Derbyshire and Derby Minerals Local Plan 2022 – 2038

Heritage Impact Screening of Suggested Sites

January 2023





Contents

1.	Background	1
2.	Egginton	3
3.	Elvaston	5
	Foremark	
5.	Foston	11
6.	Swarkestone North	14
7.	Swarkestone South	17
8.	Twyford	20
9.	Sudbury	23
	Aldwark South	



1. Background

- 1.1 Heritage impact assessments have been carried out on 8 sites being considered for allocation as part of Derbyshire County Council's Minerals Plans process.
- 1.2 Pre-allocation assessment is carried out on the basis of a site boundary only. It establishes whether and where there are likely to be harmful impacts to the significance of heritage assets, considering designated assets and their settings, archaeological assets including earthworks, below-ground archaeology and palaeo-environment/geoarchaeology, and historic landscape character.
- 1.3 It also considers whether there is potential for harmful impacts to be mitigated, for example by landscaping, screening, restoration, staging and duration of extraction, introducing a buffer to the extraction area, up to and including part-allocation of a site with significant omissions.
- 1.4 Pre-allocation assessment cannot however perform the full planning balance in relation to a proposed site and its heritage assets because the details of a particular proposal, proposed mitigation scheme and outweighing public benefits are not currently before the authority.
- 1.5 The current assessment has been based on interrogation of Derbyshire Historic Environment Record (designations, monument records, event records, cropmark plots, palaeo-channel mapping, grey literature) and the National Heritage List for England, publicly available aerial and satellite photography including Google Earth, Maps and Streetview, and on site assessment visits carried out in November 2019 and November-December 2022. Site visits were carried out from publicly accessible locations.
- 1.6 The sites are scored on the following scale:

3: Harms potentially approaching 'substantial harm' to a designated heritage asset or assets, whether direct or through setting. Loss of (known) nationally important archaeological remains.

2: Potential for moderate levels of harm ('less than substantial harm' at higher end) to designated heritage asset(s), including through setting. Loss of (known) regionally important archaeological remains.

1: Potential for minor levels of harm ('less than substantial harm' at lower end) to designated heritage asset(s), including through setting. Loss of (known) locally important archaeological remains.

0: Zero or negligible harm to (known) heritage assets.

- 1.7 In each case there is potential for mitigation to reduce levels of harm to heritage assets and the assessed scores should be seen as worst case, with potential for reduction through appropriate mitigation as per recommendations in text.
- 1.8 The score assessed is a professional judgement based on the limited information available and is not prejudicial to any future planning application(s) for these sites.

2. Egginton

Designated Sites & settings

- 2.1 There are no designations within the proposal site.
- 2.2 Within 1km there are Grade II Listed Buildings in Egginton village: Manor Farmhouse at 400m, the village pinfold at 610m, and Whitehouse Farmhouse at 680m. The settings of these assets are very much contained within the built form of the village. Grade II Listed Park Hill is located 770m north of the proposal site. Views towards the proposal area are heavily constrained by mature hedgerows and the flatness of the intervening landscape.
- 2.3 It is not considered likely that extraction on the site would have significant setting impacts on these Grade II Listed assets, though they should be considered within EIA and the formulation of landscaping/restoration proposals as appropriate.

Archaeology

- 2.4 The geology of the site is Hemington Terrace gravel with alluvium closer to the Dove. The Hilton Brook runs through the site parallel to the Dove and may be associated with further alluviation. The Dove is a historically mobile river and there are numerous mapped palaeochannels within the site suggesting geo-archaeological/palaeo-environmental potential.
- 2.5 Cropmarks have been mapped in the field closest to Egginton Village (MDR13325). These comprise a large curvilinear enclosure and a series of rectilinear fields, mostly likely representing late prehistoric/Roman activity.
- 2.6 Medieval ridge and furrow earthworks are mapped extensively on the site by HER entries MDR2595, 14601, 14602, 15507, 15509 and 15511. Arable conversion and previous sand/gravel extraction have resulted in significant attrition to this resource. The best preserved blocks are within the central part of the site, forming parts of MDR14602.
- 2.7 Although cropmarks are only present at the site's eastern fringe, the remainder of the site has potential for previously unknown archaeological remains within the Hemington Terrace gravels and interleaved within/beneath alluvium.

2.8 The known archaeological resource can be characterised as of high-local or low-regional importance (sparse cropmarks of relatively simple form, with a couple of now rather isolated blocks of well-preserved ridge and furrow).

Historic Landscape Character

2.9 The site is generally characterised by large 'floodplain' fields, with little recent boundary loss and most boundaries pre-dating 1849. Historic landscape character has been eroded in parts of the site by arable conversion and previous sand/gravel extraction. The strongest survival is in the central part of the site where blocks of well-preserved ridge and furrow largely respect the existing mature hedgerows, suggesting fairly early (post-medieval) enclosure of large blocks from the former open field.

- 2.10 **1** loss of locally important archaeological/palaeo-environmental remains.
- 2.11 Site-specific policy would be required within the Minerals Plan to secure the appropriate assessment, evaluation and subsequent treatment of onsite archaeological and geo-archaeological/palaeo-environmental remains, in a manner commensurate with their significance.

3. Elvaston

- 3.1 Elvaston Castle's formal gardens and pleasure grounds (1830-51) are a Grade II* Registered Park/Garden. The proposed allocation is immediately adjacent to the Registered Park on its eastern side, across the B5010 road, although sightlines are in general restricted from within Elvaston Park on this side. The southern edge of the proposal allocation also runs very close to the Eastern Avenue (within 30m), which forms a tree-lined projection to the Registered Park running east towards Ambaston, preserving long vistas to and from the Castle and enhanced by the dramatic ridge and furrow earthworks within it. The consented Elvaston Quarry lying to the south and east includes a conveyor running across the Eastern Avenue, and this would be in use for longer as part of the proposed allocation.
- 3.2 The Grade II* Listed Castle is c500m west of the proposal boundary, with 11 other separate listings within its immediate complex, including St Bartholomew's Church (Grade I), with the remainder at Grade II. Rather closer to the proposal boundary and within the Park are the Grade II Listed Grotto (400m), Pump House (320m), Boathouse (300m) and Nursery Garden Walls (270m).
- 3.3 Other Grade II Listed Buildings are present within Elvaston village: Gardens Farmhouse (370m), the Village Hall (560m), the Clock House (540m) and the War Memorial (640m)
- 3.4 A Scheduled WW2 heavy anti-aircraft gun site (1019871) is located east of Elvaston c360m south of the proposal boundary. The Monument is situated within a caravan park and fishing lake complex with no sightlines to the proposed quarry.
- 3.5 The Grade II* Registered Park and Listed Buildings within and indeed the Listed Buildings in Elvaston Village also - draw a strand of their significance from their deeply rural setting where the 19th century parkland and 'estate village' sit within a much older medieval landscape with ridge and furrow earthworks. This aspect of significance would be harmed by visible quarry operations almost immediately adjacent to the RPG's eastern boundary but could perhaps be mitigated by a landscape buffer between the RPG and the edge of extraction, in order to set the quarry operations at deeper remove within the landscape.

3.6 The direct imposition of a quarry conveyor through a Grade II* Registered Park (the Eastern Avenue) is also problematic in current historic environment policy terms. Harms are both indirect (industrialisation of setting) and direct (removal of Avenue trees), though temporary in that the Avenue would be restored post-extraction. The impact of the proposed allocation would be to extend the lifespan of the consented conveyor and associated harms by perhaps 7-8 years. Mitigation could be provided through adequate buffering along the northern edge of the Avenue, and consideration of alternative approaches (tunnelling the conveyor under the RPG, rerouting around the eastern end of the Avenue) that would lessen or avoid its impacts.

Archaeology

- 3.7 The geology of the site is Hemington Terrace gravel with alluvium in the zone closer to the Derwent. There is a substantial palaeochannel resource associated with channel migration of the Derwent, suggesting a strong geo-archaeology/palaeo-environment potential.
- 3.8 There are no known cropmarks within the site, much of which appears to have been active floodplain before the medieval period. Evaluation north of the Avenue in 1996 identified a concentration of Romano-British pottery (MDR8320), coinciding with the edge of a gravel island, and this establishes the potential for archaeological remains on drier 'islands' within the proposal area.
- 3.9 Much of the site is within records on Derbyshire HER for earthwork ridge and furrow, although the preservation of much of this is now poor. Better preserved blocks are present in the northern area close to the Derwent (MDR8066). Other HER entries are MDR14650, 5625 and 5626.
- 3.10 The known archaeological resource can be characterised as of local importance (little known archaeology and a small area of well-preserved earthwork ridge and furrow). The palaeo-channel resource is extensive and may elevate this to regional importance.

Historic Landscape Character

3.11 The area appears as fossilised strip fields and large irregular fields by 1776, likely to have been enclosed from the medieval open fields. A number of boundaries were removed by 1882 to form larger fields with the former strip fields less apparent. A number of boundaries are defined by flood protection banks and drainage ditches in addition to or instead of the traditional hedgerows. Ridge and furrow was formerly present over much of this area but has been much eroded by arable conversion.

- 3.12 **2** harms to designated heritage assets likely to be towards higher end of 'less than substantial harm'. Loss of regionally important palaeochannel resource (and locally important archaeological remains)
- 3.13 The key heritage issues with this site are the harmful setting impacts to the Grade II* Registered Park along its eastern boundary and along the Eastern Avenue, but also to Listed Buildings at Elvaston Castle and Elvaston village plus extending in time the already problematic direct and setting impacts to the Eastern Avenue.
- 3.14 Some degree of mitigation of these impacts could be effected by allocating only part of the site more specifically, by omitting *whole fields* closest to the RPG to create a robust landscape buffer to this asset using existing field boundaries as part of the screening approach.
- 3.15 Site-specific policy would be required within the Minerals Plan to secure the appropriate assessment, evaluation and subsequent treatment of onsite archaeological and geo-archaeological/palaeo-environmental remains, in a manner commensurate with their significance.

4. Foremark

- 4.1 The proposed plant location south of the former Willington Power Station impacts directly on MDR4368, a cropmark site including the Neolithic Potlock cursus. Historic England is currently carrying out a scheduling review looking at the extending the existing scheduling at the eastern end of the cursus (1007028) to cover the western end running toward Willington village, plus the complex of associated cropmarks. The national importance of the archaeology outside the current scheduling is recognised in the County Council's 2018 decision to revoke minerals consent at Potlocks Farm, and south of the road in the context of the 2014 DCO for the Willington C gas pipeline.
- 4.2 For the purposes of assessment this site will therefore be considered as though scheduled, in line with NPPF footnote 68. Development of the processing plant would damage or destroy the nationally important archaeological site, without realistic prospect of mitigation.
- 4.3 The currently scheduled part of this monument is 370m from the northern end of the proposed extraction area south of the Trent, though much intervisibility seems unlikely given intervening belts of trees. The proposed processing plant and bridge would however be harmful to the significance of this monument through its setting, principally through loss of archaeological setting.
- 4.4 There is a nationally-important group of heritage assets at Repton, roughly 700m from the proposed allocation: the Grade I Listed Church of St Wystan formerly a Saxon minster and monastery including an 8th century crypt associated with Mercian royal burials, and with archaeological remains in the churchyard associated with the monastery and with the Viking 'Great Army' of 873-4. Repton School, to the east, occupies former abbey buildings, including the prior's hall and lodgings, remains of a priory church and chapter block (all Grade I Listed) and later Grade II Listed Buildings, mostly sitting within the site of the Viking encampment of 873-4.
- 4.5 This group of heritage assets sits at the top of the 'bluffs' a low rise overlooking the Trent floodplain, the tall slender spire of St Wystan's church and the neighbouring bulk of Repton Hall being visible across the floodplain from miles around. These assets are viewed across the

floodplain in front of Repton which has a rich earthwork ridge and furrow and palaeochannel resource – medieval assets viewed in a medieval landscape with a sense of tranquillity and deep time.

- 5.6 The story of the Viking 'Great Army' of 873-4 is one of the rare occasions where great events and people from history can actually be fixed in the landscape, and the line of Old Trent Water – the former Trent course along which the Viking ships approached – is therefore a critical axis within the setting of the Repton assets, its visibility and legibility fundamental to this strand of significance.
- 5.7 The proposed allocation would be harmful to these strands of significance for the group of heritage assets at Repton eroding the legibility of the 'Great Army' story through extraction up to the line of Old Trent Water, and tranquillity and deep time of the 'medieval' Repton floodplain landscape through introduction of industrial extraction at close quarters.

Archaeology

- 5.8 Within the proposed access road footprint are earthwork remains of boundary ditches, banks and platforms (MDR14500) of probably medieval/post-medieval date.
- 5.9 Within the extraction site itself there is little or no surviving earthwork archaeology because of arable cultivation numerous ridge and furrow sites are recorded on the HER (MDR14625, 14626, 14628, 16478, 16479, 4345) but these appear to be largely ploughed out. There is substantial evidence for palaeo-channels (from aerial photographs and LiDAR) suggesting an exceptionally rich geo-archaeological and palaeo-environmental resource within the site. There is also potential for typical prehistoric/Roman-British archaeology (as per most gravel sites in the Trent Valley) and remains associated with the Viking encampment (though less likely here than west of Old Trent Water).
- 5.10 The nationally important archaeological site south of the former Willington Power Station has been discussed above. The archaeological resource within the remainder of the site is likely to be of local (known archaeology) and regional (palaeochannels) importance, though any remains associated with the Viking 'Great Army' could be nationally important.

Historic Landscape

5.11 The landscape reflects post-medieval enclosure of the medieval open fields and floodplain; the floodplain is likely to have been enclosed later, hence more regular enclosures. Roughly half the proposed extraction area has experienced significant (31-75%) boundary loss to create large arable fields, and in general these have rebuilt hedgerows not preserving any early boundary features or planting. Fringe areas in the east and south of the site preserve more boundaries (less than 30% loss) with better boundary features.

- 5.12 There are significant heritage issues with this allocation:
 - Loss of nationally important archaeological remains associated with the Potlock cursus and its landscape;
 - Setting harms to high level designations at Repton in relation to their floodplain setting and 'medieval landscape' in addition to loss of legibility of features associated with the Viking 'Great Army' story – notable Old Trent Water.
- 5.13 Although some degree of mitigation could be effected by part allocation with a substantial buffer to Old Trent Water, and by omitting the processing plant and bridge crossing as presently proposed, it is questionable whether this would be a realistic approach given the lack of obvious alternative access points.
- 5.14 **3** Loss of nationally important archaeological remains (and 'less than substantial' setting harms to designated heritage assets of exceptional importance).

5. Foston

- 5.1 No heritage designations are located within the site area.
- 5.2 The site is c2.3km from Tutbury Castle (Scheduled Monument and Grade I Listed), a motte and bailey and later medieval castle situated on a natural promontory with expansive views overlooking the floodplain of the River Dove. The Castle is skyline visible across most of the proposal site, and the proposal site is visible in the middle distance from ground level within the castle bailey as well as from the motte and tower viewpoints. Although some screening is afforded by the mature trees along Leathersley Lane, as well as at close quarters by the trees on the western slopes of the castle itself, in general the lack of field boundaries within the site means that it is visible as a large and contiguous block from the Castle.
- 5.3 Although there are areas of development within views from the Castle, these are in general located in an arc from east to north-west, with the town of Tutbury itself, the built form of Hatton and the very intrusive Nestlé factory, and the 'industrial park' type developments along the A50 close to Foston. To the west, however, the Dove floodplain forms a green, tranquil and unspoilt corridor in views from the Castle the 'best' of the Castle's setting and the very landscape it was built to dominate.
- 5.4 Although the proposal site lies just outside the immediate and most sensitive part of the Castle's setting, located in middle distance beyond Scropton village, it does read as a peripheral part of the unspoilt Dove floodplain, and quarry development here would be moderately harmful, particularly as the elevated viewpoint and the lack of mature field boundaries within the site makes visual mitigation a difficult proposition. Sequential working, reduced life-span, dry-land restoration and careful siting of the quarry plant could effect some level of mitigation to these harms.
- 5.5 There is also a strategic risk that opening up this part of the Dove to large scale gravel extraction could attract further proposals and thence sequentially erode the setting of the Castle cf the proposed 'Sudbury' site below.

- 5.6 The site is 2km from the Grade I Listed Sudbury Hall and its Grade II Registered Park. Because of the nature of the intervening landscape, lack of intervisibility and the absence of specific historic links to the proposal site it seems unlikely that there would be any setting impacts.
- 5.7 Grade II Listed Leathersley Farmhouse (17th-18th century) is c220m from the proposed allocation and has some intervisibility with the extraction area. Setting harms are likely to arise from a general erosion of the rural agricultural setting, though this could be mitigated through adequate landscape buffering to this asset, which sits within a small block of fields with good boundary survival.

Archaeology

- 5.8 The site is entirely within floodplain alluvium although a small group of cropmarks may suggest a gravel 'island'. This is typical of the Dove Valley where a very mobile river has created a broad and largely alluvial floodplain where archaeological sites may be interleaved within alluvial deposits.
- 5.9 Palaeochannel mapping shows three main channels within the site, suggesting palaeo-environmental and geo-archaeological potential as well as potential for waterlogged archaeological remains.
- 5.10 Derbyshire HER has one record MDR12446 for cropmarks interpreted as Iron Age and Romano-British field boundaries and rectilinear enclosures. These occupy a relatively small area towards the eastern end of the site.
- 5.11 Two further records for earthwork ridge and furrow MDR14192 and MDR14565 appear to be ploughed out on the basis of aerial photographs.
- 5.12 There is a relatively high potential for previously unknown archaeological remains beneath alluvium given the pattern described above.
- 5.13 Overall the known archaeological resource appears of high-local or lowregional importance.

Historic Landscape Character

5.14 Very large arable fields with a high level of boundary loss, with much of the loss occurring during the 20th century. Much of the site is comprised

of two very large arable fields, with a group of smaller fields surviving at the south-western corner.

- 5.15 The key issue here is setting harm to Tutbury Castle. Although hard to screen due to the elevated nature of the Tutbury viewpoints and the nature of the site as very large arable fields with few existing field boundaries, some mitigation could be afforded by sequential working, dry land restoration, and a reduced lifespan for the quarry. Plant must be located away from the open area of the site (and the Grade II Listed Leathersley Farmhouse), and should take advantage of opportunities for screening of built form closer to Scropton village.
- 5.16 **2-** Potential for moderate harm ('less than substantial' towards higher end) through setting to designated heritage asset (Scheduled Monument).
- 5.17 Site specific planning policy should be introduced within the minerals plan to secure a mitigation scheme as outlined above, based on a clear assessment and understanding of viewpoints from the Castle.
- 5.18 Site-specific policy would be required within the Minerals Plan to secure the appropriate assessment, evaluation and subsequent treatment of onsite archaeological and geo-archaeological/palaeo-environmental remains, in a manner commensurate with their significance.

6. Swarkestone North

- 6.1 The Scheduled Monument 'Twyford Henge and Round Hill bowl barrow' (1011436) is located immediately adjacent to the proposed extraction boundary. The henge monument is known from cropmarks only and measures c80m diameter; within the henge is a centrally placed bowl barrow standing to a height of 4m.
- 6.2 The Monument is located in a very large and rather denuded agricultural/horticultural field 'industrial agriculture' which makes little or no contribution. The Monument's topographical/landscape position in relation to river and floodplain is however important, and the Monument also has an archaeological setting in terms of associated below-ground remains, in particular the linear arrangement of cropmarks and a palaeochannel running north-east from the river towards Poplars Farm. There are likely to be further associated features not showing as cropmarks.
- 6.3 The allocation boundary at present runs up to the southern boundary of the Monument with no buffer, although rather more buffering is allowed to east and north. This will be harmful in terms of removing aspects of archaeological setting and in terms of industrial activity and landforms in immediate proximity to the monument itself.
- 6.4 Mitigation could be provided for these impacts by an enhanced landscape buffer to the scheduled monument to allow more of the intimately associated archaeology to be preserved, and to allow sensitive restoration following extraction to a more naturalistic floodplain landscape offering an opportunity to enhance the Monument's rather degraded present setting.
- 6.5 At its western end the allocation site is c120m (one field) from the Twyford Conservation Area, 160m from Twyford Hall and its associated oubuildings (separately Grade II Listed), 220m from the Grade I Listed medieval Church of St Andrew, a separately Grade II Listed wall and outbuilding, and 260m from the Grade II Listed Grange Farm. The Twyford assets are however screened by a series of mature hedgerows so that there is no ground level intervisibility with the proposed allocation site. Setting impacts here could be mitigated through robust landscaping, screening and buffering.

- 6.6 The northern boundary of the site is c250m from the Grade II* Listed Old Hall Cottage (16th century origins) and the neighbouring Grade II Listed Old Hall Farmhouse, thought likely to represent a much-reduced former manorial site. It seems unlikely that there would be intervisibility of the proposal site given the intervening mature hedgerows and road.
- 6.7 The southern 'point' of the site runs to within 200m of the Grade II Listed Anchor Church – a sandstone cave thought to have medieval or even Saxon origins before being adapted as a 'Romantic' dining space for Foremark Hall in the 18th century. The proposed allocation would be seen from here in the context of previous and consented quarry development to each side – the main, worked-out Swarkestone Quarry to the east and the active Swarkestone southern extension to north and east with its 'Bailey Bridge' crossing of the Trent, and buffered area closest to the asset. Although cumulative, it seems unlikely that the proposed allocation would add much to the existing harms.

Archaeology

- 6.8 The site is Holme Pierrepont Terrace gravel towards Twyford, with Hemington Terrace gravel to the east and a smaller area of alluvium in the southern part. There is a moderate known palaeochannel resource, with a group close to the Trent in the south-western part of the site, a single large channel running north-east towards Poplars Farm, and some parallel channels at the site's eastern edge. The geo-archaeology is however principally gravel terrace and 'dry-land' archaeology is likely to be predominant, although the relationship of archaeology and palaeochannels, particularly close to Round Hill is potentially significant.
- 6.9 Derbyshire HER has 15 entries for the proposed extraction area, for cropmarks (9 entries) likely to represent prehistoric and Romano-British activity, including a trackway (MDR14477), pit alignments (MDR14478, 14479), a ring ditch (MDR14883), enclosures and ditches (MDR14480, MDR4318, MDR4327), an Iron Age settlement site partially excavated in the neighbouring quarry (MDR4319), rectilinear enclosures (MDR4364) and for earthwork and cropmark ridge and furrow (MDR14631, 14632, 16498, 16519, 16520). There is clearly potential for extensive 'dry-land' archaeology with smaller zones of palaeo-enviromental potential. Much if not all of the ridge and furrow resource seems to have been lost to arable conversion.

6.10 Outside the Scheduled Monument and its immediate vicinity the known archaeological resource can be characterised as of regional importance (extensive and varied cropmarks of likely prehistoric date, though nowhere particularly dense, with additional palae-environmental potential).

Historic Landscape Character

- 6.11 The field system seems to have evolved from post-medieval enclosure of area of former open field and floodplain, with a rather piecemeal system of smaller fields and some sinuous boundaries reflecting enclosure of the former strip system.
- 6.12 The whole area has however been subject to major boundary loss in the context of arable conversion during the 20th century, creating the very large arable fields visible today.

- 6.13 The key heritage issues with this allocation are:
 - The setting of the Scheduled 'Round Hill' henge and barrow. The allocation boundary is too close to this asset and further buffering should be provided. There is an opportunity for sensitively designed restoration to enhance the asset's currently degraded setting and to help balance extraction impacts to the asset's archaeological (belowground) landscape. This should be addressed in site specific planning policy.
 - Further policy would be required to safeguard significance and setting with regard to heritage assets at Twyford.
- 6.14 Site-specific policy would be required within the Minerals Plan to secure the appropriate assessment, evaluation and subsequent treatment of onsite archaeological and geo-archaeological/palaeo-environmental remains, in a manner commensurate with their significance.
- 6.15 2 potential for moderate ('less than substantial' towards higher end) harms to designated heritage assets through setting, including the scheduled 'Round Hill' monuments and the Twyford Conservation Area. Loss of regionally important archaeological resource.

7. Swarkestone South

Designated sites and settings

- 7.1 The northern part of the proposed allocation is immediately adjacent to the Twyford Conservation Area and is 110-150m away across the Trent from Grade II Listed Buildings in Twyford (Twyford Hall and its associated oubuildings, Grange Farm) which have principal elevations facing towards the river and the proposed allocation site. At greater distance and set back from the village is the Grade I Listed St Andrew's Church (225m) where direct ground level views are unlikely. The extraction site would be plainly visible at close quarters in important views to and from these assets and this would cause considerable harm to significance through setting. These impacts could be greatly mitigated by setting the extraction boundary further to the south and using the screening provided by existing field boundaries.
- 7.2 The northern boundary of the site is c500m from the Scheduled Monument 'Twyford Henge and Round Hill bowl barrow' (1011436) beyond the River Trent. Given the distance and existing screening from tree belts and boundaries, significant harms to setting are unlikely.
- 7.3 The southern site boundary is c750m from the group of heritage assets at Foremark – principally the Grade I Listed Foremarke Hall, Grade II Listed structures in its curtilage (walls, steps, balustrades, a kitchen garden and a garden temple), Grade II Listed Home Farm and Grade I Listed St Saviour's Church. Views from the Hall and its environs are curtailed by hedge screening along the road to the north, and beyond it by Mill Plantation – the topography of the steep bluffing dropping off north to the Trent Valley and its associated woodland in general prevents direct views to the floodplain from the heritage assets.
- 7.4 To the west of Foremark the landscape opens up and there would be views to the extraction site for example from the road at c250m distance, resulting in some background erosion to the deeply rural landscape in which these assets are set.

Archaeology

7.5 The geology of the site is Hemington Terrace sand and gravel with bands of alluvium, although similarly to the consented site to the east the site is likely to have been active floodplain with significant alluvial episodes – dominated therefore by 'wet' archaeology rather than dry land remains.

The neighbouring site has produced important waterlogged material including an Iron Age post alignment along with Palaeolithic/Mesolithic antler tools and numerous palaeochannels.

- 7.6 This likely pattern is borne out by the complete lack of mapped cropmarks on the site. The site has a single record on Derbyshire HER (MDR14625) for earthwork ridge and furrow, although this is a very large which occupies most of the proposed allocation site and areas to east and west. Arable conversion however looks to have removed these earthworks in their entirety.
- 7.7 The site has a rich mapped palaeochannel resource, with numerous east-west channels associated with migration of the Trent.
- 7.8 There is consequently a high potential for palaeo-environmental and geoarchaeological remains, with some background potential for 'dry land' archaeology on gravel islands. On the evidence of the neighbouring site this might be expected to be of regional importance.

Historic Landscape Character

7.9 Historic mapping shows very regular small fields likely to represent enclosure of former open field and floodplain at a relatively late date (Enclosure Act or later). Most boundaries were removed during the 20th century (76-100%) though a pattern of the more major boundaries does survive, and these vary in form from hawthorn hedge to more mature hedge boundaries.

- 7.10 The key heritage issue for this allocation is the proximity to the group of heritage assets at Twyford, and further buffering should be provided to these assets. The extraction boundary should be further south and should make use of existing field boundaries as part of the screening/buffering approach. Site specific policy should be introduced to reflect this.
- 7.11 Site-specific policy would be required within the Minerals Plan to secure the appropriate assessment, evaluation and subsequent treatment of onsite archaeological and geo-archaeological/palaeo-environmental remains, in a manner commensurate with their significance.

7.12 2 – Potential for moderate ('less than substantial' towards higher end) harms to designated heritage assets through setting (Twyford Conservation Area). Loss of regionally important palaeoenvironmental/geo-archaeological resource.

8. Twyford

NB, the southern part of this site is identical to 'Swarkestone North', and impacts are as assessed above. Detailed discussion is given below for the northern part of the site north of the A5132, and the 'Summary' section will consider the proposed allocation as a whole.

Designated sites and settings

- 8.1 The western edge of the proposed (northern) allocation is immediately adjacent to Twyford Conservation Area and to two Listed Buildings Old Hall Cottages (Grade II*) and Old Hall Farmhouse (Grade II). The site has 16th century origins and the buildings represent the remnants of a former medieval manorial site. Extraction at such close quarters would be harmful to the significance of both Conservation Area and Listed Buildings, through a complete loss of their agricultural setting. A significant buffer to extraction would be needed to adequately mitigate these impacts this could be achieved by only part-allocating this (northern) site.
- 8.2 The western edge of the site is 650m from the Scheduled Monument comprising the eastern end of the Potlock cursus, though with no intervisibility due to intervening mature field boundaries.
- 8.3 The Trent and Mersey Canal Conservation Area runs between 220m and 410m north of the allocation site, though with no intervisibility due to the intervening railway cutting and the slightly incised nature of the canal here, both railway and canal being lined by mature hedgerows and trees. Grade II Listed Arleston House Farm sits north of the canal c490m from the proposed allocation.
- 8.4 The (northern) site is c270m from the Scheduled Monument 'Twyford Henge and Round Hill bowl barrow' (1011436), which lies south of the road, though with little or no intervisibility given the intervening road and field boundaries.

Archaeology

8.5 The site is Holme Pierrepont Terrace gravel throughout, suggesting that the archaeological resource will be dominated by 'dry land' archaeology.

- 8.6 There are 7 entries in Derbyshire HER, 6 for cropmarks (MDR4313, 4321, 4322, 4327, 4328, 4363) and one for ridge and furrow earthworks (MDR8098). These records occupy almost the whole proposed allocation site. The plotted cropmarks include trackways, field systems, ring ditches, enclosures and a pit alignment, and are extensive if not particularly dense or complex.
- 8.7 Substantial palaeochannels are also plotted, running roughly E-W across the site, and suggest that the site also has palaeo-environmental potential.
- 8.8 The known archaeological resource can be characterised as of lowregional importance (extensive though not complex or dense cropmarks, with palaeo-environmental potential).

Historic landscape character

8.9 The site is characterised by post 1650 enclosure as fossilised strip fields and other small irregular fields that may have been enclosed from the medieval open fields. There has however been major boundary loss (31-75%) during the 20th century, resulting in very large arable fields. Field boundaries retain sporadic mature trees.

- 8.10 Issues for the southern part of this site are as per 'Swarkestone North' above. For the site north of the A5132 the key issue is the Twyford Conservation Area and the Listed Buildings at Old Hall Cottages/Farmhouse. Setting impacts here would be difficult to mitigate without substantial buffering of the proposed extraction behind existing field boundaries within the site, and this would be best achieved through reduction of any allocation north of the A5132 i.e. through part allocation of the site or specific planning policy to require a robust landscape buffer.
- 8.11 Site-specific policy would be required within the Minerals Plan to secure the appropriate assessment, evaluation and subsequent treatment of onsite archaeological and geo-archaeological/palaeo-environmental remains, in a manner commensurate with their significance.
- 8.12 2 potential for moderate ('less than substantial' towards higher end) harms to designated heritage assets through setting (Twyford Conservation Area and Grade II*/II Listed Buildings at 'Old Hall'). Loss

of regionally important palaeo-environmental/geo-archaeological resource.

8.13 All sand and gravel extracted from the Plan area is transported to its markets by road. Viable alternatives are not currently available but will be explored where possibilities arise.

9. Sudbury

- 9.1 The site is immediately adjacent to the Grade II Listed Leathersley Farmhouse, and extraction would harm the setting of this asset due to loss of its agricultural context. Historic field boundaries in this part of the site remain largely as per 1880, so there is scope for retention of an area to provide a landscape buffer to the Listed Building.
- 9.2 The site is 720m from the boundary of the Grade II Registered Park at Sudbury, and 930m from the Grade I Listed Sudbury Hall. There are numerous Listed Buildings within Sudbury village along Main Street between 700-900m from the allocation boundary, with the Grade II Listed school somewhat closer at 680m. A site visit suggests that there is no intervisibility between the Registered Park or Listed Buildings and the allocation site, because of the intervening fields and field boundaries, and the enclosed nature of the landscape within the Park.
- 9.3 Sudbury is experienced as an estate village 'oasis' tucked away though within sight and sound of the busy A50, and the proposed extraction site would perhaps accentuate the contrast by introducing a quarry development along one of the main approaches (the A515). This would be a cumulative harm and could be tuned down by a robust approach to screening and perhaps by introducing a stand-off to the western end of the site.
- 9.4 Aston Bridge (Grade II Listed) is adjacent to the south-western corner of the site, an example of a 19th century road bridge across the Dove. The bridge lacks public viewpoints, being little seen from the road and with no bankside right of way, so its significance derives principally from architectural value rather than setting, though a modest buffer may be appropriate.
- 9.5 The site is seen from Tutbury Castle (Scheduled Monument) between 3.7km and 4.9km distant and is experienced beyond the proposed 'Foston' allocation discussed above. The site is not as clearly visible as the 'Foston' proposal it is at greater distance, falling away from middle-into longer-distance, and the survival of more field boundaries within and around the site provides enhanced opportunity for screening and landscaping. There is consequently much greater potential for mitigation of harms compared to the closer site, though this site would cumulatively

magnify the harm posed by the Foston allocation if it were developed in addition.

Archaeology

- 9.6 The site is within the Dove floodplain and is mapped as alluvium in its entirety. This is typical of the Dove Valley where a very mobile river has created a broad and largely alluvial floodplain where archaeological sites may be interleaved within alluvial deposits.
- 9.7 The site has 3 entries for earthwork ridge and furrow on Derbyshire HER (MDR14192, 14564 and 14565). All of these appear lost to arable conversion.
- 9.8 There are three mapped palaeochannels plotted within the site, relating to migration of the River Dove. There is consequently palaeoenvironmental potential, and potential for waterlogged archaeology.
- 9.9 There is little known archaeology within the site, although there are likely to be palaeo-environmental or waterlogged remains which could be of regional importance.

Historic landscape character

- 9.10 The majority of the site is composed of small irregular fields with some sinuous boundaries, representing piecemeal enclosure of the former open field during the post-medieval period (as evidenced by the records for ridge and furrow though this is now ploughed out). There has been little boundary loss (0-10%) though more boundaries have been removed to create larger fields towards the site's western boundary. Boundaries are in general hawthorn hedge with occasional mature trees.
- 9.11 Although a reasonable survival of an early field pattern, the supporting ridge and furrow resource has been lost.

- 9.12 The key heritage issue with this allocation is the setting of the Grade II Listed Leathersley Farmhouse. Some mitigation could be effected by establishing a landscape buffer to this asset using site specific planning policy, with plant located well away from this part of the site.
- 9.13 Site-specific policy would be required within the Minerals Plan to secure the appropriate assessment, evaluation and subsequent treatment of on-

site archaeological and geo-archaeological/palaeo-environmental remains, in a manner commensurate with their significance.

9.14 **2** – potential for moderate ('less than substantial' towards higher end) harm through setting to a designated heritage asset (Leathersley Farmhouse).

10. Aldwark South

- 10.1 The intervening topography of Slipper Low means that there is no intervisibility with the Scheduled Monument at Minninglow Hill (1009102) at 2km, nor with the two scheduled barrows at Rockhurst (1008997 and 1008939) at c1.6km, nor with the bowl barrow at Galley Low (1010100) at 1km or the two scheduled barrows at Green Low (1010103 and 1009444) are c1.3km north of the site boundary.
- 10.2 The scheduled barrow at Moot Low is c450m east of the site boundary. The barrow is located within a few metres of the existing Brassington Moor quarry, and the spoil mounds, bunds, haul roads and quarry benches dominate the experience of the monument. Outside this northern quadrant however the dominant landscape position of the barrow contributes to its significance along with the natural rocky outcrops of the hilltop, with views over the Griffe Grange Valley/Portway to the east and towards Minninglow Hill to the west. Views of the proposed extension from here would be clear and immediate, though experienced above the mounds of the existing quarry and therefore within the arc of viewshed already dominated by industrial activity. The active quarry context of the monument would not change, but there would be a cumulative expansion of the quarry in the view likely to be minor adverse.
- 10.3 The scheduled Harboro Cave (1007044) is 1.3km SE of the site boundary. The elevated position of the cave contributes to its significance, with far reaching views across the southern horizon and intervisibility with other monuments in the landscape such as the 'Round Hill' barrow and Minninglow Hill. Significant detractors are present in the view principally the Hoben Works at close quarters which has both visual and noise impact to the lofty tranquillity of the viewpoint. The proposed extension is not visible from the cave entrance, but a few steps away can be seen at the western periphery of the view, seen above the development at Curzon Lodge. This would be a relatively minor and peripheral intrusion into a wide ranging view which already contains much more substantial industrial elements in the foreground. However, the introduction of an active quarry into this arc of landscape would be new and would be seen in the direction of view towards Minninglow Hill. The cumulative harm here is likely to be minor adverse.

- 10.4 Alwark Conservation Area is c400m north of the site boundary. There is no direct intervisibility of the proposed extension, which would be beyond the consented extension closer to the village and experienced as a relatively minor cumulative impact.
- 10.5 Harms to designated heritage assets from these proposals may not therefore be EIA-significant, particular if there are benefits tied into the proposed eventual restoration of the site, for example in restoring to a naturalistic landform which (e.g.) reinstates the historic viewsheds from Moot Low to the north.

Archaeology

- 10.6 The site is on carboniferous limestone (Monsal Dale formation), with a small band of basaltic lava.
- 10.7 The site has four entries on Derbyshire HER. MDR2862 and MDR2926 relate to finds of prehistoric lithics MDR2862 relates to 'large quantities' of material found before 1923, loosely dated to the Neolithic and Bronze Age periods and including arrowheads, 'knives' scrapers, blades cores and debitage. This site lies just north of the proposal boundary though some overlap is probable. MDR2926 relates to a barbed-and-tanged arrowhead found in 1963 in the SE part of the site.
- 10.8 Close to the site's southern boundary a small scatter of early Neolithic features were identified during development of the Curzon Lodge site in 2008-9 (MDR22942). These included pits with early Neolithic pottery, a possible post-hole and two hearth pits, producing radiocarbon dates in the late 4th millennium BC.
- 10.9 Also within the site are two records (MDR21927 and MDR21928) for '19th century outfarms', these are small fieldbarns dating to the late 19th century and are no longer extant. A limekiln is shown on historic mapping in the western part of the site.
- 10.10 Aerial photography suggests that the site is largely improved grassland with few surviving earthworks. A couple of unimproved 'islands' survive, one associated with the limekilns shown on historic mapping, a second towards the SW corner of the site appears to reflect historic lead mining older aerial photos show a possible belland wall enclosing shafts and spoil tips. The site is not identified in the gazetteer of regionally/nationally important mining sites in the Peak District.

10.11 The site therefore has potential for prehistoric archaeology in the form of lithic material and small-scale sub-surface remains, of local or regional importance. Lead mining and lime-burning remains of local importance are also present.

Historic landscape character

10.12 The site is composed of Enclosure Act fields with straight boundaries composed of drystone walling and deriving from the enclosure of Brassington Common around 1803. This character survives reasonably well though has been somewhat eroded by grassland improvement and there are certainly better preserved areas to the west.

Summary

- 10.13 Off-site (setting) impacts to the scheduled Moot Low barrow and Harboro Rocks cave could be managed through site-specific policy securing benefits tied into the proposed eventual restoration of the site, for example in restoring to a naturalistic landform which (e.g.) reinstates the historic viewsheds from Moot Low to the north
- 10.14 On site impacts to prehistoric and mining archaeology could be managed through site-specific policy to secure a robust programme of archaeological assessment, evaluation and recording before and during extraction.
- 10.15 1 potential for minor cumulative harms ('less than substantial' towards lower end) to designated heritage assets through setting (scheduled Moot Low barrow and Harboro Cave). Loss of locally important archaeological remains.