 m AOD;
 - E 441362.421, N 408334.191, 33.593 m AOD;
 - E 441474.002, N 408189.791, 33.225 m AOD; and
 - E 441589.686, N 408005.189, 35.047 m AOD.
5. The following target points were positioned across the extension area and used for the second ZTV:
 - E 441545.130, N 407921.842, 56.142 m AOD;
 - E 441745.663, N 407858.858, 56.759 m AOD;
 - E 441663.690, N 408069.116, 66.163 m AOD;
 - E 441566.434, N 408040.402, 35.000 m AOD;
 - E 441652.575, N 407944.072, 37.442 m AOD;
 - E 441641.923, N 408049.202, 50.644 m AOD;
 - E 441705.371, N 407892.666, 47.169 m AOD; and
 - E 441496.965, N 408014.930, 45.987 m AOD.

INDIVIDUAL VIEWPOINT ASSESSMENT

1. This appendix provides an analysis of the existing views and predicted changes to the individual representative viewpoints.

Viewpoint 1 – A6195 by Grimethorpe Colliery Roundabout junction leading to Grimethorpe and site access

2. Viewpoint 1 is situated on A6195 by Grimethorpe Colliery Roundabout junction leading to Grimethorpe and the site access. Visual receptors at this viewpoint are primarily road users.
3. Road users at this location have a low sensitivity to the type of change proposed, due to the following:
 - low susceptibility of road users (travellers where the view is incidental to journey); and
 - low value views (no formal planning status, not associated with designated or otherwise high-quality landscapes, etc).
4. The viewpoint is in the “Lowland Valley Floor” LCT. Refer to Drawing 6/4 for a panoramic photographic record of the existing views, and which shows a modern, busy road corridor, with pavement and tree planting. Commercial and industrial development are located both sides of the road.
5. The proposed development would be hidden behind the intervening buildings and vegetation, west of the site. Any changes to vehicle movements are not anticipated to be noticeable and/or change the views or visual amenity along this route. Thus, there would be no change to views and visual amenity at this location.

Viewpoint 2 – Barnsley Bridleway No. 31 east of the site

6. Viewpoint 2 is situated on Barnsley Bridleway No. 31 east of the site. Visual receptors at this viewpoint are primarily recreational visitors to this route, which is also a Green Way in the Barnsley Local Plan (and part of the Green Belt).
7. Recreational visitors at this location would have a medium to high sensitivity to the type of change proposed, due to the following:
 - high susceptibility of people engaged in outdoor recreation where their attention is likely to be focused on the landscape and countryside views; and
 - community level value views (Positioned within Green Belt and along a Green Way) and where the landscape and views generally form a recognised part of the visitor experience).
8. The viewpoint is within the “Wooded Coalfield Farmland” LCT. Refer to Drawing 6/5 for a panoramic photographic record of existing views, and the bridleway corridor which is enclosed by mature trees and hedgerows. Glimpsed views of the existing quarry’s palisade security fence is apparent between a gap in the vegetation, although the site / quarry workings are hidden. Wooden pole / overhead lines follow the route of the bridleway.
9. The proposed development would be completely screened by the intervening vegetation. Thus, there would be no change to views and visual amenity at this location.

Viewpoint 3 – New Park Springs Country Park east of site

10. Viewpoint 3 is located within the New Park Springs Country Park east of the site. Visual receptors at this viewpoint are primarily recreational walkers. This location is also designated as Green Space in the Barnsley Local Plan and is part of the Green Belt.
11. Recreational visitors at this location would have a medium to high sensitivity to the type of change proposed, due to the following:
 - high susceptibility of people engaged in outdoor recreation where their attention is likely to be focused on the landscape and countryside views; and
 - community level value views (located within the Green Belt and part of an area of Green Space and where the landscape and views generally form a recognised part of the visitor experience).
12. The viewpoint is located in the “Wooded Coalfield Farmland” LCT. Refer to Drawing 6/6 and 6/7 for a panoramic photographic record of existing views, and which shows elevated and long-distance views over the lowland valley floor. The existing brick clay workings, fencing and factory development are apparent, with commercial and industrial development also visible west of the site. The former colliery workings have been restored to rolling grassland and trees and there are operational wind turbines on land to the south. There is evidence of litter and vandalism, with the fence in a state of disrepair and some erosion of the slope.
13. The proposed development would necessitate the re-alignment of the palisade security fence to cross in front of the view, with advance tree and shrub planting behind. There would then be a delay whilst the existing site is worked out before the extension area is cleared (sections of trail, an area of amenity grassland, tree plantations and natural regeneration would then all be removed from the lower-lying part of the restored colliery / Green Space in the middle ground). The main area of restored spoil tip to the south-west would be undisturbed.
14. The reduction in the amount of landfilling and modification to the approved restoration scheme, to retain steeper slopes on the northern side of the site would be apparent (at c500m away), but similar to existing and set down (with mature woodland behind and on the ridge above). The quarry slopes would continue to weather and ‘green up’ through natural regeneration of vegetation.
15. The magnitude of change to the view and visual amenity would be medium and adverse initially during construction, becoming slight and neutral as the tree planting treatments mature:
 - the size or scale of change to views would be medium resulting from the re-alignment of the palisade fence followed by advance planting. Longer distance views over the top of the fence would be unaffected, until the tree and shrub planting matures. The extension of the quarry workings would be restricted and use elements already existing in the view (exposed steep slopes and moving machinery, followed by restoration of grassland and woodland, with wetland in the base);
 - the geographical extent would be large, as the development would occupy a wide angle of view in relation to main activity of the receptor; and
 - the duration of fencing construction would be short-term, with advance planting to provide a long-term / permanent feature as it establishes.
16. Thus, the overall potential effect relating to the changes to views and visual amenity upon recreational visitors would be moderate and adverse during construction and early phases, but becoming moderate / minor and neutral as the advance tree and shrub belt establishes and matures.

Viewpoint 4 – New Park Springs Country Park south-east of site

17. Viewpoint 4 is located on a trail within the New Park Springs Country Park south-east of the site. Visual receptors at this viewpoint are primarily recreational walkers. This location is also designated as Green Space in the Barnsley Local Plan and is part of the Green Belt.
18. Recreational visitors at this location would have a medium to high sensitivity to the type of change proposed, due to the following:
 - high susceptibility of people engaged in outdoor recreation where their attention is likely to be focused on the landscape and countryside views; and
 - community level value views (located within the Green Belt and a Green Space) and where the landscape and views generally form a recognised part of the visitor experience).
19. The viewpoint is located in the “Wooded Coalfield Farmland” LCT. Refer to Drawing 6/7 for a panoramic photographic record of existing views, and which shows enclosed woodland views and small tracks and trails over part of the restored colliery land. The existing brick clay workings, fencing and factory development are all hidden at this location.
20. The proposed development would necessitate the construction of palisade security fence to cross in front of the view, with advance tree and shrub planting behind. There would then be a delay whilst the existing site is worked out before the extension area is cleared (sections of trail, an area of amenity grassland, tree plantations and natural regeneration would then all be removed from part of the restored colliery / Green Space in the middle ground). The main area of restored spoil tip to the south-west would be undisturbed, as would the mature trees to the north.
21. The magnitude of change to the view and visual amenity would be medium and adverse initially during construction, becoming slight and neutral as the tree planting treatments mature:
 - the size or scale of change to views would be medium resulting from the addition of the palisade fence followed by advance planting. As the tree and shrub planting matures, views of the extension of the quarry workings would be restricted, albeit with new elements added to the view during operations (exposed steep slopes and moving machinery) but similar elements after restoration (grassland and woodland, with wetland in the base);
 - the geographical extent would be medium to large, as the development would occupy a moderate angle of view in relation to main activity of the receptor, but in the foreground; and
 - the duration of fencing construction would be short-term, with advance planting to provide a long-term / permanent feature as it establishes.
22. Thus, the overall potential effect relating to the changes to views and visual amenity upon recreational visitors would be moderate and adverse during construction, becoming moderate / minor and neutral as the advance tree and shrub belt establishes and matures.

Viewpoint 5 – New Park Springs Country Park south-west of site

23. Viewpoint 5 is located on a trail within the New Park Springs Country Park south-west of the site. Visual receptors at this viewpoint are primarily recreational walkers. This location is also designated as Green Space in the Barnsley Local Plan and is part of the Green Belt.
24. Recreational visitors at this location would have a medium to high sensitivity to the type of change proposed, due to the following:
 - high susceptibility of people engaged in outdoor recreation where their attention is likely to be focused on the landscape and countryside views; and
 - community level views (located within the Green Belt and a Green Space) and where the landscape and views generally form a recognised part of the visitor experience).
25. The viewpoint is located in “Wooded Coalfield Farmland” LCT. Refer to Drawing 6/9 for a panoramic photographic record of existing views, and which shows partly enclosed woodland views over undulating restored colliery land and rising valley sides. Part of the existing brick clay workings, fencing and factory development are all apparent and forming a backdrop at this location, with woodland on the skyline behind.
26. The proposed development would necessitate the re-alignment of the palisade security fence to cross in front of part of the view (at 50m away), with advance tree and shrub planting behind. There would then be a delay whilst the existing site is worked out before the extension area is cleared (sections of trail, an area of amenity grassland, tree plantations and natural regeneration would then all be removed). However, the foreground woodland vegetation would be undisturbed and this is anticipated to screen the majority of the workings, other than the higher eastern slopes. The quarry slopes would continue to weather and ‘green up’ through natural regeneration of vegetation.
27. The reduction in the amount of landfilling and modification to the approved restoration scheme, to retain steeper slopes on the northern and eastern side of the site would be apparent (at c500m away), but similar to existing and set down (with mature woodland behind and on the ridge above).
28. The magnitude of change to the view and visual amenity would be slight and adverse initially during construction, becoming slight and neutral as the tree planting treatments mature:
 - the size or scale of change to views would be small resulting from the re-alignment of the palisade fence followed by advance planting over a small proportion of the view. The majority of the intervening vegetation would be retained and screen the development;
 - the geographical extent would be small, as the visible parts of the development would occupy a narrow angle of view in relation to main activity of the receptor, due to the intervening vegetation; and
 - the duration of fencing construction would be short-term, with advance planting to provide a long-term / permanent feature as it establishes. Glimpsed views of extraction on the upper slopes would be short-term.
29. Thus, the overall potential effect relating to the changes to views and visual amenity upon recreational visitors would be moderate /minor and adverse during construction, becoming moderate / minor and neutral as the advance tree and shrub belt and upper restored slopes establish and mature.

Viewpoint 6 – New Park Springs Country Park south of site

30. Viewpoint 6 is located on a trail within the New Park Springs Country Park south of the site. Visual receptors at this viewpoint are primarily recreational walkers. This location is also designated as Green Space in the Barnsley Local Plan and is part of the Green Belt.
31. Recreational visitors at this location would have a medium to high sensitivity to the type of change proposed, due to the following:
- high susceptibility of people engaged in outdoor recreation where their attention is likely to be focused on the landscape and countryside views; and
 - community level views (located within the Green Belt and a Green Space) and where the landscape and views generally form a recognised part of the visitor experience).
32. The viewpoint is located in “Wooded Coalfield Farmland” LCT. Refer to Drawing 6/10 for a panoramic photographic record of existing views, and which shows partly enclosed woodland views over undulating restored colliery land and rising valley sides. The existing brick clay workings, fencing and factory development are all apparent at this location.
33. The proposed development would necessitate the re-alignment of the palisade security fence to cross in front of the view, with advance tree and shrub planting behind. There would then be a delay whilst the existing site is worked out before the extension area is cleared (sections of trail, an area of amenity grassland, tree plantations and natural regeneration would then all be removed from the lower-lying part of the restored colliery / Green Space in the middle ground). However the foreground woodland vegetation would be undisturbed and this is anticipated to screen the majority of the workings behind.
34. The reduction in the amount of landfilling and modification to the approved restoration scheme, to retain steeper slopes on the northern and eastern side of the site would be apparent (at 500m away), but similar to existing and set down (with mature woodland behind and on the ridge above). The quarry slopes would continue to weather and ‘green up’ through natural regeneration of vegetation.
35. The magnitude of change to the view and visual amenity would be slight and adverse initially during construction, becoming slight and neutral as the tree planting treatments mature and also after final restoration:
- the size or scale of change to views would be small resulting from the re-alignment of the palisade fence followed by advance planting over a small proportion of the view. The majority of the intervening vegetation would be retained and screen the development. The alteration to the restoration scheme would be a small change;
 - the geographical extent would be small, as the visible parts of the extension area would occupy a narrow angle of view in relation to main activity of the receptor, due to the intervening vegetation. The retained steeper slopes in the existing quarry after restoration would also be small extent of the view; and
 - the duration of fencing construction would be short-term, with advance planting to provide a long-term / permanent feature as it establishes. The final restoration is permanent.
36. Thus, the overall potential effect relating to the changes to views and visual amenity upon recreational visitors would be moderate / minor and adverse during construction, becoming moderate / minor and neutral as the advance tree and shrub belt establishes and matures and after final restoration.

Viewpoint 7 – New Park Springs Country Park – by memorial

37. Viewpoint 7 is located on a trail within the New Park Springs Country Park by the memorial. Visual receptors at this viewpoint are primarily recreational walkers. This location is also designated as Green Space in the Barnsley Local Plan and is part of the Green Belt.

Recreational visitors at this location would have a medium to high sensitivity to the type of change proposed, due to the following:

- high susceptibility of people engaged in outdoor recreation where their attention is likely to be focused on the landscape and countryside views; and
 - medium / Local authority value views (located within the Green Belt and a Green Space) and where the landscape and views generally form a recognised part of the visitor experience).
38. The viewpoint is located in “Wooded Coalfield Farmland” LCT. Refer to Drawing 6/11 for a panoramic photographic record of existing views, and which shows elevated and long-distance views over the lowland valley floor. The existing brick clay workings, fencing and factory development are apparent, along with part of Grimethorpe and Cudworth settlements on the valleysides and commercial and industrial development on the lower, valley floor.
39. The proposed development would necessitate the re-alignment of the palisade security fence and removal of sections of trail, a small area of amenity grassland, tree plantations and natural regeneration, albeit mostly hidden by intervening landform from the crest of the restored colliery spoil tip.
40. The reduction in the amount of landfilling and modification to the approved restoration scheme, to retain steeper slopes on the northern and eastern side of the site would be apparent (at 800m away), but similar to existing and set down (with mature woodland behind and on the ridge above). The quarry slopes would continue to weather and ‘green up’ through natural regeneration of vegetation.
41. The magnitude of change to the view and visual amenity would be slight and adverse initially during construction, becoming slight and neutral as the tree planting treatments mature and also after final restoration:
- the size or scale of change to views would be small resulting from the re-alignment of the palisade fence followed by advance planting over a small proportion of the view. The majority of the intervening landform would be retained and screen the development. The alteration to the restoration scheme would be a small change relating to the retained slopes;
 - the geographical extent would be small, as the visible parts of the extension area would occupy a narrow angle of view in relation to main activity of the receptor, due to the intervening vegetation. The retained steeper slopes in the existing quarry after restoration would also be small extent of the view; and
 - the duration of fencing construction would be short-term, with advance planting to provide a long-term / permanent feature as it establishes. The final restoration is permanent.
42. Thus, the overall potential effect relating to the changes to views and visual amenity upon recreational visitors would be moderate / minor and adverse during construction, becoming moderate / minor and neutral as the advance tree and shrub belt establishes and matures and after final restoration.

Viewpoint 8 – Barnsley Footpath No. 1, at junction with Barnsley Footpath No. 55, near to Horse Carr Wood

43. Viewpoint 8 is located on junction between two public rights of way (Barnsley Footpath No. 1, at junction with Barnsley Footpath No. 55, near to Horse Carr Wood). Visual receptors at this viewpoint are primarily recreational walkers. This location is part of the Green Belt.

Recreational visitors at this location would have a medium to high sensitivity to the type of change proposed, due to the following:

- high susceptibility of people engaged in outdoor recreation where their attention is likely to be focused on the landscape and countryside views; and
 - community value views (located within the Green Belt).
44. The viewpoint is in the “Open Coalfield Farmlands” LCT. Refer to Drawings 6/12 for a panoramic photographic record of existing views, and which shows elevated and expansive long-distance views over lowland valley floor, with enclosure in the direction of the site provided by mature trees and landform, including around New Park Springs, restored spoil heap.

The proposed development would thus be completely screened and there would be no change to the views or visual amenity at this location.

Viewpoint 9 – Barnsley Bridleway No. 10, on edge of Cudworth

45. Viewpoint 9 is situated on Barnsley Bridleway No. 10, on edge of Cudworth. Visual receptors at this viewpoint are primarily recreational visitors and local residents.
46. Local residents and recreational visitors at this location would have a medium to high sensitivity to the type of change proposed, due to the following:
- high susceptibility of residents and people engaged in outdoor recreation where their attention is likely to be focused on the landscape and countryside views; and
 - community value views (Positioned at an urban fringe location on the edge of the Green Belt).
47. The viewpoint is in the “Open Coalfield Farmlands” LCT. Refer to Drawings 6/13 for a panoramic photographic record of existing views, and which shows elevated and framed long-distance views over lowland valley floor. Commercial and industrial development is set down in the valley, with Grimethorpe settlement on the valley side and the existing brick clay workings visible on part of the valleyside. There is some fore- and middle-ground enclosure in the direction of the site provided by mature trees and hedgerows. The landform around part of New Park Springs, restored spoil heap also screens part of the extension area, with a wind turbine also present, providing a detracting element.
48. The reduction in the amount of landfilling and modification to the approved restoration scheme, to retain steeper slopes on the eastern side of the site would be apparent (at 2km away), but similar to existing and set down (with mature woodland behind and on the ridge above). The quarry slopes would continue to weather and ‘green up’ through natural regeneration of vegetation.
49. The magnitude of change to the view and visual amenity would be slight and neutral during continued working and also after final restoration:
- the size or scale of change to views would be small relating to the retained slopes within the existing quarry;

- the geographical extent would be small, as the visible slopes would occupy a narrow angle of view in relation to main activity of the receptor; and
- the duration of operational phases would be long-term overall and restoration permanent.

50. Thus, the overall potential effect relating to the changes to views and visual amenity upon residential and recreational visitors would be moderate /minor and neutral as the slopes continue to weather and are retained after final restoration.