



global environmental solutions

Hatfield Aerodrome, Hertfordshire

**Planning Application for a new quarry and ancillary facilities
on land at the former Hatfield Aerodrome**

Volume 1

PLANNING STATEMENT

**January 2016
SLR Ref: 403.01009.00132**

Brett Aggregates Limited



TABLE OF CONTENTS

1.0	Introduction
2.0	Site Description
3.0	Development Description
4.0	Planning Policy
5.0	Need
6.0	Conclusions

LIST OF DRAWINGS

Drawing Number	Drawing Title	Size
Chapter 2	Site Description	
HQ 2/1	Site Location Plan	A3
HQ 2/2	Application Site Layout	A3
HQ 2/3	Topographic Survey	A3
Chapter 3	Development Description	
HQ 3/1	Overall Phasing / General Layout	A3
HQ 3/2	Entrance Design	A3
HQ 3/3	Plant Site Masterplan	A3
HQ 3/4	Processing Plant Detail	A3
HQ 3/5	Plant Elevations	A3
HQ 3/6	Initial Site Preparation	A3
HQ 3/7	Phase A - Illustration	A3
HQ 3/8	Phase B - Illustration	A3
HQ 3/9	Phase C - Illustration	A3
HQ 3/10	Phase E - Illustration	A3
HQ 3/11	Illustrative Restoration Concept	A3
HQ 3/12	Illustrative Sections	A3

LIST OF APPENDICES

Appendix	Description
Chapter 3	<i>Development Description</i>
3/1	Typical layout/elevations of a concrete batching plant

CONTENTS

Introduction	1-1
Application Submission Package	1-1
The Site	1-2
The Proposed Development.....	1-2
The Applicant.....	1-3
Planning and Pollution Control	1-4
The Submission and its Structure.....	1-4
Project Team	1-5
Publication.....	1-5

INTRODUCTION

- 1.1 This document comprises a Planning Statement and has been prepared by SLR Consulting Limited ('SLR') on behalf of Brett Aggregates Limited ('the applicant'). The statement forms part of a package of documents being formally submitted to Hertfordshire County Council (as Mineral Planning Authority, or 'MPA') in support of a planning application in respect to land at Hatfield Aerodrome, near Hatfield.
- 1.2 The applicant is submitting a planning application for the establishment of a new quarry on land at the former Hatfield Aerodrome, being part of the allocated site referred to in the extant Minerals Local Plan¹ (refer to Chapters 2 and 4 below for further information on the policy framework for the area). The proposals would involve the winning and working, together with processing for sale, of some 8Mt of sand and gravel over a period of around 30 years. In parallel with the extraction of minerals would be the importation of low permeability inert material to infill the mineral workings to facilitate the restoration of the site to a beneficial after use, combining recreation and nature conservation. The imported material would typically comprise excavation wastes from construction and engineering projects (soils, overburden, clays etc.) within the region. This is set out further in paragraph 1.11 below, and Chapter 3 of this statement.
- 1.3 The Planning Statement aims to provide the MPA with further information that does not fall within the scope of the Environmental Statement (ES). In this respect, it considers the proposed development in the light of policies in the Development Plan, and material considerations (such as national planning policy and need). Coupled with the ES, this document is intended to provide the MPA with sufficient information to determine the planning application. Unlike the ES, this statement is not a mandatory requirement and there are no statutory or regulatory guidelines governing the content of a Planning Statement.

Application Submission Package

- 1.4 This statement comprises the first of three volumes submitted to Hertfordshire County Council to accompany the planning submission. In addition to the formal planning application forms and certificates, the full submission comprises;
- **Volume 1- Planning Statement (this document);**
 - Volume 2- Environmental Statement;
 - Volume 2A – ES Text;
 - Volume 2B – ES Technical Appendices; and
 - Volume 2C – A Non-Technical Summary of the ES;
 - Volume 3 - Statement of Community Involvement.

¹ "Preferred Area 1", and illustrated on Inset Map 6 within the Mineral Local Plan

- 1.5 This ES aims to provide an objective account of the possible significant environmental effects of the proposed development by setting out the results of the Environmental Impact Assessment ('EIA') which has been undertaken. It is intended to provide the local planning authority (i.e. Hertfordshire County Council) with sufficient information to determine the planning application having due regard to the protection of the local amenity and the environment as a whole. The ES has been prepared in line with the framework provided in the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 with cognisance of the guidance set out in the online National Planning Practice Guidance and The Institute of Environmental Management and Assessment's (IEMA) "*Guidelines for Environmental Impact Assessment*".
- 1.6 The Non-Technical Summary (NTS) has been produced as a separate, standalone document in line with best practice prescribed by IEMA to accompany the planning submission, being a mandatory part of the ES. The purpose of the NTS is to provide, in non-technical language, a brief summary of the likely significant effects that the proposed development would have on the environment.
- 1.7 Finally the Statement of Community Involvement provides a summary of the consultation undertaken by the applicant and the feedback received.

THE SITE

- 1.8 Land to which the planning application relates (referred to as "*the application site*") is located on the north-western edge of Hatfield and to the east of St Albans on land associated with the former Hatfield Aerodrome. It lies within an area bounded by the A1057 (Hatfield Road/St Albans Road) to the south, Oaklands Lane to the west, Coopers Green Lane to the north and the western fringe of Hatfield to the east.
- 1.9 The application site covers an area of around 87.1ha and comprises the western part of the former aerodrome.
- 1.10 Chapter 2 within this Volume provides further information on the application site and its environs.

THE PROPOSED DEVELOPMENT

- 1.11 The applicant is submitting a planning application for the establishment of a new quarry on land at the former Hatfield Aerodrome, being part of the allocated site referred to in the extant Minerals Local Plan ("Preferred Area 1", and illustrated on Inset Map 6 - refer to Chapter 2 above and 4 below for further information). The proposals would involve the winning and working, together with processing for sale, of some 8Mt of sand and gravel over a period of around 30 years (based on an annual output of around 250,000tpa). In parallel with the extraction of minerals would be the importation of low permeability inert material to infill the mineral workings to facilitate the restoration of the site to a beneficial after use, combining recreation and nature conservation. The imported material would typically comprise

excavation wastes from construction and engineering projects (soils, overburden, clays etc.) within the region.

- 1.12 The quarry would be worked on a phased basis to allow for progressive restoration. Sand and gravel would be worked from two discrete horizons; the Upper Mineral Horizon ('UMH'), which lies predominantly above the water table, would be worked dry whilst the Lower Mineral Horizon ('LMH') would be worked wet (i.e. limited dewatering of the workings). Above the UMH is a clayey material (referred to as 'overburden') on top of which is the soil horizon. The two mineral horizons are separated by a laterally continuous layer of boulder clay (referred to as 'interburden'): the overburden and interburden would be used to control groundwater ingress and to infill the base of the workings to provide a suitable low permeability geological barrier on top of which the imported material would be placed.
- 1.13 Excavated material would be processed at the quarry using a combination of screening and washing plant to produce a range of graded aggregates and sands. Processed aggregates would either be dispatched from the site in HGVs or used in ancillary 'downstream' plant (a 'concrete batching plant') located within the plant site for the production of concrete. Processed aggregates and concrete (together with the import of cement) would be exported via a new access constructed onto the A1057 (Hatfield Road) on the southern side of the quarry.
- 1.14 Other ancillary development would include two weighbridges with attendant office, office/welfare accommodation, substation and electrical switch-room, and small stores and maintenance building, fresh water and silt lagoons.
- 1.15 Chapter 3 of this Volume provides more details of the planning application.

THE APPLICANT

- 1.16 Brett Aggregates Limited (BAL) is the wholly owned subsidiary company of Robert Brett and Sons Limited (Brett), the Canterbury based aggregates, building materials and civil engineering independent business which was established over a century ago. It is the largest independent producer of sand and gravel in the UK.
- 1.17 BAL manages all of Brett's quarry, marine dredged aggregate, recycled aggregates and coated stone operations and serves Kent, Sussex, Surrey, Berkshire, Buckinghamshire, Hertfordshire, Essex, Suffolk and London. Its operations in Surrey and the west London area, in general, are currently controlled from its regional office at Shepperton.
- 1.18 BAL has an enviable record of operating and restoring its quarries of which it is justifiably proud. It has achieved far more awards for the quality of its work, than any other independent company in the industry. In all, it has won over 50 awards, not only made by quarry industry associations in this country but also by European bodies concerned with care for the environment.

- 1.19 BAL operates an integrated management system, certified to ISO 14001; BES 6001; and ISO 9001 at each of its sites and the proposed operations at Hatfield Aerodrome (should planning permission be granted) would be integrated into the system.
- 1.20 Further information about the applicant can be found on their website, www.brett.co.uk.

PLANNING AND POLLUTION CONTROL

- 1.21 Government advice on planning makes it clear that it is important to avoid unnecessary or confusing duplication. For example, Paragraph 122 of the National Planning Policy Framework (NPPF) states that *“...local planning authorities should focus on whether the development itself is an acceptable use of the land, and the impact of the use, rather than the control of processes or emissions themselves where these are subject to approval under pollution control regimes. Local planning authorities should assume that these regimes will operate effectively.”*
- 1.22 In addition, paragraph 7 (fifth bullet point) of the National Planning Policy for Waste² states:
- “When determining waste planning applications, waste planning authorities should: ...*
- concern themselves with implementing the planning strategy in the Local Plan and not with the control of processes which are a matter for the pollution control authorities. Waste planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced”.*
- 1.23 The proposals for the importation of inert fill material would be governed by an Environmental Permit issued by the Environment Agency in addition to a planning permission. The Environmental Permit will contain a number of conditions intended to regulate the day to day management of the site with the aim of minimising the effect of the operation on the environment; it will also contain conditions regulating site management and monitoring.

THE SUBMISSION AND ITS STRUCTURE

- 1.24 The first chapter of this statement provides an overview of the submission and the regulatory framework in which it sits. Subsequent chapters provide a description of the application site; describe the development proposals; set out the relevant planning policy considerations and need for the development. As such, this statement, in parallel with the ES, is intended to provide the MPA with sufficient information to determine the planning application having due regard to the protection of local amenity and the environment as a whole.

² National Planning Policy for Waste, DCLG. October 2014

- 1.25 This statement is organised and presented in the following way:

Background Information (Chapters 1-3) – This part of the statement is descriptive in nature. It provides the reader with an overview of the application site and its surrounding environs alongside a description of the development for which planning permission is being sought.

Review of Planning Policy (Chapter 4) – this section provides a review of relevant planning policies within both the Development Plan and National Planning Policy Framework to demonstrate acceptability of the proposals.

Need (Chapter 5) – consideration is given to the need for the release of additional reserves having regard to the requirements of the Development Plan and national planning policy and guidance.

Conclusions (Chapter 6)

- 1.26 This document is presented as follows:

Chapter 1	Introduction
Chapter 2	Site Description
Chapter 3	Development Description
Chapter 4	Planning Policy
Chapter 5	Need
Chapter 6	Conclusions

Project Team

- 1.27 SLR is a multi-disciplinary environmental consultancy to *inter alia* the minerals, energy and waste management industries, and also provides advice to local authorities and the Environment Agency on strategic issues. SLR is a registered Environmental Impact Assessor Member of the Institute of Environmental Management and Assessment (IEMA) and has secured the EIA Quality Mark awarded by IEMA.
- 1.28 In preparing this submission package, SLR has drawn upon the expertise of an in-house team of specialists comprising planners, landscape architects and environmental scientists for the majority of the technical assessments. SLR has also worked with Dominic Woodfield (of Bioscan (UK) Limited) in connection with the ecological assessment and Andrew Josephs (of Andrew Josephs Associates) who has produced the cultural heritage assessment. SLR has also worked closely with the management teams and technical staff of Brett Aggregates Limited, as part of an iterative process, to ensure that the proposed development is practical, feasible and optimises environmental protection.

Publication

- 1.29 Paper copies of this statement can be obtained from SLR Consulting Ltd at the following address:

Aspect House
Aspect Business Park
Bennerley Road
Nottingham
NG6 8WR

- 1.30 The statement, along with the other Volumes to the submission, is available in both paper and CD-ROM format, for which a charge of £250 and £25 is applicable respectively. A copy of the NTS is available free of charge on request. In addition, the application documents will also be available to download from the Hertfordshire County Council website.

CONTENTS

Introduction	2-1
Location	2-1
Site Description	2-2
Context	2-2
Topography	2-5
Land Use	2-5
Access	2-5
The Surrounding Area	2-5
Context	2-5
Landscape	2-5
Land Use	2-6
Site History	2-6

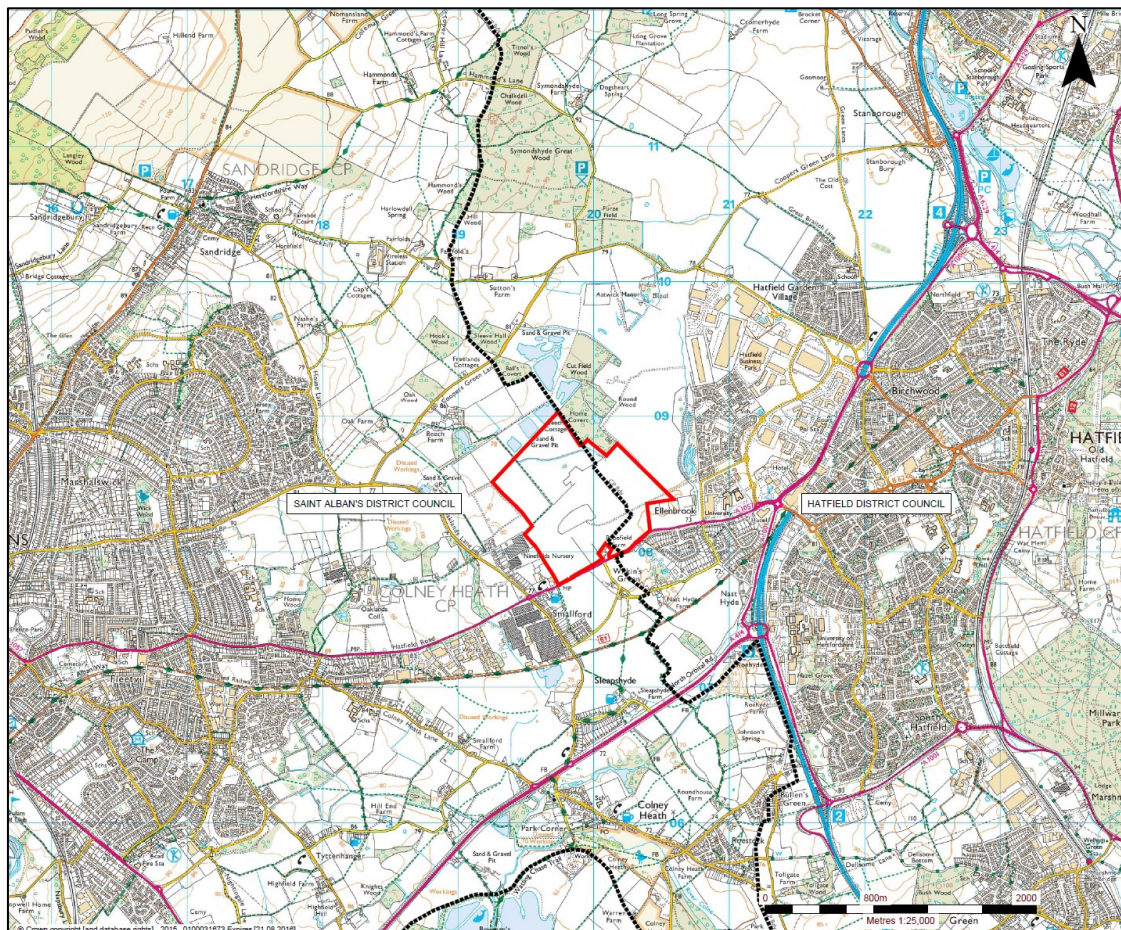
INTRODUCTION

2.1 This chapter describes the existing physical and environmental characteristics of the application site and its surrounding environs. Allied to this, a number of the chapters within Volume 2 (the ES) provide descriptions of the application site in relation to particular environmental topics, providing *inter alia* 'baseline' surveys.

LOCATION

2.2 The application site is located on the north-western edge of Hatfield and to the east of St Albans on land associated with the former Hatfield Aerodrome. Figure 2-1 illustrates the location of the applications site, being an extract from Drawing HQ 2/1.

**Figure 2-1
Site Location**



2.3 It lies within an area enclosed by the A1057 (Hatfield Road/St Albans Road) to the south, Oaklands Lane to the west, Coopers Green Lane to the north and the western fringe of Hatfield to the east. For identification purposes the application site is centred on National Grid Reference (NGR) TL 199084.

- 2.4 In terms of local governance, the application site is located in the county of Hertfordshire and straddles the boundary between the districts of St Albans and Welwyn Hatfield (the boundary between the two districts being shown by a solid black line on Figure 2-1 with St Albans lying to the west of the line).

SITE DESCRIPTION

Context

- 2.5 The application site covers an area of approximately 87.1ha and comprises the southern part of the former aerodrome. The application site comprises a broadly rectangular area of unoccupied land that is partly used as an informal public open space and partly for grazing. As such, the application site does not have any dominant land use at the current time following the closure of the aerodrome.

Figure 2-2
Site Context – Aerial Photograph



- 2.6 The application site is bounded by the A1057 (Hatfield Road) to the south, the boundary of which is characterised by a mature hedgerow. To the north lie CEMEX's Hatfield Quarry, and more specifically a set of silt lagoons. To the west the boundary is predominantly formed by a mature hedgerow, particularly in the vicinity of the garden centre and nursery (see below), with the northern section being more open in aspect. At the north eastern corner is Home Covert, a small area of broadleaf woodland. The eastern boundary cuts across the former aerodrome to join up with the sports pitches located at the south eastern corner of the application site. The approximate extent of the application site is shown edged in red on Figure 2-2 and in more detail on Drawing HQ 2/2.

- 2.7 Within the application site a concrete roadway extends west to into the centre of the application site from Albatross Way to the east (see Figure 2-3); a number of other tracks also cross the application site.

Figure 2-3
Photo of Site and Concrete Roadway



- 2.8 A number of earth bunds and banks are present on site from the earlier aerodrome as illustrated in Figure 2-4 overleaf. There are some remnant hedgerows that cross the site although the current field pattern is less defined than shown on more historic maps (such as 1888).

Figure 2-4
Panoramic Views of the application site



Topography

2.9 The ground surface falls gently from northwest to southeast across the application site as illustrated on Drawing HQ 2/3 and described below:

- ground elevations are at their lowest between 74mAOD and 76mAOD adjacent to the A1057 at the southern edge of the application site.
- levels rise to between 77mAOD and 78mAOD in the northwest and northeast corners of the application site.
- ground elevations are approximately 75mAOD to 76mAOD adjacent to the southwest side of Home Covert.

Land Use

2.10 Following closure of the aerodrome, in common with the adjoining land to the north, the application site does not have any formal land use. A small part of the application site (on the eastern edge) is used for conservation cattle grazing (thus having an agricultural connotation), with areas within the western part of the application site forming hay meadow. The majority of the application site enjoys informal recreational uses through a network of linking permissive footpaths through the areas of open grassland and cattle grazing, suitable for walkers and cyclists, created by the landowner. Details of these paths and land uses are provided on the owners website¹.

2.11 A formal public footpath is routed in the vicinity of the western boundary of the application site.

Access

2.12 Access into the site can currently be gained off Albatross Way at NGR TL 207085. The southern boundary of the application site is formed by the A1057. As set out in Section 3 below, it is proposed that a new access would be constructed onto this road, to the west of Popefield Farm. The A1057 provides a link with the A1(M) at junction 3, together with the A414 and A1001.

THE SURROUNDING AREA

Context

Landscape

2.13 The broader area around the application site is typically flat. “Area 31 De Havilland Plain” within the Welwyn Hatfield Landscape Character Assessment (Hertfordshire Landscape Strategy) describes how it “*represents a subtle watershed between the Colne and the Lea. Levels vary by as little as 2-3m over 6km. The land rises locally to the west and south*”. The altitude range is describes as “*Typically around the 80m contour but falling to*

¹ <http://hatfieldbusinesspark.co.uk/things-do/ellenbrook-fields>

70m at Ellenbrook and rising to 100m within the undulating grounds of Oakland College on the edge of St Albans.”

- 2.14 The Ellen Brook runs in a north to south direction approximately 300m east of the proposed mineral extraction area. As noted above, the River Nast currently runs in a culvert across the application site.
- 2.15 There are blocks of woodland to the north of the application site, including Home Covert, Cut Field Wood and Ball's Covert and areas of ancient woodland within 5km of the application site (Symondshyde Great Wood, Home Wood, Oak Wood, Hazel Grove and Hooks Wood).
- 2.16 “Area 31 De Havilland Plain”, describes how there is very limited woodland cover, few hedgerows (except to some of the roads) and few isolated trees. The vast majority of the land has been disturbed over the last century. Some of the former mineral workings support a mix of flooded gravel pits, scrub and marshland habitats.

Land Use

- 2.17 To the south of the application site the area is rural, interspersed with small settlements, areas of woodland and the highway network; clusters of housing can be found fronting the highway network, often being developing around road junctions. An area of industrial development lies to the south of the A1057, west of Station Road (in the vicinity of Smallford). To the southwest of the application site are a garden centre (operated by Notcutts), a public house, a petrol station, some large glass houses (nurseries) and a small residential area.
- 2.18 To the north, the area is similarly rural. Immediately to the north are a series of lagoons associated with an existing mineral working (Hatfield Quarry, CEMEX); the processing plant lies to the northwest of the application site, having its access off Oaklands Lane. Also immediately to the north is an area of woodland (Home Covert).
- 2.19 To the east of the application site is the urban area of Hatfield, with an industrial/distribution estate, residential development and the University of Hertfordshire campus present. Between the application site and Hatfield lie the remainder of the former aerodrome, surface water drainage infrastructure (an open drain and series of lagoons, known as Ellenbrook Linear Park) and some sports pitches and associated pavilion.
- 2.20 Finally, to the east the rural aspect gives way to the urban area of St Albans.

SITE HISTORY

- 2.21 Based on a review of historical maps from the period 1937 to 2011 the salient features mentioned in Table 2-1 below.

Table 2-1
Historical Map Features Summary

Year	Site	Wider Area
1937	<ul style="list-style-type: none"> The application site comprises fields and pasture. Home Covert is as today with a small cottage, a pond and paths crossing through the woodland. The Nast follows its current open water and culverted route. The Ellenbrook is not recorded. A Race Track occupies an area northwest of Popefield Farm 	<ul style="list-style-type: none"> East: Fields and pasture. West: Fields and pasture. North: Astwick Manor, fields and woodland. South: Some housing, nursery/greenhouses and fields.
1960	<ul style="list-style-type: none"> The application site is completely within the former Hatfield Airfield with the runway extending northeast to southwest across the centre of the application site, with part of the taxiway skirting the southern side of the development area. Home Covert is an area of woodland on the northwestern boundary that appears to occupy the same area as today. Remaining areas appear to be open and undeveloped. The Nast is shown flowing onto site at the northwestern boundary before ending on the northern side of the runway where it enters a culvert (as today) The Ellenbrook is not recorded. 	<ul style="list-style-type: none"> East: Airfield and aircraft works to the northeast West: Woodland and fields North: Astwick Manor, fields and woodland. South: Housing, nursery/greenhouses and fields
1975	<ul style="list-style-type: none"> As 1960 	<ul style="list-style-type: none"> As 1960
1990	<ul style="list-style-type: none"> As 1975 	<ul style="list-style-type: none"> As 1975
1999	<ul style="list-style-type: none"> As 1960 The outline of a small rectangular industrial area north of Home Covert is suspected to be related to aerodrome operations in the 1990s. Further examinations of historical aerial photographs of this feature are intriguing but not entirely clear. A small area southwest of Home Covert is an aircraft parking stand with a fire training area. Further detail is shown on the historical aerial photographs 	<ul style="list-style-type: none"> The aerodrome works buildings have been removed and new commercial buildings are cover about 30% of the former aerodrome works.
2006	<ul style="list-style-type: none"> The Ellenbrook is not present The runway has been removed. The taxiway remains. The rectangular area northeast of Home Covert remains. Ellenbrook is present in its current form. 	<ul style="list-style-type: none"> The runway has been removed and has been largely replaced with commercial warehouse-like buildings and some residential properties. Aircraft works buildings southeast of the aerodrome taxi-way have been demolished and are in the process of being replaced with new commercial

Year	Site	Wider Area
2011	<ul style="list-style-type: none"> The runway has been removed. The taxiway remains. The rectangular area northeast of Home Covert remains. The Nast remains culverted across the application site. The Ellenbrook is in place. 	<p>buildings.</p> <ul style="list-style-type: none"> Hatfield University buildings/campus is in place. Ellenbrook balancing lagoons are in place adjacent to the application site. Northeast: The aerodrome buildings have been redeveloped with additional commercial buildings. Residential property has been built east of Ellenbrook. Hatfield University is built to the south of the residential buildings. Northwest: Mineral extraction and lagoons are present along the northwestern site boundary.

CONTENTS

Introduction	3-1
Overview of the Development Proposals.....	3-1
General Arrangement.....	3-2
Construction Phase.....	3-3
Site Access	3-3
Plant Site	3-4
Recharge Lagoons	3-5
Soil and Overburden Stripping.....	3-6
Translocation of great Crested Newts and Badger	3-7
Operational Phase	3-7
Overview	3-7
Phase Preparation – Phase A	3-8
Mineral Extraction – Phase A	3-9
Mineral Processing	3-10
Infilling Operations.....	3-10
Hours of Operation	3-11
Lighting.....	3-11
Environmental Controls	3-12
Socio Economic Issues	3-15
Restoration Phase	3-15
Progressive Working and Restoration.....	3-16
Restoration Landform	3-17
Restoration Profiles	3-18
Restoration Phasing and Techniques	3-19
Restoration After-uses and Techniques.....	3-20
Aftercare.....	3-21

INTRODUCTION

- 3.1 This chapter describes the development for which planning permission is sought. These development proposals have been formulated following a thorough site investigation and assessment of potential environmental impacts arising from the scheme.

OVERVIEW OF THE DEVELOPMENT PROPOSALS

- 3.2 The applicant is submitting a planning application for the establishment of a new quarry on land at the former Hatfield Aerodrome, being part of the allocated site referred to in the extant Minerals Local Plan ("*Preferred Area 1*", and illustrated on Inset Map 6 - refer to Chapter 2 above and 4 below for further information). The proposals would involve the winning and working, together with processing for sale, of some 8Mt of sand and gravel over a period of around 30 years (based on an annual output of around 250,000tpa). In parallel with the extraction of minerals would be the importation of low permeability inert material to infill the mineral workings to facilitate the restoration of the site to a beneficial after use, combining recreation and nature consideration. The imported material would typically comprise excavation wastes from construction and engineering projects (soils, overburden, clays etc.) within the region.
- 3.3 The quarry would be worked on a phased basis to allow for progressive restoration. Sand and gravel would be worked from two discrete horizons; the Upper Mineral Horizon ('UMH'), which lies predominantly above the water table, would be worked dry whilst the Lower Mineral Horizon ('LMH') would be worked wet (i.e. limited dewatering of the workings). Above the UMH is a clayey material (referred to as '*overburden*') on top of which is the soil horizon. The two mineral horizons are separated by a laterally continuous layer of boulder clay (referred to as '*interburden*'): the overburden and interburden would be used to control groundwater ingress and to infill the base of the workings to provide a suitable low permeability geological barrier on top of which the imported material would be placed.
- 3.4 Excavated material would be processed at the quarry using a combination of screening and washing plant to produce a range of graded aggregates and sands. Processed aggregates would either be dispatched from the site in HGVs or used in ancillary 'downstream' plant (a 'concrete batching plant') located within the plant site for the production of concrete. Processed aggregates and concrete (together with the import of cement) would be exported via a new access constructed onto the A1057 (Hatfield Road) on the southern side of the quarry.
- 3.5 Other ancillary development would include a weighbridge, office accommodation, electrical transformer, electrical switch-room, and small stores and maintenance building, fresh water and silt lagoons.
- 3.6 In order to demonstrate the acceptability of the development proposals, a comprehensive development scheme has been prepared and is described in

this chapter. The scheme addresses the establishment, phased operation and restoration of the quarry together with detailing the ancillary infrastructure needed to support the operation. The development has been designed to ensure that the potential environmental impacts are avoided or minimised. This underlines the applicant's intentions and responsibilities to conduct its activities as a responsible neighbour and in a manner which is sympathetic to local amenity and causes minimal disruption to the local community. The mitigation measures identified as being necessary during the course of the EIA form part of the development proposals. In preparing the working scheme, consideration has been given to the following:

- proximity of dwellings (existing and proposed) and the likely environmental impacts in terms of noise and air quality;
- archaeological considerations
- ecological considerations;
- visual and landscape impact;
- hydrology and hydrogeology; and
- traffic generation and movements

3.7 The proposed development of the site is illustrated in Drawing Nos. HQ3/1 to HQ3/12 as follows:

- HQ 3/1 shows the overall phasing / general layout of the quarry;
- HQ 3/2 shows the entrance design;
- HQ 3/3 shows the plant site (masterplan);
- HQ 3/4 shows the plant site layout (detail);
- HQ 3/5 shows the elevations of the processing plant;
- HQ 3/6 shows the initial site preparation works;
- HQ 3/7 shows development within Phase A;
- HQ 3/8 shows development within Phase B;
- HQ 3/9 shows development within Phase C;
- HQ 3/10 shows development within Phase E;
- HQ 3/11 illustrates the final restoration masterplan; and
- HQ 3/12 provides illustrative cross sections.

GENERAL ARRANGEMENT

3.8 The new quarry would comprise the following key elements:

- new access onto the public highway and internal access road;
- plant site including processing plant, stockpiles, weighbridge, office, concrete batching plant and other ancillary facilities;
- peripheral screening mounds;
- infiltration lagoons; and
- mineral extraction area divided into 7 phases.

3.9 Drawing HQ 3/1 illustrates the overall layout of the proposed quarry.

CONSTRUCTION PHASE

- 3.10 Initial developments associate with the establishment of the quarry would involve the following operations:
- establishment of a new site access onto A1057 and construction of internal roadways linking the access to the plant site;
 - creation of mitigation ponds/habitat for translocation of great crested newts;
 - stripping of soil resources from operational areas, including plant site, fresh water/silt lagoons, haul roads and initial phase of mineral extraction;
 - placement of soils into screen mounds located on the periphery of the site;
 - undertaking initial landscaping works;
 - creation of temporary permissive paths within the site to retain areas for public access;
 - erection of processing plant, concrete batching plant and ancillary facilities;
 - excavation of freshwater and silt lagoons; and
 - excavation of the two recharge lagoons.

Site Access

- 3.11 A new entrance off the A1057 (which runs on the southern boundary of the application site) would be constructed close to the south western corner of the application site at NGR TL 198078.
- 3.12 Technical guidance provided within DMRB TD42/95¹ states that the use of 'simple' priority junctions, in new build situations, is appropriate up to a level of 300 vehicles Annual Average Daily Traffic (AADT) 2-way flow on the minor arm. An AADT 2-way flow of 500 vehicles is quoted as being the desirable maximum level of use for an existing junction without upgrading being considered, or where vehicles waiting on the major road to turn right inhibit the through flow and create a hazard.
- 3.13 As noted in Chapter 7 of Volume 2 it is considered that in view of the 40mph speed restriction in place on the A1057 at the site entrance and the fact that there have been no existing highway issues identified within proximity of the application site, a 'simple' priority junction would be acceptable where there would be no significant queuing into the proposal site causing stacking on the highway.
- 3.14 The site access is designed with a carriageway width of 8m which forms a simple priority junction with the A1057. The junction would have 15m entry and exit kerb radii and a 1 in 12 taper, designed in order to comfortably accommodate all vehicle requirements. The internal access bends would also have a centreline radius of 20m to accommodate the necessary HGV

¹ Design Manual for Roads & Bridges TD42/95 Geometric Design of Major/Minor Priority Junctions.

swept-paths. Drawing HQ 3/2 illustrates the proposed site entrance in terms of highway geometry.

- 3.15 In order to accommodate the entrance and associated visibility splay a section of the hedgerow that bounds the site/A1057 would need to be cleared. This would be undertaken outside of the bird breeding season (taken as being March to August).
- 3.16 As noted above, soils would be stripped from the footprint of the site entrance and internal access road. These soils would be placed into storage mounds located on the periphery of the site, in the vicinity of the site entrance. The line of the access road follows the western edge of the extraction area, lying at least 10m to the east of a National Grid gas main. On the western edge of the access road a new drainage ditch would be cut to intercept surface water. Allied to this, a 3m high acoustic fence would be constructed to the west of the access road.
- 3.17 A new fence would be erected behind the line of the visibility splay, behind which would be planted a double row of hedgerow plants. In view of the need to deter unauthorised access into the site, the fence would be post and rail, with barbed wire on top.
- 3.18 From the site entrance, the internal road to the plant site would be constructed to a similar specification for around 30m. Beyond this the access road would be constructed from as-dug sand and gravel from the UMH and compacted. At the start of the hard surfaced section of access road would be a wheel wash.

Plant Site

- 3.19 The plant site would be located to the north of the mineral extraction area and west of Home Covert (woodland), covering an area of around 11ha. The main items within the plant site would be the aggregate processing plant; stockpile of as-dug material (surge pile); aggregate stockpiles; a concrete batching plant; weighbridge and attendant office; administration building; fresh water lagoon and a small silt lagoon.
- 3.20 Prior to commencement of the construction of the processing plant, the Nast would be diverted to a new line around northern and eastern edge of the application site. The Nast is understood to be ephemeral and have low flows of surface water.
- 3.21 Soils would be stripped to a depth of around 1m from the footprint of the plant site and placed into storage mounds located to the north, east and west of the plant site. As dug sand and gravel excavated from the infiltration lagoons (see below) would be used to raise levels within the plant site by around 0.5m above original ground levels.
- 3.22 The processing plant would be a conventional static design (as opposed to an arrangement of mobile plant) and comprise the following elements:

- feed hopper;
 - primary screen;
 - washing plant and main screens;
 - cone crusher;
 - linatex sand tower.
- 3.23 The primary screen, washing plant/main screens and cone crusher would be housed within individual buildings (referred to as 'houses'), clad with plastic coated profiled sheeting; this cladding would be olive green in colour (for example BS 12B27/RAL 100 30 20² or similar). Between the plant buildings would be a series of inclined conveyors, housed within a steel gantry. The primary screen house would be 8m in height, occupying a footprint of 5.4m by 8.4m. The washing/main screen house would again be 8m in height (at its highest point), and 16.6m by 5.4m in plan. Finally the crusher house would be 8m in height and 7.4m by 7.4m.
- 3.24 Drawing HQ3/3 shows the layout of the plant site, whilst Drawing HQ3/4 illustrates the layout of the processing plant in more detail. Drawing HQ 3/5 shows the elevations of the processing plant.
- 3.25 The concrete batching plant would be located at the south western corner of the plant site. The precise detail of this plant is not currently known as it is dependent upon the final choice of manufacturer. Notwithstanding this, a typical plant is shown in Appendix 3/1. This plant would comprise a feed hopper; aggregate storage bins; mixer and loading head; cement silos and water tanks. Ancillary to the plant would be several storage bays for the aggregates and a control cabin.
- 3.26 Ancillary to the processing would be an electrical transformer, electrical switch-room, and small stores and maintenance building. These would all be constructed from block work.
- 3.27 The final building of note (in terms of size) would be the office and welfare accommodation. This would be four 'portacabin' style temporary buildings with overall dimensions of approximately 12m long, by 3.4m wide, by 2.6m high. These would be used as sanitary and drying facilities, mess room, site offices and meeting room/s.
- 3.28 The plant site would also have two surface mounted weighbridges with attendant weighbridge office.

Recharge Lagoons

- 3.29 Two water recharge lagoons would be excavated on the eastern boundary of the application site. Again, soils would be stripped from the entire footprint of the two lagoons (together with a narrow strip along the western and southern boundaries) and placed into storage mounds located on the periphery of the application site. Overburden would then be stripped and the underlying UMH

² TATA Steel Colorcoat HPS 200

http://www.colorcoat-online.com/static_files/StaticFiles/Colorcoat%20HPS200%20Ultra%202012%20colour%20card%20UK.pdf

extracted from the footprint of the lagoons: overburden would be used to form the peripheral 'seal' and internal walls to the lagoons, with surplus used to form the peripheral screen mounds. The northern lagoon would be excavated down to the top of the interburden horizon while the southern lagoon would be excavated into the LMH following removal of the interburden horizon: as such there would be the potential for the concurrent extraction of interburden and mineral.

- 3.30 The mineral would be extracted using either a 30t or 40t 360° hydraulic excavator (such as a CAT329 or CAT336 respectively), which would load the as-dug mineral onto an articulated dump truck (such as a CAT 735 or Volvo A35 or A40) for transportation to the plant site. The mineral would be extracted on a campaign basis (akin to a soil and overburden strip) and so a fleet of four to six dump trucks would be employed.

Soil and Overburden Stripping

- 3.31 The sand and gravel deposit is overlain by a layer of overburden, subsoil and topsoil which varies in depth across the site. Soil stripping would be undertaken on a campaign basis (i.e. for a concentrated period lasting several weeks, as opposed to constantly throughout the year).
- 3.32 The soil and overburden would be stripped using a hydraulic excavator and transported across the site to the storage locations in articulated dump trucks. Soils would only be moved when they are dry and friable in order to ensure that their structures are not compromised. All soil stripping, handling and storage operations would be carried out in accordance with MAFF's Good Practice Guide for Handling Soils, published in 2000. The key points being as follows:
- no topsoil shall be removed from the site;
 - topsoil, subsoil and overburden would be stripped separately;
 - all soils would be handled when in a dry and friable condition by monitoring the lower plastic limit before works commence;
 - topsoil, subsoil and overburden would be stored "like on like", so that for example, overburden storage areas would be stripped of soils in advance;
 - loose-tipping and grading of soil materials, to specified restoration profiles, would be carried out using tracked excavator or low ground pressure bulldozer;
 - no heavy wheeled earthmoving vehicles or machines to run over un-stripped or replaced soils to minimise compaction;
 - following mechanical de-compaction, all stones and rocks exceeding 0.15m in any dimension and other deleterious material would be removed from the topsoil; and
 - soils would be placed early enough in the year to allow grassland vegetation to be established before the winter and reduce the risk of erosion.

- 3.33 All topsoil stripping and other site preparation works that involve ground disturbance would be carried out with due regard to the scheme of archaeological investigation which would be agreed with the MPA.
- 3.34 Stripped soils would be placed into storage mounds located around the periphery of the application site. In line with best practice these would have a maximum height of 3m (to avoid compaction) compared to the 4m-5m proposed for overburden storage mounds. The outer slopes of the storage mounds would have a gradient of 1:3 along the frontage to Hatfield Road, the playing fields, and adjacent to the public footpath, with gradient of 1:2 elsewhere.
- 3.35 Drawing HQ 3/6 shows the areas from where soils would initially be stripped, the volumes arising and where this material would be stored.

Translocation of great Crested Newts and Badger

- 3.36 As set out in Chapter 11 of Volume 2, Great Crested Newts have been identified in four ponds within the application site. Two of these ponds are located between the recharge lagoon and Home Covert and thus the design of the scheme seeks to avoid any disturbance to these ponds. Works would though be undertaken in close proximity, and thus a scheme of exclusion would be needed to ensure that areas to be stripped were clear of the species.
- 3.37 Two other ponds, located to the south of the Nast lie within the development footprint of the plant site/extraction area within Phase C. Both of these ponds would be lost to the development and thus a scheme of mitigation would be required: this would involve the creation of new ponds, (on a two for one replacement ratio) and habitat. The precise detail of the mitigation scheme would be set out in an application for a European Protected Species Licence submitted to Natural England. As part of the initial works, a scheme of exclusion would be needed.
- 3.38 Similarly, as identified in chapter 11, a single badger sett would need to be relocated; again the precise detail of the mitigation scheme would be set out in an application for a European Protected Species Licence submitted to Natural England.

OPERATIONAL PHASE

Overview

- 3.39 It is proposed to develop the mineral deposit on a phased 'cellular' basis, whereby the workings advance in a general westerly direction with progressive restoration following behind. As noted above, the phasing of the workings is illustrated on Drawing HQ 3/1. Each phase is anticipated to sustain production for around four years and sand and gravel would be extracted from both mineral horizons. The UMH would be progressively worked across each phase to its full depth to expose the interburden horizon, and removal of the interburden would take place in a series of smaller 'cells'

to allow extraction of underlying mineral from the LMH once the UMH above each area of interburden has been removed. The depth of LMH extraction would be equivalent to the volume of acceptable site derived barrier and restoration material but at no time would it extend below 1m above the Chalk surface.

- 3.40 The UMH would be sealed at the perimeter of each phase with a low permeability bund wall keyed into the interburden and equipped with a back-wall drainage system. This would prevent further UMH groundwater flow into each phase. Once sealed remaining groundwater within the UMH would be pumped to the UMH recharge lagoon. If required, groundwater head in the LMH would be lowered during removal of the interburden in advance of excavating the LMH. Dewatering of the LMH would only be undertaken if required and while recharge capacity remains in the LMH recharge lagoon. The majority of the LMH layer would be excavated 'wet' (beneath water).
- 3.41 Following completion of mineral extraction from each LMH cell, suitable overburden and interburden would be placed into the base of the workings to raise the operating level to above the level of the groundwater in the LMH, at which point an engineered thickness of barrier material would be installed and keyed into the surrounding interburden or previously engineered barrier material. The remaining void would be infilled with suitable onsite and imported inert restoration material.
- 3.42 Each phase would be worked in a similar fashion and thus a description is provided for Phase A, which is located in the south eastern corner of the application site, and this is indicative of the approach that would be taken for all later phases.

Phase Preparation – Phase A

- 3.43 Each phase would be divided into sub-phases based on providing a working area capable of sustaining production for between 18 and 24 months to allow for fluctuations in market demand. Vegetation would be cleared from the initial sub-phase followed by the stripping of soils (again incorporating a narrow strip from the adjoining phase to the north to allow the construction of a cell wall). Stripped soils would be placed into storage mounds (3m in height) located on the periphery of the working area, extending the bunds previously created as part of the site preparation works adjacent to Hatfield Road. Overburden would be excavated, initially from a strip around the periphery of the phase to allow for the creation of the back-wall drainage system and placement of low permeability seal. The edge of the phase would be cut to a 1:1 slope, with the low permeability material placed in an engineered fashion to create a slope of 1:3. It is proposed to use overburden for the peripheral seal; however, should suitable clay be available for importation then this would also be imported into the site. Any surplus overburden would be used directly, or temporarily stockpiled in the working area pending placement, within the base of the mineral void following extraction of the LMH (see below).

Mineral Extraction – Phase A

- 3.44 The development of Phase A is illustrated on Drawing HQ 3/7. In view of the two mineral horizons the UMH needs to be worked first to expose a suitable area of the interburden to provide safe access to the LMH. The UMH would be worked in a conventional manner, and in a similar fashion to the recharge lagoons described above. The UMH would be partially saturated to varying degrees dependent upon phase location and season, so dewatering would be necessary using a combination of drains and pumps, with extracted water pumped to the UMH recharge lagoon.
- 3.45 The UMH would be excavated using a 30t or 40t hydraulic excavator, which would load the as-dug mineral onto an articulated dump truck for transport to the as-dug stockpile located on the eastern side of the plant site. Again, a fleet of four to six dumpers would be employed, depending on the haulage distance. The dump trucks would be routed on internal haul roads; initially along the eastern edge of the application site to the west of the recharge lagoons. As the excavation progresses to depth, temporary ramps would be created to provide access for machinery and service vehicles.
- 3.46 Monitoring results show that the LMH at Phase A is unconfined for the majority of the year. Unlike some of the other phases this means that the interburden can be simply removed to excavate the LMH beneath with no requirement for LMH groundwater head control.
- 3.47 If the groundwater in the LMH were confined by the interburden in Phase A then the LMH groundwater would be pumped using boreholes such that the head (pressure) beneath the interburden becomes locally unconfined, enabling the interburden to be excavated. Once the initial area of interburden were removed the pumping could cease, unless it were decided to continue in order to optimise machine operating efficiency. Pumped water would be transferred to the LMH recharge lagoon.
- 3.48 The interburden would then be progressively removed in cells/strips measuring approximately 100m by 30m to expose the LMH after which the LMH would be excavated 'wet'. The initial strip would be located where ground water is at its lowest and be orientated parallel to the groundwater contours. The excavation would then progress up hydraulic gradient across the phase, which for Phase A is in a westerly direction.
- 3.49 For the initial strip, the interburden would be temporarily stockpiled within the workings pending placement into the worked out void. In subsequent strips, the interburden would be placed directly into the void. The LMH would be extracted, again using a 30t or 40t hydraulic excavator, with the excavator sitting on a platform slightly above the mineral.
- 3.50 Monitoring of groundwater levels at the application site shows that they are at their lowest between July and December (i.e. the last half of the year). In view of this and to avoid the need for pumping, much of the LMH would be excavated by campaign for up to six months in the year (divided into two or

more campaigns). As with the UMH, as dug mineral would be transferred to the plant site using articulated dump trucks (typically a fleet of up to six).

- 3.51 Development within subsequent phases is illustrated on Drawings HQ3/8 (for Phase B) to HQ 3/10 (for Phase E).

Mineral Processing

- 3.52 All mineral excavated at the site would be processed on site. As set out above, as-dug material would be transported from the working area and placed within a stock pile located on the eastern side of the plant site.
- 3.53 From the stock pile, as-dug material would be placed into the feed hopper of the processing plant by a rubber tyred loading shovel (such as a CAT 972 or Volvo L180) from where it would be conveyed into the primary screen (in the "Primary Screen House"). The primary screen would take off the oversize stone (i.e. greater than 100mm) and the fine fraction (sand) via two vibrating screens. The oversize material is stockpiled for sale/reprocessing, whilst the fine fraction is transferred to the sand plant. From the primary screen, the middle grading of material (i.e. 4-100mm) would be transferred via a conveyor to a scrubber mill and further screens within the "Washing and Screen House" (refer to Drawing HQ 3/2). Material passing over all the screens (i.e. too large, and generally over 20mm) is conveyed to the crushing house where it is fed into a cone crusher to reduce its size and then returned via conveyor to the screens. The screens spilt off the gravel into three fractions graded by size which are conveyed to stockpiles.
- 3.54 Periodically, material from the stockpiles would be transferred to larger stockpiles by rubber a tyred loading shovel.
- 3.55 Processed aggregates would be exported from the site by HGVs; typically these would be articulated lorries or rigid bodied tippers. Each lorry would, on entry to the site, be weighed in, and then loaded by a rubber tyred loading shovel. The HGV would then pass over the weighbridge again before leaving the site.
- 3.56 Some of the processed aggregates would be transferred to the on-site concrete batching plant where they would be used to manufacture concrete. The batching plant takes pre-determined quantities of sand, gravel, cement and water (together with any other additives) to produce the concrete in batches, and transfers via gravity into the back of a truckmixer.

Infilling Operations

- 3.57 Preliminary discussions with the Environment Agency has established that the void left from the removal of the 'LMH' and interburden should be replaced with site-won, low permeability cohesive material but could also include suitable materials imported for the formation of both geological barrier and infilling.

- 3.58 The rationale for placing inert low permeability geological barrier material up to the upper surface of the interburden is founded on the principle that perched groundwater within the UMH is kept separate from regional groundwater in the LMH: this is to minimise the potential for mixing of groundwater in the lower regional aquifer with local perched groundwater.
- 3.59 In view of this, surplus overburden and interburden would be progressively placed in the base of the mineral workings to raise basal levels; the indigenous material would be placed against the sides of the phase to above the level of the groundwater in the LMH, above which an engineered barrier of indigenous interburden/suitable overburden would be used to provide an effective seal to prevent the mixing of ground water. This engineered barrier would be keyed into the surrounding interburden or previously engineered barrier to provide a continuous seal, on top of which the imported inert material would be placed.
- 3.60 In order to be able to provide a suitable final landform (as illustrated on Drawing HQ 3/11) suitable inert fill materials would be imported. This material would be sourced from the construction and demolition waste sector within the region, and typically imported in 20t loads by rigid bodied tippers.
- 3.61 Details relating to the management and control of imported materials would be regulated through the Environmental Permit. In brief, each load imported would be inspected at the weighbridge for compliance with the waste transfer documentation. If the load is found to be inconsistent, the importing vehicle would be turned away. Once accepted, the importing vehicle would be directed to the disposal area where the load would be tipped and a further inspection undertaken. The load would then be placed within the tipping area and compacted by a tracked bladed machine (often referred to as a bulldozer, such as a CAT D6 or similar).

Hours of Operation

- 3.62 The quarry would operate to the following hours:

Site preparation works (stripping, bund formation); mineral extraction, restoration (including infilling), processing and dispatch of aggregates:

- 0700 hours to 1800 hours Monday to Friday
- 0700 hours to 1300 hours Saturdays

No operations on Sundays or bank holidays save for emergency repairs.

Lighting

- 3.63 External lighting would be required around the plant site during the winter months. Lighting would be on mounted poles. All lights would be directional in order to minimize light spill, glare and sky glow, and would be aligned to ensure that the upper limit of the main beam does not project upwards. In

particular, guidance provided by the Institution of Lighting Engineers³ and the former Good Planning Guide (GPG) 10 "*Lighting in the Countryside*" would be adhered to.

- 3.64 It is not proposed to excavate the sand and gravel after dusk and thus no lighting would be required within the extraction area.

Environmental Controls

- 3.65 The EIA process has identified a number of measures that could be employed to ameliorate the effects associated with the operation of the quarry. Some relate to operational practices to help safeguard the amenity of local resident whilst others relate to the design of the quarry (for example associated with ground water protection).

Dust

- 3.66 As set out in Chapter 9 of Volume 2, a number of mitigation measures are proposed to ameliorate the generation of dust from the development of the quarry. These include:
- use of water as and when necessary, particularly in the event of dry and windy weather;
 - vehicles transporting soil/overburden/mineral not overloaded;
 - reduction of drop heights;
 - minimise double handling of material;
 - phased activity to minimise the duration of activity;
 - avoid soils handling during adverse weather conditions;
 - optimise timing regarding weather and seeding season. Seed as soon as possible;
 - soil bunds and mounds profiled to minimise windblown dust;
 - temporary cessation of activities in the event of unacceptable dust emissions in the vicinity of receptor properties;
 - where material contains less than 3mm in size the material should be conditioned with water before the point of discharge into the pile;
 - areas around the base of the storage piles would be clearly designated to ensure passing vehicles do not disturb dusty material and the area should be kept clean and in good repair;
 - location of processing operations away from the closest receptors;
 - enclosure of transfer points with chutes;
 - cleaning belts with scrapers and dust catch plates;
 - materials are deposited carefully into screens by reducing drop heights and the correct matching of machine;
 - ensure base of stockpiles clearly marked and shielded from wind and keep moist in dry weather;
 - controlled use of haul routes;
 - haul routes to be regularly maintained by grading to minimise dust generation;

³ Guidance Notes for the Reduction of Obtrusive Light (GN01) (2005).
<http://www.ile.org.uk/documents/RLP%202005.pdf>

- speed controls of 10mph to be implemented on all haul routes;
- all vehicles exiting the site carrying material are sheeted or totally enclosed as soon as possible after loading and before leaving site; and
- wheel wash installed at the site entrance and used.

Noise

3.67 'Built in' mitigation includes the use of peripheral screen mounds at the edge of the working areas. As noted above, these would be 3m in height (for soils storage, in line with best practice) and 4m in height for the overburden storage mounds. In addition, a 3m high acoustic fence would be installed on the western side of the access road to protect properties to the west of the application site. Other built in mitigation includes cladding the processing plant and using broadband reverse warning systems on all mobile machinery.

3.68 In addition to the noise mitigation measures incorporated into the site design, good site management practices and other specific measures would also provide additional noise mitigation. These measures (as set out in Chapter 10) would include:

- activities within the review site would be undertaken in locations where noise attenuation from existing landforms would maximise the benefit to the noise-sensitive properties;
- internal haul routes would, wherever possible, be routed such that separation distances to the noise sensitive properties is maximised;
- all haul roads would be kept clean and maintained in a good state of repair to avoid unwanted rattle and "body slap" from vehicles;
- all mobile plant used at the proposed extension would have noise emission levels that comply with the limiting levels defined in EC Directive 86/662/EEC and any subsequent amendments;
- all mobile plant and heavy goods vehicles entering the site will move in a circular pattern to minimise, as far as is practical and safe, noise from reverse warning systems;
- plant would be operated in a proper manner with respect to minimising noise emissions, for example, minimisation of drop heights and no unnecessary engine revving;
- plant would be subject to regular maintenance. All plant at the site would be fitted with effective exhaust silencers and would be maintained in good working order to meet manufacturers' noise rating levels. Defective silencers would be replaced immediately;
- plant that is used intermittently, would be shut down when not in use; and
- pumps, generators and compressors would be located behind existing screening mounds or landform, would be electrically powered and fitted with an acoustic covers where necessary. Diesel powered pumps, generators and compressors, if used, will be installed within acoustic enclosures.

Water

3.69 The operation and restoration of the quarry would be undertaken using current technical guidance, relevant Pollution Prevention Guidelines, other

codes of best practice and consents, to limit the potential for contamination of both ground and surface waters.

3.70 Best practice techniques would be incorporated within the management procedures for construction and operation activities onsite in order to protect the water environment from pollution incidents. The mitigation measures can be summarised as follows:

- during construction there would be heavy plant and machinery required on site and as a result it is appropriate to adopt best working practices and measures to protect the water environment, including those set out in the Environment Agency's Pollution Prevention Guidance (PPG1);
- in accordance with PPG2 all above ground on-site fuel and chemical storage would be bunded;
- an emergency spill response kit would be maintained on site;
- a vehicle management system / road markings would be put in place wherever possible to reduce the potential conflicts between vehicles and thereby reduce the risk of collision;
- a speed limit would be imposed on site to reduce the likelihood and significance of any collisions;
- the proposed restoration scheme would also be subject to an Environmental Permit, the application for which would include appropriate measures to avoid unacceptable impact on the environment including water;
- surface water runoff would be contained within the excavation areas and all water would be discharged to a recharge lagoon, this would reduce the risk of suspended solids entering surface waters; and
- a detailed water management plan would be prepared and agreed with the Environment Agency prior to work commencing at the site.

3.71 As the UMH and LMH would be worked concurrently there is a risk that waters from the LMH could enter the UMH impairing its quality. Two separate recharge lagoons would be provided; one for the UMH groundwater and one for the LMH groundwater. LMH groundwater would only be discharged to the LMH recharge lagoon. UMH groundwater may be discharged to both lagoons subject to capacity requirements. Groundwater levels would be controlled in the LMH to ensure they do not rise above the level of the interburden and flow into the UMH. Discharge of LMH groundwater in the LMH lagoon would only be required in certain phases and during high water table conditions.

3.72 All groundwater pumped from the UMH and LMH/Chalk would be recharged back into the aquifer so that there would be no significant loss of resource. The recharge area is relatively close to the points of abstraction and it is not envisaged that there would be a significant impact on water resources in either aquifer.

3.73 Restoration of the void with imported inert material would make a barrier to groundwater flow within the UMH. A back-drain is therefore included in the design to ensure groundwater levels do not increase above historically high elevations.

- 3.74 The restoration operations would be operated under an Environmental Permit that would ensure activities do not pollute the water environment.

Socio Economic Issues

- 3.75 The quarry would have a core staff of 6 employees. This would comprise a manager, a foreman, 2 loading shovel operatives, 1 dozer operative, 1 concrete batcher and 1 weighbridge operative.
- 3.76 The number of staff would increase to 10 during earthmoving works which will be undertaken on a campaign basis. This would be over a temporary period.
- 3.77 Allied to this the quarry would generate a number of indirect employment opportunities associated with the haulage of aggregates/concrete and the provision of services, such as maintenance and engineering contractors, landscaping contractors as part of the supply chain. The quarry would contribute into the economy through taxes, business rates and aggregates levy contributions. The development would thus secure these employment opportunities and wider socio economic benefits into the long term.
- 3.78 National planning policy (refer to Chapter 4 below) recognises the importance minerals contribute to the national economy. Planning for mineral provision must be seen in the context of the wider economy and the government's growth agenda. In this context, the Government has made several announcements, and introduced new guidance and measures to promote the construction sector, notably house building. Allied to this, promoting new development and fostering the local economy is central to the aims of the district local plans through the allocation of land for housing and employment uses. Such proposals will require aggregate raw material to allow the various development projects to proceed, and the quarry is well placed and a vital component of continuity of aggregate supplies to such local projects.

RESTORATION PHASE

- 3.79 This section of the chapter details how it is proposed to restore the application site to a beneficial after-use which has the following aims:
- to progressively deliver a landscape which is similar in character and appearance to the existing Ellenbrook Fields;
 - to improve overall biodiversity interest and value at the site;
 - reinstate the current accessibility of the greenspace to members of the local public; and
 - fulfil all engineering requirements, in terms of managing surface water and groundwater environments at the site.
- 3.80 The landcover would consist of broad area of gently sloping conservation grassland (from west to east), divided by hedgerows and with some complimentary wetland and pond features, as illustrated by Drawing HQ 3/11.

- 3.81 At a more local level, areas of micro-topographical and substrate variation would be included to provide habitat diversity and enhancements (e.g. a range of species-rich grassland communities). The proposed waterbodies include both shallow scrapes, ponds and a deeper waterbody at the north-eastern end of the application site.
- 3.82 The scheme also aims to respond to the local landscape character of “Area 31 De Havilland Plain”, which extends from Cromerhyde in the north, southwards across the former Hatfield Aerodrome and up to the ground of Oaklands College on the edge of St Albans, as defined in The Welwyn Hatfield Landscape Character Assessment (2005), which *inter alia* refers to “an extensive level plain”. This is addressed further in Chapter 8 of Volume 2.
- 3.83 The Herts and Middlesex Wildlife Trust have several grassland-based nature reserves, including Hunsdon and Eastwick Meadows, which is one of the finest surviving unimproved grassland sites in the county. Also the local biodiversity action has targets for the recreation of neutral grassland, acid grassland and heathland; the aspiration for the restored application site is to contribute to these targets as far as is practical, either through interim management during working phases or long-term aftercare of the final restoration areas.
- 3.84 The proposed hedge planting and open ditch/swale layout uses the 1888 historic field pattern which existed on the application site prior to the aerodrome and other interventions, with the aim of reinstating the broader landscape setting of the Popefield Farm listed building. Some of this remnant field pattern is still present on site, whilst some has been lost.
- 3.85 This would also create potential linkages with the existing watercourses, hedgerows, woodland and tree belts around the perimeter of the application site.
- 3.86 In the document produced by Goodmans, titled “*Welcome to Ellenbrook Fields*” it describes how “*A series of linking permissive footpaths, suitable for walkers and cyclists have been created through the areas of open grassland and cattle grazing*”; this would be broadly replicated in the proposed restoration scheme.

Progressive Working and Restoration

- 3.87 The proposed progressive scheme of working and restoration aims to ensure that disturbance is limited and continued access is provided to Ellenbrook Fields, as far as possible.
- 3.88 For example the western parts would be largely undisturbed (except for the access road) until the later stages. Parking is available alongside Ellenbrook Fields at Notcutts Garden Centre to the south-west of the site on Hatfield Road, and access via the public right of way would be maintained throughout the development period, but according to certain restrictions and diversions at certain periods. Access points would be installed over the perimeter storage bunds.

- 3.89 The initial site preparation works are shown on Drawing HQ 3/6 which shows the new site access in the south-western corner and along the western part of the application site (whilst maintaining a standoff to the gas pipeline). The plant site, stocking and lagoon areas in the north and east would be stripped of soil and overburden and temporary storage mounds would be formed around the perimeters. The stripped areas of ground would then be built up as hardstanding using the mineral within the recharge upper and lower mineral lagoons in the east.
- 3.90 Subsequent establishment of each Phase would follow a logical sequence broadly working from east to west and where possible with soil and overburden direct placed onto worked out and backfilled void, to final restoration levels. However it is anticipated that, particularly during Phase A, soils and overburden may also need to be placed into temporary storage.
- 3.91 Detail methods of forming the perimeter seals within and around each phase will be determined as the development progresses.
- 3.92 The estimated volumes of site derived materials available from the proposed mineral extraction area are as follows:
- Topsoil (nominal 0.3m thickness) = 160,000m³;
 - Subsoil (nominal 0.9m thickness) = 478,000m³;
 - Overburden = 582,000m³; and
 - Interburden volume = 962,000m³.
- 3.93 In addition approximately 150,000m³ of topsoil and subsoil would be stripped from the access road, plant site and stocking area and areas of temporary storage (e.g. beneath subsoil or overburden) and then reinstated at the end of the development.

Restoration Landform

- 3.94 The final restoration landform would be based on imported inert material to backfill the worked out mineral voids near to existing ground levels, typically between 78m AOD in the west and 76m AOD in the east, to ensure that surface water can be directed towards the existing pipe which takes the Nast along the St Albans Road West.
- 3.95 An overflow at 75.5m AOD would be included within the waterbody to the north-east to also drain into this existing pipe. The invert of the existing Nast culvert along the side of the road is 71.78m AOD. The scheme aims to attenuate water flows and avoid flood risk.
- 3.96 A detailed landform design would be produced following the granting of planning permission to ensure minimum gradients typically from 1:100 to 1:200.
- 3.97 Overburden and interburden clays from the site would be used to provide basal lining, sidewall barriers and capping material for the tipping operation and subsequently covered by a restoration soil profile.

- 3.98 Approximately 235,000m³ of suitable material would be required for the external liner around the site perimeter; this is based on a mineral cut of 1:1 down from extraction limit through the soil, overburden and upper mineral horizon down to the top of the interburden clay and then the amount of material needed to backfill to original ground levels, with a 5m wide crest at the top and 1:3 side slopes. Of this approximately 20,000 m³ would need to be restoration soil (which is the crest area x 1m thickness), with the rest as impermeable barrier.
- 3.99 A further 505,000m³ of suitable material would be required for the 1m thick engineered barrier / capping. The restoration soil profile would then be c1.2m thickness above this layer.
- 3.100 Thus the available 962,000m³ interburden volume exceeds the anticipated suitable material required for the external liner around the perimeter and the engineered barrier / capping.
- 3.101 The plant site, stocking and other ancillary areas would also be restored using replacement of stored restoration soil and residual mineral to create ridge and furrow landform, on average 1m in thickness.
- 3.102 The access road and a small car parking / turning area would be retained as hard standing for continued recreational access.

Restoration Profiles

- 3.103 All soil and overburden resources would be conserved and reused and therefore there would be a surplus amount of material available in comparison to those required; this is dictated mainly by the inclusion of the waterbody in the east and other ponds, scrapes and wetland areas of c8ha, which would not require any soil cover and also the use of a mixture of soil and residual mineral within 10ha of the plant site area, as part of acid grassland habitat creation area and any other preferential use of soil-forming materials as part of the target grassland habitats. The total area of disturbance requiring a restoration soil profile is c65ha and the available 788,000m³ of site-derived topsoil and subsoil volume would be sufficient.
- 3.104 All soils would be either direct placed onto final restoration areas or temporarily placed into storage / perimeter screening bunds. All bunds would be grass seeded, at the earliest available opportunity following construction.
- 3.105 Nevertheless, any potential new soils brought to site/recovered from the tipping operations would be inspected upon delivery to ascertain their suitability and quality, and any roots, debris or other undesirable materials present removed. The Planning Practice Guidance to the National Planning Policy Framework acknowledges the potential use of soil and soil-making materials where the after-use of mineral sites involves some form of plant growth.
- 3.106 Materials for use in species-rich grassland areas will have chemical and physical properties assessed, to ensure they deliver low fertility yet functioning restoration substrates capable of supporting these habitats in the

long term. For example, acidic or alkaline material will be set aside for the creation of distinct acidic/calcareous grassland habitat types in suitable locations.

- 3.107 Restoration material of intermediate nutrient status (i.e. too high for use in species-rich grassland, but not good enough for (or excess to that required for) tree planting might be best targeted to the water attenuation lagoons. Similarly especially clayey material may have a specific role in the formation of ponds in these areas.
- 3.108 This is summarised below, although precise characteristics will be determined in accordance with Table 1 in BS 3882:2015, as appropriate:
- multi-purpose topsoil and/or medium to high pH (5.5 to 8.5), high N, extractable P and K, clay or loams – trees & scrub, wet grassland / lagoons;
 - specific purpose, low fertility topsoil and/or mid pH, low/medium N, extractable P and K, loams – neutral grassland;
 - calcareous topsoil and/or high pH (7.5 to 9.0), low N, extractable P and K, clay or loam – calcareous grassland; and
 - acidic topsoil and/or low pH (3.5 to 5.5), low/very low N, extractable P and K, sand or loam – acid grassland.

Restoration Phasing and Techniques

- 3.109 The proposed development phasing would incorporate progressive restoration and landform development, involving annual programmes of soil handling, cultivations, seeding and planting undertaken at the earliest available opportunity. The details of the restoration programme would be reviewed with the mineral planning authority on an annual basis.
- 3.110 Compaction of the restoration soil layer would be avoided throughout all soil handling operations, as follows:
- stripping, loose-tipping and grading of soil materials, to specified profiles, would be carried out using tracked excavator or bulldozer in accordance with MAFF's Good Practice Guide for Handling Soils, published in 2000; and
 - soil would only be handled when in a suitably dry and friable condition by reference to the lower plastic limit.
- 3.111 The only exception to the prevention of compaction within the restoration soil profile might be some localised areas to encourage wetter conditions and opportunities for marshy grassland species within the overall grassland mosaic. The permanent ponds will be lined with clay/compacted base and sides, with associated boggy margins.
- 3.112 Contrasting soil units would be recovered, stored and replaced separately. For example by the use of geotextile separator or the recovery of *in-situ* units before the construction of storage bunds.

Restoration After-uses and Techniques

- 3.113 Table 3-1 below compares the areas of existing and proposed land cover areas for the application site.
- 3.114 In addition around 1km hedgerows would be planted as part of the reinstated historic field pattern, in conjunction with the 2km advance planting undertaken at the outset of the development.
- 3.115 Approximately 0.6km of public right of way would be reinstated along its original route and permissive access paths would also be returned along similar routes to existing. Approximately 1ha access road and a small car parking area / site offices would be retained for recreational purposes.

Table 3-1
Site Summary Areas

Land-cover	Existing Site 2015 (ha)	Proposed Restoration Scheme (ha)
Grassland Scrub	84.9	72.4
	(Not measured, included in grassland above)	3
Woodland Planting		1
Waterbodies / Ponds / Wetland		8.5
Hardstanding / Parking Area and Access Tracks	1 (estimated area of former runways, etc)	1
TOTAL	85.9	85.9

- 3.116 The restored surface would be initially cultivated to a fine tilth prior to drilling or broadcasting of the appropriate conservation grass seed mix (which would be based on substrate variation and characteristics to be determined) and sown to a low rate, typically of approximately 3-5g/m². In places this may be limited to bents and fescues and sown to allow a diverse sward to develop through natural colonisation.
- 3.117 If practicable seed material from a suitable donor site nearby may be used to aid species diversification, following consultation with the local Wildlife Trust or Natural England.
- 3.118 The proposed tree and shrub species mixtures for hedgerows and any other areas of advance planting would reflect the natural distribution of native trees and shrubs described by the Forestry Commission⁴ and also the nature of the restoration substrate, which would be inspected and assessed prior to planting.

⁴ Creating New Native Woodlands, Rodwell & Pattersen (1999), Forestry Commission Bulletin 112

- 3.119 All plants would typically be well-grown nursery stock as seed-raised transplants, 1+0 (1 year old transplant) up to 60cm in height, depending on species. All species will be derived from stock of local origin, as defined by the Forestry Commission's "Regions of provenance and seed zones in Great Britain".
- 3.120 All plant handling and planting operations will comply with relevant clauses of CPSE 'Handling and Establishing of Landscape Plants' (obtainable from the Horticultural Trades Association).
- 3.121 There is an area of open water in the north-east of the site that would benefit waterfowl and wader species. This would be achieved by constructing the with relatively steep banks of c1:3, to minimise the extent of marginal plant growth and omitting any perimeter tree and shrub planting.

Aftercare

- 3.122 The restored site would be closely monitored throughout the 5 year aftercare period so that the most suitable management regime could be defined on an area-by-area basis. An aftercare management plan would also be formulated in consultation with the MPA.
- 3.123 The management plan would consist of both an outline scheme, submitted at the outset that would provide the overall objectives for the management of the site and the main management operations, and an annual, detailed scheme that would be submitted to the planning authority in the autumn of each aftercare year. It is also proposed that an aftercare meeting would be held on an annual basis to discuss the condition of the site and to agree the aftercare requirements for the following growing season.
- 3.124 For all areas, requirements for secondary treatments would be reviewed on an annual basis throughout the aftercare period, in order to identify and remedy any localised problems. For example the following conditions would be assessed and remedied where necessary (to methods agreed with the local planning authority): differential settlement, land drainage, vegetation failure, stones/stone-picking.
- 3.125 Fertiliser requirements would also be assessed on an annual basis throughout the aftercare period.
- 3.126 It is acknowledged that under the provisions of the Weeds Act 1959, it is the responsibility of all occupiers of land, whether used for agriculture or not, to control injurious weeds so that they do not spread. For all areas, weeds would be controlled by the appropriate application of herbicides by a certified competent person, according to manufacturer's instructions or, in areas of grass, by cutting or grazing.
- 3.127 The new grassland mosaic would be mown twice during the first season to increase tillering. Cuttings would be removed from site where necessary to prevent the cut material suppressing germination and to remove a potential source of nutrients that might otherwise enrich the substrate and encourage colonisation by competitive grassland and ruderal species.

- 3.128 It may be necessary to apply brashings and/or further seed in subsequent seasons to aid the establishment of target species. This would be carried out as part of the September to November maintenance visits.
- 3.129 Grazing with sheep would be introduced as soon as appropriate, according to stocking densities to be agreed determined.
- 3.130 All new tree and hedgerow plants would be protected and maintained to a 1m diameter weed free condition. Plants, guards and canes which have become loose, over-tight or broken would be re-firmed and adjusted on an annual basis.
- 3.131 The general aims of the water body management would be to improve water quality, increase biodiversity and enhance amenity and appeal. Monitoring of the waterbody will be as follows:
- Water quality would be assessed by identifying concentrations and sources of pollutants (nutrients);
 - Biodiversity would be assessed by carrying out surveys for aquatic plants, zooplankton and invertebrates;
 - Amenity and appeal of the lakes would be assessed by visual inspection, to include erosion, odour, plant and animal deaths; and
 - Freshwater algae would be monitored in particular, excessive accumulations of foams, scums and discolouration of the water. The Environment Agency would be contacted for advice in the event of algae bloom appearing on the site in response to the threat to wild and domestic animals, fish and humans.
- 3.132 All planting/seeding failures would be replaced on an annual basis, during the first two years of aftercare, to ensure 100% maintenance to the agreed densities/land cover. All replacements would use plants of the same species or other such species as may be agreed with the local planning authority. If abnormal plant or tree failure persists then investigations and proposals for the remedying of site conditions would be prepared and agreed with the local planning authority.
- 3.133 Reinstatement of footpaths and public access would also take place during the aftercare period, when it is considered safe to do so and where it won't be detrimental to the establishment of the habitats and land cover.

CONTENTS

Introduction	4-1
The Development Plan.....	4-1
Legislative Background	4-1
Minerals Local Plan Review.....	4-3
Waste Core Strategy and Development Management Policies	4-7
Waste Site Allocations Document.....	4-11
National Policy	4-11
General	4-11
The NPPF	4-11
Protection of the Environment	4-14
Landscape.....	4-15
Natural Environment.....	4-17
Historic Environment	4-19
Water Environment.....	4-22
Transport.....	4-23
Pollution and Amenity of Local Communities	4-24

INTRODUCTION

- 4.1 It is clear from published guidance that the Government is committed to a plan led system, with the Development Plan forming the basis of all planning decisions. Section 38(6) of the Planning and Compulsory Purchase Act 2004 (PCPA 2004) confers a presumption in favour of development proposals which accord with the Development Plan unless material considerations indicate otherwise. Sub Section 5 of Section 38 also states that, *“if to any extent a policy contained in a development plan for an area conflicts with another policy in the development plan the conflict must be resolved in favour of the policy which is contained in the last document to be adopted, approved or published (as the case may be)”*.
- 4.2 This principle has been developed and clarified by subsequent case law, which has confirmed that a particular proposal does not need to accord with each and every policy in a Development Plan; the key issue is that it accords with the overall thrust of Development Plan policies taken as a whole.
- 4.3 Accordingly, policy and plans play an important role in determining any planning application. At the local level, the statutory Development Plan currently comprises the following documents:
- Hertfordshire Minerals Local Plan Review 2002 – 2016 (adopted March 2007);
 - Waste Core Strategy and Development Management Policies Document (adopted November 2012);
 - Waste Site Allocations 2011 – 2026 (adopted July 2014); and
 - The district Local Plans.
- 4.4 Other material considerations relative to the planning application include national statements of planning policy, such as the National Planning Policy Framework (NPPF) and associated internet based Planning Practice Guidance.
- 4.5 This chapter will set out the context of the main national and local planning policies relevant to the development at Hatfield Aerodrome. Chapter 4 within the ES (Volume 2) also considers planning policy, setting out those that are relevant to the EIA that has been undertaken.

THE DEVELOPMENT PLAN

Legislative Background

- 4.6 The PCPA 2004 reformed the development plan system, replacing Local Plans with a requirement to produce a Local Development Framework (LDF). The LDF would comprise a portfolio of Development Plan Documents (DPDs). With the introduction of the Localism Act 2011, the Local Development Framework is to be replaced by Local Plans.

- 4.7 To maintain continuity in the Development Plan system during transition to the LDFs (and Local Plans), arrangements were put in place for the existing adopted Structure Plan and the Minerals, Waste and District Local Plan policies to be 'saved'. In this respect the Secretary of State's saving direction dating 22 March 2010 provides that all the policies in the Minerals Local Plan were saved until such time as they are superseded by the emerging Minerals Local Plan.
- 4.8 On 3rd January 2013, the Regional Spatial Strategy for the East of England (Revocation) Order 2013 came into force revoking both the Regional Spatial Strategy (RSS) for the East of England and the remaining saved policies Hertfordshire Structure Plan.
- 4.9 In addition to the Plans identified in paragraph 4.3 above, consideration is to be given to the Local Plans produced by both St Albans and Welwyn Hatfield District Councils:
- City and District of St Albans District Local Plan Review (adopted 1994);
 - Welwyn Hatfield District Plan (adopted 2005).
- 4.10 However, the district Local Plans cover all matters involving the development or other use of land, with the exceptions of minerals and waste developments which by virtue of the Town and Country Planning (Prescription of County Matters) (England) Regulations 2003 fall to be considered against the Minerals Local Plan and Waste Local Plan respectively. The main considerations therefore relate to the general policies, and those aimed at safeguarding the environment, and thus are addressed within the sub-section "*Protection of the Environment*".
- 4.11 In terms of land use planning constraints, the application site is not located within a National Park or Area of Outstanding Natural Beauty (AONB). Neither does it directly impinge upon any ecological or archaeological designations of international or national importance; however, it is located within a Green Belt. Allied to this, as noted from Chapter 2 there are no internationally or nationally designated sites of ecological or archaeological importance within 2km of the boundary of the application site. It is noted that the following designations are located within 2km of the proposed mineral workings:
- Five areas of ancient woodland;
 - One Local Nature Reserve
- 4.12 There are several listed buildings in the vicinity of the Site. The closest (being a cluster of three) are located at Popefield Farm on the southern boundary.
- 4.13 Based on information provided by Herts Environmental Records Centre (refer to Chapter 11, Volume 2) there are 23 Local Wildlife sites within 2km of the boundary of the application site. The closest is Home Covert, which lies adjacent to the application site; twelve of the sites are over 1km from the site

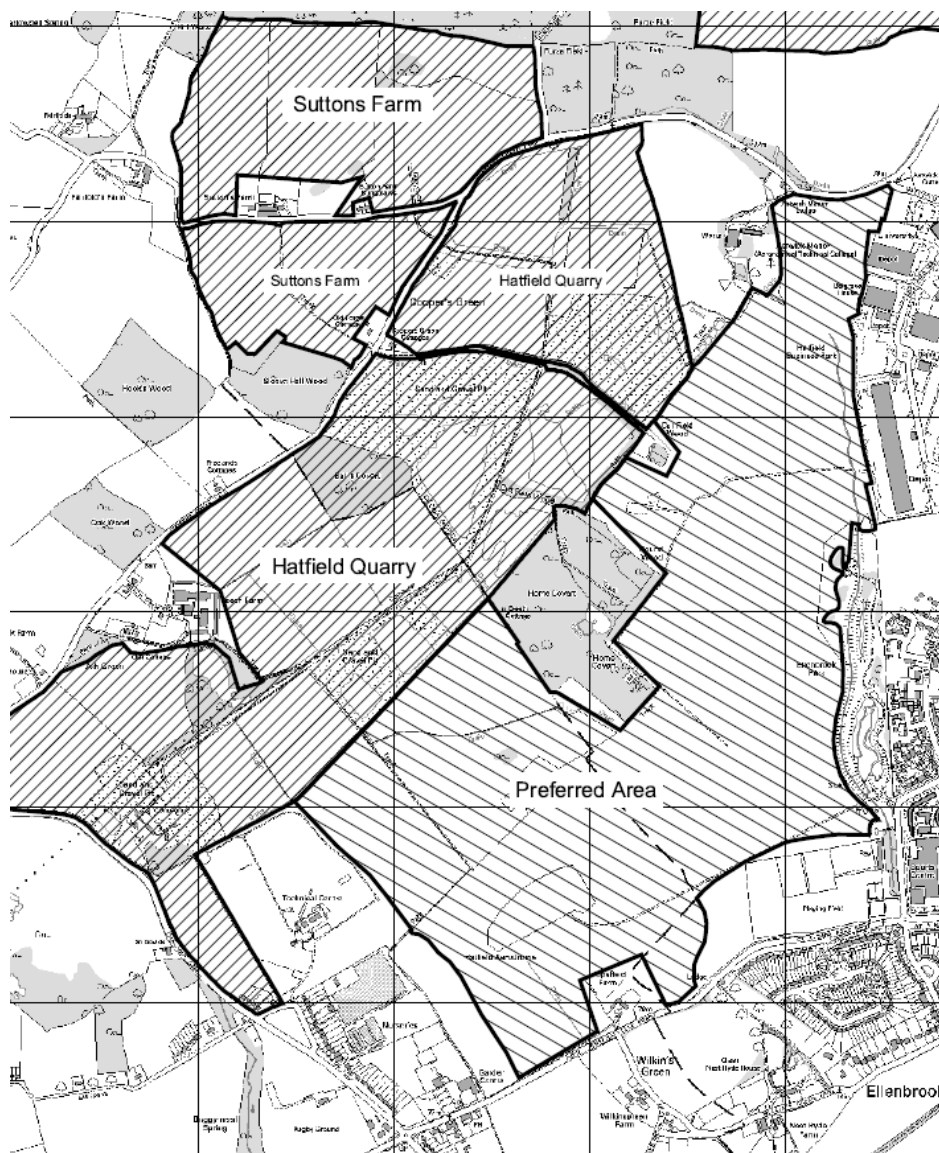
boundary with the remainder located between 510m and 900m from the site boundary.

- 4.14 As a result, many sections of planning policy and guidance are not relevant to the planning application.
- 4.15 The following paragraphs consider each of the documents that currently comprise the Development Plan highlighting the key policies that are applicable to the proposed development.

Minerals Local Plan Review

- 4.16 The prime purpose of the planning application is to secure the release of new mineral reserves to ensure that a steady supply of aggregates can be provided to the local construction market. In view of this, the Minerals Local Plan (MLP) is the main consideration when examining whether the proposals accord with the Development Plan.
- 4.17 The MLP was adopted in 2007 and covers the period between 2002 and 2016. As such, the plan period is still in force and thus significant weight can be afforded to its policies. Notwithstanding this, the MLP pre-dates the NPPF and thus where a policy conflicts with national policy, the NPPF will take precedence.
- 4.18 Referring to the Council's website, the MLP sets out the development planning framework for future minerals extraction and associated development whilst providing for environmental protection. This plays an important role in providing certainty and consistency for both industry and the general public.
- 4.19 Chapter 2 in the MLP sets out the aims of the Plan. Of note are:
- **Aim 1**: to encourage the efficient use of materials;
 - **Aim 2**: to identify and safeguard mineral resources to ensure that there are sufficient environmentally acceptable sources to maintain an appropriate level of current and future supply in accordance with Government guidance and to prevent the unnecessary sterilisation of mineral resources;
 - **Aim 3**: to ensure that the adverse impacts on the environment and people caused by mineral operations and the transport of minerals are kept, as far as possible, to an acceptable minimum; and
 - **Aim 4**: to ensure sensitive working, reclamation and aftercare practices so as to preserve or enhance the overall quality of the environment and promote biodiversity where appropriate.
- 4.20 As such the Plan seeks to balance an adequate and steady supply of aggregates against the environmental harm that may result through the extraction and processing of minerals. In the context of Aim 2, the Plan "*seeks to identify the most suitable resources for potential sand and gravel extraction*".

- ### Figure 4-1 Preferred Area 1



- 4.23 The three allocated sites in the MLP are (with the amount of reserves is shown in brackets):
- Preferred Area 1: Land at former British Aerospace, Hatfield (8Mt)
 - Preferred Area 2: Land adjoining Rickneys Quarry, near Hertford (5Mt – 6Mt)
 - Preferred Area 3: Land at Coursers Road, near London Colney (4.5Mt)
- 4.24 The southern part of Preferred Area 1 is the application site to which this planning application refers. Figure 4-1 above reproduces the extent of the allocation. Preferred Areas 2 and 3 are extensions to existing quarries. During the course of the MLP planning permissions have been granted for Preferred Area 2 (in part as an eastern extension releasing around 1.24Mt) and Preferred Area 3. Referring to paragraph 3.4.2 of the MLP, it is noted that *“the County Council has undertaken an extensive site selection process in order to identify the most suitable locations for future aggregates extraction”*. Allied to this, paragraph 3.4.6 comments that the ‘Preferred Areas’ are the parcels of land likely to be required to make up the balance of the County’s contribution to the regional apportionment for the plan period (to 2016) and the landbank period beyond.
- 4.25 **Policy 5** seeks to avoid the sterilisation of mineral reserves, encouraging prior extraction where possible. The Preferred Area 1 includes land to the north which is being considered for housing development. The applicant has considered the mineral quality within the northern part of the allocation and has concluded that it is not viable.
- 4.26 The cumulative impact of mineral workings, be it simultaneous or successive, is addressed through **Policy 11**. An operational sand and gravel quarry Hatfield Quarry (CEMEX) lies to the north of the application site, with land adjoining the application site having been worked. The cumulative impacts associated with developing the application site have been considered as part of the EIA process and no significant effects have been identified, either individually (for one facet of the environment) or collectively.
- 4.27 Section 4.4 of the MLP addresses the reclamation of mineral workings. Paragraph 4.4.2 recognises that traditional schemes of agricultural restoration may not always be appropriate and should not be seen as the only option. It cites biodiversity is a suitable option and advises that cognisance is given to both the UK and Hertfordshire Biodiversity Action Plans. **Policy 13** indicates that the council will not allow land worked for minerals to become derelict or remain out of beneficial use. Applications for mineral extraction are to be accompanied by a detailed and comprehensive restoration scheme. To this end, the restoration proposals are set out in Chapter 3 above and are considered to be in accordance with the spirit of Policy 13. The applicant has a proven track record of restoring its mineral operations, having won over 50 awards from industry affiliated bodies. Careful consideration has been given to the restoration scheme, ensuring that the water environment is adequately protected, that the scheme reflects local landscape character, and also adds biodiversity value whilst allowing public

access. This also reflects the provisions of **Policy 14** which requires restoration schemes to have a sustainable after-use. The policy sets out ten criteria that need to be considered, including *inter alia*:

- respect and/or enhance the local character of the area;
- benefit the local community;
- provide improved and increased public access to the countryside and recreation and create public open space;
- create new or enhance existing water bodies for wildlife;
- support and enhance national, regional and local biodiversity action plan objectives.

4.28 These aspects have been taken onto account in preparing the development scheme. In particular, the restoration scheme seeks to provide a range of habitats and informal recreation similar to that currently enjoyed.

4.29 Linked to the restoration of mineral workings, including the application site, is the use of inert materials to infill the void left once the mineral has been removed. Paragraph 4.5.1 indicates:

“... The level of restoration needs to be addressed on a site-specific basis as restoration to a lower level than the original may be more appropriate than restoration to pre-extraction/original levels. The landscape character assessment and the provisions of Policy 18 (ii) (form of restoration) will be considered when determining the appropriate levels for any restoration.”

4.30 The supporting text recognises that infilling mineral workings as part of a restoration scheme is not without its problems, potentially increasing the area of disturbance at any one time or duration of operations. It also refers to potential environmental issues; however, these are mainly in relation to infilling with non-hazardous wastes, as opposed to inert materials. **Policy 15** indicates that *“The reclamation of mineral workings with waste will only be permitted where it can be demonstrated that the disposal of waste is necessary to achieve the restoration proposals”*. The policy goes on to add that timescales to achieve the restoration should be appropriate and that there is *“a sufficient total quantity of fill likely to be available to ensure restoration at the required rate”*.

4.31 In preparing the restoration scheme, consideration was initially given to a scheme that used minimal volumes of imported material. However, given the depth of the workings, this would have resulted in a single, large, deep water body with limited variation at the margins to create marginal habitats. Overall it was considered that this would have minimal ecological, landscape or recreational value as a restoration scheme, potentially conflicting with Policies 13 and 14 considered above.

4.32 Finally **Policy 18** sets out fifteen criteria that are to be taken into account to control mineral workings, and in particular, the potential impacts on the environment or local communities. In many respects it provides an

overarching policy re-iterating the requirements of other policies in the MLP. Considerations include *inter alia*:

- provision of comprehensive scheme of working and restoration covering all stages of the development;
- restoration landform and long term management to provide that the final landform has the appearance of being created naturally and set harmoniously within its surroundings;
- measures to minimise visual intrusion;
- proximity to retained trees, hedgerows;
- stability of slopes, particularly adjacent to public highways;
- buffer zones in order to safeguard sensitive land-uses;
- noise intrusion;
- air quality;
- public rights of way; and
- cleanliness of public highways.

4.33 It is considered that these aspects have been taken into account in designing the working scheme and restoration proposals. Moreover, through the EIA process, as reported in the ES (See Volume 2) environmental considerations have been taken into account and that no significant environmental impact would occur.

4.34 The MLP also contains a number of policies aimed specifically at protecting various facets of the environment and amenity of local communities. This is further considered under the heading of '*Protection of the Environment*' below.

Waste Core Strategy and Development Management Policies

4.35 The Waste Core Strategy and Development Management Policies DPD (WCS) was adopted in November 2012 and covers the period between 2011 and 2026. The WCS sets out the county council's strategic vision, overall spatial strategy and development management policies for waste planning in Hertfordshire. In addition it contains the policies needed to implement these objectives and detailed development management policies that will be used to make decisions on waste planning applications and used in the determination of applications for other local developments that could have waste implications. In the context of the planning application, it is material to the proposals to import inert materials to facilitate the beneficial restoration of the workings.

4.36 The vision for the WCS is set out in Chapter 2 and indicates that waste management facilities "*will be well designed, appropriately sized and sensitively located so that they reduce the environmental and social impacts, meet the needs of communities and businesses, and seek enhancement of the locality*". As the purpose of importing the inert infill material is to facilitate the beneficial restoration of the mineral workings, then it is the latter part that is of relevance to the planning application. The vision goes on to add that facilities will be located as close as practicable to the origin of waste.

- 4.37 Chapter 4 of the WCS sets out the strategy for waste management. It is set against the policy framework of the NPPF and former Planning Policy Statement (PPS) 10: this latter policy document has been superseded by the National Planning Policy for Waste (published in October 2014). At the outset, the chapter refers to the waste hierarchy, whereby ‘disposal’ lies at the bottom tier and should be considered as a final option. However, for the type of material to be imported to the application site (inert soils, clays and other material from excavation works associated with new development projects) there are few options available, unlike non-hazardous wastes, where recyclable elements can be removed and the residual fraction used as a fuel.
- 4.38 Paragraph 4.12 re-states the proximity principle that is enshrined in national policy (see later in this chapter), requiring waste to be managed as close to its source as practicable. The paragraph recognises that some residual waste will come into the county from London, but this should be limited to residual waste requiring landfill. The paragraph indicates that “*The county could accept the residue for landfilling, if sufficient sites can be identified for arisings from within Hertfordshire in the first instance*”. Paragraph 4.14 adds that the county’s waste strategy needs to be balanced and flexible enough to allow sufficient sites to come forward to meet the county’s needs for a range of different types of waste management facility. Paragraph 4.23 comments on the spatial element of the WCS, taking into account:
- the need to match overall capacity with future demand including pressures arising from outside the county;
 - give priority to the reuse of previously developed land;
 - the council’s sustainable transport policy;
 - promoting waste management development close to the source of origin of the waste materials where possible, that provides ready access to the primary route network;
 - green belt considerations.
- 4.39 Paragraph 4.24 then adds that one of the key elements of the Plan’s spatial strategy is the need for new facilities to be located in those areas where there is pressure for growth. The application site is located on the edge of Hatfield and in close proximity to St Albans. Allied to this it has access onto the A1057, which in turn provides access to the A1(T) allowing efficient access to other urban areas where growth is planned.
- 4.40 The paragraphs of the WCS considered above are drawn together in **Policy 1**. This provides an overarching policy that seeks to make provision for dealing with waste management in the county by providing the capacity and facilities to meet the waste management needs of communities and businesses in Hertfordshire and an agreed apportionment from outside the county for pre-treated waste.
- 4.41 Policy 1A and associated paragraphs 4.27 to 4.31 provide for sustainable development, as required within the NPPF. It recognises the three elements to sustainable development (environmental, social and economic) commenting that “*development should contribute to building a strong,*

responsive and competitive economy". Paragraph 4.29 recognises that plans and developments need to take account of local circumstances so that they respond to the different opportunities for achieving sustainable development in different areas.

4.42 Of particular relevance to the planning application is **Policy 4** and the supporting text at paragraphs 4.44 to 4.57, which address landfill. It acknowledges (at paragraph 4.44) that landfill lies at the bottom of the waste hierarchy, but will still have a role to play through the Plan period, be it a diminishing role. In considering opportunities, paragraph 4.48 comments that there are more opportunities for inert waste to be disposed of in landfill within Hertfordshire (than non-hazardous wastes) given the reduced pollution potential. It goes on to refer to the preferred areas identified in the MLP (see above) commenting that they may be suitable for inert waste disposal as part of their restoration. In this context, the paragraph refers to the Sustainability Appraisal¹ undertaken for the WCS which concluded that the use of mineral voids for disposal of waste by landfill is a sustainable option because it limits the need to transport waste outside the county and also reduces the land-take that would be needed for new landfill sites.

4.43 In terms of a policy approach for landfill, paragraph 4.56 indicates that the policy will only allow landfill as a last resort and each proposal will be dealt with on a case by case basis, whilst paragraph 4.57 adds that mineral voids suitable for inert landfill will be safeguarded to help ensure Hertfordshire deals with its own waste as much as possible. This is reflected in **Policy 4** where it provides:

"Proposals ...for new landfill sites will only be granted planning permission as a last resort where it can be demonstrated that the residual waste has already undergone extensive treatment and there are no other suitable means of disposal".

4.44 The policy goes on to identify constraints relating to the water environment and then refers to providing details of pre-treatment, which principally relates to non-hazardous waste streams, given the fifth criteria which refers to energy recovery. Such aspects are not pertinent to the importation of inert fill materials for restoration of mineral workings. The policy also includes a requirement to consider the visual impact of a proposal and its impact upon landscape character. The final part of the policy indicates that for proposals for the disposal of waste and restoration with inert material, planning permission will only be granted where:

- the land is derelict or degraded;
- it would result in significant other environmental benefit;
- it can be demonstrated where applicable, that it is necessary to achieve restoration for mineral voids; and
- it can be demonstrated that it will not give rise to unacceptable implications to human health, amenity, landscape and the environment.

¹ Sustainability Appraisal Report, September 2010, produced by Land Use Consultants

4.45 Policy 4 concludes by stating:

“Reclamation proposals should ensure that the site is restored to a state that is of equal or greater environmental or agricultural value than the previous land use.”

4.46 As noted above, the proposals for importing inert infill materials are to ensure that a suitable restoration scheme can be delivered. This scheme has balanced environmental protection, particularly the water environment, with ecological and landscape considerations. By infilling the mineral workings a suitable landscape can be created that is consistent with its surroundings, benefits local ecology by increasing biodiversity, but also allows for public access.

4.47 **Policy 7** sets out the general criteria for assessing applications outside of identified locations. The supporting text recognises that sites may come forward that are not specifically allocated. In this context, the policy indicates that proposals will need to demonstrate how the proposal contributes to the overall spatial strategy for waste management within the county, with account given to:

- meeting a specific waste management capacity shortfall;
- scale and timeliness of providing facilities contributing to short-term capacity gap in waste management;
- proximity to and service provision for major urban areas and main population areas and other localised sources of waste;
- location within or adjacent to established or proposed Employment Land, Previously Developed Land, Industrial Land or compatible land use; and
- minimising transport distances to the existing network of waste management facilities and the strategic road network.

4.48 Again, as noted above the scheme is based on providing a beneficial restoration scheme. Moreover, it would seek to replace other sites within the county whose planning permissions will expire in the short term, notably Westmill and Hatfield quarries. The site is well placed, having access to the A1057 which in turn links with the strategic road network, linking major urban areas where development is either planned or expected.

4.49 **Policy 11** is an overarching policy that sets out the general criteria for assessing waste planning applications, having regard to a number of environmental aspects. It details ten considerations including:

- whether the siting, scale and design is appropriate for the location and character of the area;
- whether the development would adversely affect amenity;
- whether the development would adversely affect wildlife habitats, the natural, built or historic environments;
- adequate provision for restoration, aftercare;
- whether any adverse cumulative impact would arise.

- 4.50 Finally, **Policy 14** refers to 'buffer zones' indicating that proposals should incorporate an appropriately defined buffer zone in order to safeguard sensitive land-uses. It then sets out four criteria that can be used to define the buffer zone. Given the nature of the material to be imported, it is considered that any buffer zone needed for the infilling operations would be no greater than that established for the mineral extraction operations. In particular the imported material would not be odorous.

Waste Site Allocations Document

- 4.51 The Waste Site Allocations Document was adopted in July 2014. It allocates eight sites specifically for waste management uses and identifies a number of '*Employment Land Areas of Search*'. The application site is not one of the allocated sites. However, paragraph 3.13 recognises that there may be unforeseen circumstances that could affect the delivery of sites and **Policy WSA2** indicates that planning permission will be granted for waste management uses outside of the identified locations where they accord with Policy 7 of the WCS.

NATIONAL POLICY

General

- 4.52 National Planning Policy Guidance is set out in the National Planning Policy Framework (NPPF), replacing all of the Planning Policy Statements (PPS), Planning Policy Guidance Notes (PPG), Minerals Policy Statements (MPS) and Minerals Planning Guidance (MPG) notes. The NPPF was accompanied by a '*Technical Guidance*' document which provides 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.
- 4.53 As noted above, there are few significant environmental designations or sites located close to the application site and as such, large tracts of national policy are not relevant.

THE NPPF

- 4.54 The NPPF does not change the fundamental premise of Section 38(6) of the Planning and Compulsory Purchase Act 2004. It goes on to add that the NPPF is a material consideration in planning decisions.
- 4.55 The general principles of the NPPF are not inconsistent with the outgoing MPS and PPS/PPG documents and, as a result, the general thrust remains that the planning process should be plan-led. It also states that the development proposals should accord with the Development Plan and should be approved 'without delay'.

Sustainable Development

4.56 At the heart of the NPPF is a presumption in favour of sustainable development, which should be taken as a ‘golden thread’ running through both planning and decision-making. For decision-making, this means:

- approving development proposals that accord with the development plan without delay; and
- where the development plan is absent, silent or relevant policies are out-of-date, granting permission unless:
 - any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or
 - specific policies in this Framework indicate development should be restricted.

4.57 In terms of ‘*Sustainable Development*’, the NPPF identifies three dimensions: economic, social and environmental. These dimensions give rise to the need for the planning system to perform a number of roles:

- “An economic role”, which NPPF requires as contributing to building a strong responsive and competitive economy by ensuring that sufficient land of the right type is available in the right place and at the right time to support growth. The extension site is “*the right type*” in terms of the high quality mineral resource which it contains, and it is in “*the right place*” in the context of the site selection process undertaken by Heertfordshire County Council as part of the identification in the MLP of preferred areas for extraction. It is also in the “*right place*” in the context of being able to maintain local supplies of aggregate to construction projects in the county in a way which minimises the carbon footprint associated with the delivery of aggregate to construction sites. NPPF also refers to the “*location of permitted reserves relative to markets*” (para 145); the underlying requirement to move to a low carbon economy (para 7); the role which the planning system can play in guiding development to sustainable locations (para 8). In this context, the location of the application site to the primary road network, including the A1, is of note. This all points to a conclusion that the development is strategically and sustainably “in the right place”. Its release would also be at the “*right time*” to support growth via continuity of supply, given that reserves within the area are now limited (Hatfield Quarry is due to close in c. 2020).
- “A social role” including the “*need to provide the supply of housing required to meet the needs of present and future generations*”: (ref section 8.5.2 below). This will be dependent upon a “*steady and adequate supply*” of aggregate raw materials to the construction industry. The social role also relies upon “*creating a high quality built environment*” which will be assisted by the supply of sand and gravel as a building material; and

- “An environmental role” which contributes to “*protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy*”. The relevance of this dimension to the proposed development relates to the enhancement of the biodiversity of the restored site; the protection and enhancement of the built environment via the availability of sand and gravel aggregate; the minimisation of waste from the production process; and the supply of aggregate to local markets which reduces carbon emissions.

4.58 These roles should not be undertaken in isolation, because they are mutually dependent. To achieve sustainable development, economic, social and environmental gains should be sought jointly and simultaneously through the planning system.

Green Belt Policy

4.59 Relevant guidance in the NPPF regarding green belts can be found in Section 9, paragraphs 79 to 92.

4.60 Paragraph 81 states that “*Once Green Belts have been defined, local planning authorities should plan positively to enhance the beneficial use of the Green Belt, such as looking for opportunities to provide access; to provide opportunities for outdoor sport and recreation; to retain and enhance landscapes, visual amenity and biodiversity; or to improve damaged and derelict land*”.

4.61 Paragraph 87 refers to previous guidance, commenting that “*inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances*”. Paragraph 88 then adds

“When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. ‘Very special circumstances’ will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations”.

4.62 However, paragraph 90 defines other forms of development that are not inappropriate in green belt provided they preserve the openness of the green belt and do not conflict with the purposes of including land in green belt. Included in the list is mineral extraction. As such the proposals are consistent with Green Belt policy

Mineral Policy

4.63 Paragraph 13 of MPS1 stated that “*Minerals can only be worked where they naturally occur*”. This long established concept is retained in the NPPF at paragraph 142, which states:

“Minerals are essential to support sustainable economic growth and our quality of life. It is therefore important that there is a sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs. However, since minerals are a finite natural resource, and can only be worked where they are found, it is important to make the best use of them to secure their long term conservation.”

4.64 All mineral proposals also need to be considered in the light of paragraph 144 of the NPPF, and in particular, those aspects which are relevant to the EIA are:

- give great weight to the benefits of mineral extraction, including to the economy (i.e. socio-economic aspects)
- as far as is practical, provide for the maintenance of landbanks of non-energy minerals from outside National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage Sites, Scheduled Monuments and Conservation Areas;
- ensure that in granting planning permission for mineral development that there are no unacceptable adverse impacts on the natural and historic environment, human health or aviation safety, and to take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in the locality;
- ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations are controlled, mitigated or removed at source, and establish appropriate noise limits for extraction in proximity to noise sensitive properties;
- provide for restoration and aftercare at the earliest opportunity to be carried out to the highest environmental standards, through the application of appropriate conditions, where necessary. Bonds or other financial guarantees to underpin planning conditions should only be sought in exceptional circumstances; and
- not normally permit other development proposals in mineral safeguarding areas where they may constrain potential future uses for these purposes.

Environmental Considerations

4.65 The NPPF, together with the PPG, sets out the overarching national policy and associated guidance respectively aimed at protecting the environment and local communities. This is further considered under the heading of ‘*Protection of the Environment*’.

PROTECTION OF THE ENVIRONMENT

4.66 The NPPF, MLP, WCS and District local plans all contain specific policies on safeguarding and protecting the environment, covering all aspects such as the countryside; the natural environment; built and cultural heritage; agriculture; and landscape. They also set out policies aimed at minimising the loss of amenity through pollution. In this respect, **Policy 17** in the MLP provides an overarching framework for safeguarding critical capital and other important environment assets. These are defined in paragraph 4.8.2 of the

MLP and include European and nationally designated sites for nature conservation; Local Nature Reserves and wildlife sites; protected species (either by law or identified in the UK BAP); nationally important heritage assets and identified landscapes of high historic value. Allied to this, **Policy 18** (MLP) also addresses amenity aspects that may arise through noise or degradation of air quality or water environment. In the WCS, **Policy 11** is similarly an overarching policy covering landscape, ecology and the historic environment.

- 4.67 The following paragraphs provide a brief overview of those policies aimed at protecting the environment. To recap, the various documents that constitute the Development Plan are abbreviated as follows:

NPPF	National Planning Policy Framework
MLP	Hertfordshire Minerals Local Plan
WCS	Waste Core Strategy and Development Management Policies
WHDP	Welwyn Hatfield District Plan
SADP	St Albans District Local Plan Review

Landscape

- 4.68 At a national level, landscape policy is addressed in Section 11 of the NPPF. Within this, paragraphs 109, 110, 111, 114, 115 and 118 are of particular relevance with paragraph 109 emphasising the need for the planning system to contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes.
- 4.69 Great weight is given to conserving landscape and scenic beauty in nationally designated areas, such as Areas of Outstanding Natural Beauty: the application site is not affected by such designations.
- 4.70 Paragraph 110 notes that in preparing to meet development needs, the aim should be to minimise pollution and other adverse effects on the environment.
- 4.71 Paragraph 113 states that the LPAs should set criteria based policies against which proposals for any development on or affecting landscape areas will be judged. Distinctions should be made between the hierarchy of international and locally designated sites, so that the protection afforded is commensurate with their status.
- 4.72 At a county level, in addition to the policies addressing restoration (Policy 13) and after-use (Policy 14) the MLP at **Policy 12** indicates that mineral proposals will be required to take account of existing and, where appropriate, historic landscape character and maintain its distinctiveness. Planning applications may be refused where there is significant local landscape intrusion and loss of important landscapes or distinctive landscape features. It goes on to add that proposals will be expected to respect landscape character; ensure any distinctive features are protected; and be accompanied by landscape conservation, design and management measures that both strengthen the character and enhance the condition of the landscape. Allied

to this, **Policy 18** also requires a consideration of visual intrusion and impact on the local landscape.

- 4.73 As noted above, **Policy 11** in the WCS covers *inter alia* the siting, scale and design of waste management developments in the context of the surrounding landscape character and that the landscaping and screening of the site is designed to effectively mitigate the impact of the proposal.
- 4.74 The key landscape-related policy in the WHDP is **Policy R28** which recognises the importance of historic parks and gardens and the contribution these make to the landscape, and seeks to promote the preservation and maintenance of this resource.
- 4.75 The SADP policies relating to landscape include **Policy 74** which seeks to protect existing landscape features such as trees and hedgerows. This policy also requires new landscaping with the use of native trees and shrubs and the retention or creation of wildlife corridors. **Policy 104** seeks to protect and conserve landscape quality throughout the District
- 4.76 These policy issues have been taken into consideration within the Landscape and Visual Impact Assessment of this Volume which is reported in Chapter 8 of Volume 2. From that chapter it has been concluded that:

“Overall there are no significant landscape or visual effects predicted as a result of the proposed development, influenced in part by the proposed mitigation and landscape strategy. [...]

The physical changes to landscape elements and features is initially considered to be slight, associated with site preparation and establishment stages, rising to moderate and adverse during working phases and when the majority of disturbance would have occurred, but reducing as part of progressive restoration and eventually becoming slight and beneficial after final restoration is achieved. [...]

The visibility of the application site is influenced at a local level by the screening effects of vegetation in the surrounding area, in particular in conjunction with the flat, level plain which prevents any views down or over the site. The clearance of existing vegetation and landcover, the formation, working and subsequent backfilling of the mineral extraction void would have very limited visibility. [...]

Although there are several sensitive receptors in the study area (mainly residential and recreational), most would experience a small degree of change to the baseline condition; change is discernible but underlying landscape character or view composition would be similar to the baseline. The landscape strategy / mitigation proposals would be effective.”

Natural Environment

- 4.77 Section 11 in the NPPF considers the natural environment, particularly paragraphs 109, 113 and 117 to 119.
- 4.78 Paragraph 109 emphasises the need for the planning system to contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
- 4.79 When considering planning applications, paragraph 118 advises that LPAs should aim to conserve and enhance biodiversity by applying the following principles:
- *If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated or, as a last resort, compensated for, then planning permission should be refused;*
 - *Proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that makes it of Special Scientific Interest;*
 - *Development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;*
 - *Opportunities to incorporate biodiversity in and around developments should be encouraged;*
 - *Planning permission should be refused for developments resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss."*
- 4.80 Paragraph 113 reaffirms the hierarchical approach to designations, indicating that the development plan policies should be criteria-based with the level of protection afforded to the environment being commensurate to the status of the designation.
- 4.81 As noted above **Policy 17** in the MLP seeks to protect a range of ecological designations, including sites of European, national and local importance, along with protected species. The policy recognises that the degree of protection will be commensurate with the status of the designation according to their international, national or local importance. Under the policy, planning permission will not be permitted where "*it would result in the permanent loss or damage or significant and irreversible change to those particular*

characteristics and features that define the special quality of critical capital or other environmental assets". It also adds that proposals for mitigation, where appropriate, should be included that will provide for the maintenance and enhancement of critical capital or other environmental assets, including where temporary loss would occur.

- 4.82 Allied to this, **Policy 9** provides that, where appropriate, proposals provide opportunities to contribute to the delivery of the national, regional, and local biodiversity action plan targets. Conversely, proposals that *"prejudice the delivery of these targets or would result in the loss of, or damage to habitats and/or species will not be supported."*
- 4.83 In the WCS **Policy 17** provides protection to sites of international and national importance, indicating that planning permission will be permitted where it can be demonstrated that they would not have an irreversible adverse impact on the designation. The policy indicates that such assets should be conserved and where possible opportunities sought to enhance them. In a similar vein, **Policy 18** indicates that planning permission will be granted where it can be demonstrated a development would not have an irreversible adverse impact on the character, appearance, ecological, geological and amenity value of Regional and Local Sites and Features of importance. The policy adds that such assets should be conserved and where possible opportunities sought to enhance them. Where there are unavoidable negative impacts, adequate mitigation measures should be proposed to address such impacts and/or compensation provided for their replacement. **Policy 19** seeks to protect and safeguard Hertfordshire's diversity of natural environmental assets. It firstly requires consideration to be given to provide opportunities to contribute to the delivery of the national, regional and local Biodiversity Action Plan targets. It also seeks to protect and enhance existing woodland, trees and hedges through improved management and new planting, including management, over the long-term. Finally, as noted above, **Policy 11** in the WCS also covers *inter alia* ecological aspects, with parts iv) and v) relating to wildlife habitats and the natural environment. In this context development proposals should not have an adverse impact upon such interests, either through the development or operational phases.
- 4.84 The WHDP contains a number of policies to protect the natural environment. **Policy R11** is an overarching policy that seeks to protect and enhance biodiversity, and requires new development to positively contribute to biodiversity. **Policy R13** gives protection to Sites of Special Scientific Interest (SSSI), and **Policy R14** gives protection to Local Nature Reserves. **Policy R15** covers all regionally important wildlife sites. **Policy R17** recognises the importance of trees, woodlands and hedgerows to biodiversity and to the landscape, and requires new development to protect and retain existing trees, woodland and hedgerows wherever possible and replant using locally native species.
- 4.85 The SADP contains one key saved policy relating to nature conservation. **Policy 106** affords protection to SSSI, Nature Reserves and other sites which have conservation value, and states that conditions will be imposed to protect the special features of the site from adverse effect.

- 4.86 The nature conservation value of the application site, together with consideration of any ecological designations in the vicinity of the application site is addressed at Chapter 11 of Volume 2. The chapter concludes:

“The net residual effect of the proposals in terms of the key ecological receptors is anticipated to be at worst neutral and at best a positive effect measurable at least at the District level of significance. The difference relates to a degree of residual and unavoidable uncertainty over the success of the restoration scheme and subsequent long-term management in securing similar or enhanced habitats to the baseline position and, in particular, the extent of visitor pressure and its management over the long-term.

The development would give rise to minor temporary negative effects on certain key faunal receptors (in particular great crested newts and badgers) during various stages of the working sequence, but none of these receptors are predicted to be subject to negative effects of high magnitude (e.g. significant in terms of wider local populations), subject to mitigation measures which, in respect of great crested newts and badgers, are required under statute in any event. There is no impediment to mitigation proposals being delivered that are in accordance with standard best practice, and in that context there is no cause to believe that the requisite licenses would not be forthcoming in due course. There is also a high certainty that all temporary negative effects on key faunal receptors related to habitat loss would be at least fully compensated in the long-term through the restoration scheme.

The proposals for restoration focus on replication of the higher-value elements of the site in its baseline condition, including in particular the large expanses of rough circumneutral grassland, but also seek to exploit opportunities to secure expanded representations of other semi-natural vegetation, in particular acid grassland and wetland habitats, providing replacement and expanded opportunities for species of conservation importance, including declining open-country birds, scarce plants and insects, great crested newts and others. Depending on the success of restoration delivery, and the future management of the site, the project has the potential to ultimately deliver significant positive effects at District level or above, and to qualify the restored site for non-statutory designation within a relatively short time frame.”

Historic Environment

- 4.87 Guidance contained in PPS5 is replaced by paragraphs 126 to 141 in Section 12 of the NPPF.
- 4.88 Paragraph 126 recognises that heritage assets are an irreplaceable resource and the need to conserve them in a manner appropriate to their significance. Paragraph 128 adds:

“In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance”.

- 4.89 In terms of assessing the potential impacts a development may have on cultural heritage assets, paragraphs 131 to 135 are relevant. In this respect:

“In determining planning applications, local planning authorities should take account of:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;*
- the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and*
- the desirability of new development making a positive contribution to local character and distinctiveness.*

When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset’s conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.*

Where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

- nature of the heritage asset prevents all reasonable uses of the site; and*
- no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and*
- conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible; and*
- the harm or loss is outweighed by the benefit of bringing the site back into use.*

Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.”

- 4.90 As noted above **Policy 17** in the MLP seeks to protect a range of historic and heritage designations. The policy recognises that the degree of protection will be commensurate with the status of the designation according to their international, national or local importance. Under the policy, planning permission will not be permitted where “*it would result in the permanent loss or damage or significant and irreversible change to those particular characteristics and features that define the special quality of critical capital or other environmental assets*”. It also adds that proposals for mitigation, where appropriate, should be included that will provide for the maintenance and enhancement of critical capital or other environmental assets, including where temporary loss would occur.
- 4.91 In the WCS **Policy 17** provides protection to sites of international and national importance, indicating that planning permission will be granted where it can be demonstrated that the proposal would not have an irreversible adverse impact on the designation. The policy indicates that such assets should be conserved and where possible opportunities sought to enhance them. In a similar vein, **Policy 18** indicates that planning permission will be granted where it can be demonstrated a development would not have an irreversible adverse impact on the character, appearance, ecological, geological and amenity value of Regional and Local Sites and Features of importance. The policy adds that such assets should be conserved and where possible opportunities sought to enhance them. Where there are unavoidable negative impacts, adequate mitigation measures should be proposed to address such impacts and/or compensation provided for their replacement. As noted above, **Policy 11** in the WCS also covers *inter alia* heritage aspects, with parts iv) and v) relating to the built and historic environment. In this context development proposals should not have an adverse impact upon such interests, either through the development or operational phases.
- 4.92 The WHDP policies on the historic environment are set out in the District-wide Policy section. **Policy R28** relates to the protection of historic parks and gardens and has already been acknowledged. **Policy R29** affords protection to sites and assets of archaeological potential and actual importance.
- 4.93 The SADP policies relating to the historic environment include **Policy 83**, giving protection to listed buildings, and three policies relating to archaeology. **Policy 109** affords protection to Scheduled Monuments as listed in the policy; and **Policy 110** gives similar protection to archaeological sites, also listed in the policy. **Policy 111** lists a number of archaeological sites where development would not normally be refused but the assets should be investigated prior to disturbance (a “recording condition”).
- 4.94 Consideration of any archaeological designations in the vicinity of the application site is addressed at Chapter 12 of Volume 2. The chapter concludes:

“There would be no adverse direct effects upon designated assets such as listed buildings or scheduled monuments. [...]

The effects upon archaeology would be negative. However, taking into account the proposed mitigation measures and lack of archaeological evidence to date, it is considered that the effect is not significant. [...]

Taking into account the proposed mitigation measures, it is considered that the effect upon Popefield Farm is not significant and upon other offsite designated heritage assets the effect is neutral. [...]

No additional mitigation is considered necessary in connection with the effects upon offsite designated heritage assets.”

Water Environment

- 4.95 Guidance formerly contained in PPS25 is now found within paragraphs 99 to 108 of the NPPF, together with paragraphs 2 to 19 of the Technical Guide.
- 4.96 Again, **Policy 17** in the MLP seeks to safeguard *inter alia* the water environment. In this respect parts iv) and v) of the policy are relevant. Part iv) indicates that proposals that adversely affect the water environment will not be permitted unless appropriate measures can be imposed to mitigate any harmful effects. Part v) restricts development that would increase the risk of flooding or have a material negative impact on the storage or flow capacity of the floodplain.
- 4.97 Within the WCS **Policy 16** provides protection to *inter alia* the water environment indicating that proposals should not have a negative impact on the water environment unless appropriate measures can be imposed to mitigate harmful effects.
- 4.98 The WHDP contains a number of policies to protect the water environment, particularly in terms of flood protection and protection of the water resource. **Policy R7** affords protection to surface water and ground water quality, and encourages the use of sustainable drainage systems. **Policies R9 and R10** cover the protection and conservation of water resources and water quality.
- 4.99 The SADP policies on the water environment are principally concerned with flood protection and surface water management. **Policy 84** seeks to reduce the risk of flooding and ensure proper catchment management. **Policy 84A** covers drainage infrastructure to avoid flooding.
- 4.100 These policies have been considered as part of the hydrological and hydrogeological assessments that are reported in Chapter 6 of this Volume. From that chapter it has been concluded that *“Overall, it is concluded that, with respect to groundwater and surface water, there would be no significant residual effects of the proposed development after inclusion of the identified mitigation measures.”*

Transport

4.101 At the national level paragraphs 29 to 41 in Section 4 of the NPPF are relevant. All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment². Plans and decisions should take account of whether:

- the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;
- safe and suitable access to the site can be achieved for all people; and
- improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

4.102 The NPPF identifies³ that plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. The design and location of new development should therefore:

- accommodate the efficient delivery of goods and supplies;
- give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
- create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;
- incorporate facilities for charging plug-in and other ultra-low emission vehicles; and
- consider the needs of people with disabilities by all modes of transport.

4.103 In the MLP, **Policy 16** is relevant. This policy provides that development will only be permitted where the traffic movements likely to be generated by the development would not have an unacceptable impact on highway safety, the effective operation of the road network, residential amenity or the local environment.

4.104 In the WCS, **Policy 9** considers “*sustainable transport*” indicating that waste management facilities should be well located in relation to the strategic road network. **Policy 13** (again in the WCS) reflects Policy 16 in the MLP, indicating that permission will be granted where it is demonstrated that HGV movements would not have a significant adverse impact on highway safety; effective operation of the highway network; amenity; human health; and the historic and natural environment. The policy also adds that:

“Applicants must demonstrate, by a detailed transport appraisal, that the safest and least environmentally damaging methods of transporting waste are both practically achievable and will be used to minimise road

² Paragraph 32, NPPF

³ Paragraph 35, NPPF

miles and where appropriate, utilise more sustainable modes of transport such as by rail and water”.

- 4.105 In the context of public rights of way, **Policy 18** in the MLP and **Policy 15** in the WCS are relevant. Both require that good quality, safe and convenient temporary alternative provision is made and long-term reinstatement or suitable replacement of rights of way is secured where it is not possible to safeguard and existing route.
- 4.106 The WHDP policies on transport are contained in the section on Movement (section 6). **Policy M2** requires developers of proposals which may generate significant traffic to carry out transport assessments to demonstrate measures that are proposed to minimise traffic movements and minimise the impact on the local transport network. **Policy M3** requires developments that exceed certain criteria to also have a Green Travel Plan in place. **Policy M14** sets out the expectations in terms of parking provision for new development.
- 4.107 Further WHDP policies relevant to this subject are contained in the section on policies specific to rural areas. **Policy RA25** gives protection to public rights of way and states that the council will work with others to improve the public rights of way network. This protection extends to bridleways (Policy RA26) and greenways (Policy RA27). **Policy RA28** seeks to limit development which would have an adverse effect on rural roads and nearby properties.
- 4.108 The SADP Review Policies 34 and 35 are key District Council policies on highways considerations and development control. Where a development is likely to give rise to significant levels of additional traffic or a new access onto the public highway, **Policy 34** sets out a range of considerations aimed at minimising the adverse impact of the development on the local highway network, including road safety, capacity and environmental impact. **Policy 35** requires highway improvements under certain circumstances to avoid adverse impacts. **Policy 39** sets out the criteria relating to off-road parking provision associated with new development.
- 4.109 Transport considerations have been assessed and presented in Chapter 7 of Volume 2. From that chapter it is noted *“In conclusion, it is considered that the proposed development traffic would operate adequately have no adverse impact on the surrounding road network.”*

Pollution and Amenity of Local Communities

- 4.110 Pollution issues are set out in paragraphs 109 and 120 to 125 of the NPPF. Paragraph 109 refers to preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability.
- 4.111 Paragraph 122 notes that LPAs should focus on whether the development itself is an acceptable use of land and the impact of the use, rather than the

control of processes or emissions themselves where these are subject to approval under pollution regimes which assume they will operate effectively.

4.112 Finally, paragraph 123 states:

“Planning policies and decisions should aim to:

- *Avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development;*
- *Mitigate and reduce to a minimum other adverse impacts on health and quality of life arising from noise from new development, including through the use of conditions;*
- *Recognise that development will often create some noise and existing businesses wanting to develop in continuance of their business should not have unreasonable restrictions put on them because of changes in nearby land uses since they were established; and*
- *Identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.”*

4.113 Guidance can also be found in the Planning Practice Guidance. Firstly, the guidance addresses the ability to comply with the noise criteria is set out in the Planning Practice Guidance (paragraphs 019 to 022⁴). Secondly, the ability to adequately control and mitigate dust emissions is set out in the Planning Practice Guidance at paragraphs 023 – 032⁵.

4.114 In the MLP, the only relevant policy is Policy 18 which requires consideration to be given to noise and air quality.

4.115 In the WCS, air quality is addressed in Policy 16, where a development should not significantly degrade the quality of air (particularly from dust and emissions).

4.116 In the WHDP, policies are included to protect the amenity of local communities. **Policy R18** covers air quality, **Policy R19** covers noise emissions and **Policy R20** covers light pollution. All three policies seek to control unacceptable levels of emissions and require the developers to put forward measures to minimise levels of air emissions, noise and light pollution.

4.117 In the SADP, the only ‘saved’ policy relating to the protection of local amenity is **Policy 80**, which seeks to minimise the adverse effects of floodlighting on neighbouring properties.

4.118 The need to minimise impacts upon the environment and local amenity have been a key consideration of the design process. These issues have been addressed within separate Chapters of the ES, namely Chapters 9 and 10. Neither of these chapters indicates that the proposed development would give rise to a significant adverse effect.

⁴ Reference ID: 27-019-20140306 to 27-022-20140306

⁵ Reference ID: 27-023-20140306 to 27-032-20140306

CONTENTS

Introduction	5-1
Need for Mineral Reserves	5-1
National Guidance	5-1
Hertfordshire Minerals Local Plan	5-4
Hertfordshire Local Aggregate Assessment 2014	5-5
East of England Aggregates Working Party	5-9
Annual Monitoring Reports	5-10
Analysis	5-10
Need for Inert Fill	5-11

INTRODUCTION

- 5.1 As noted from the previous chapter, Section 38(6) of the Planning and Compulsory Purchase Act 2004 confers a presumption in favour of development proposals which accord with the Development Plan, unless material considerations indicate otherwise. The previous chapter has set out the relevant provisions of both national planning policy and the Development Plan, identifying how the proposals accord with the relevant policies.
- 5.2 Planning policy therefore plays an important role in determining any planning application. However, there are times when other ‘material’ considerations can over-ride the provisions of a particular policy, or when taken collectively, weigh in favour of a development, despite it being contrary to the Development Plan. Even when a proposed development is in accordance with the Development Plan, other material considerations can lend further support, such that the case in favour of allowing it becomes overwhelming. This process of weighing the relative benefits of an application is often referred to as the “*planning balance*”.
- 5.3 As noted from the previous chapter, the prime purpose of the planning application is to release around 8Mt of sand and gravel reserves through the establishment of a new quarry. The need for new mineral reserves is a material consideration which is to be balanced against the assessment of the acceptability (in terms of environmental harm) of the proposed development. However, planning for mineral provision must be seen in the context of the wider economy and the government’s growth agenda. The proposals also seek permission to import inert materials to facilitate the beneficial restoration of the mineral workings. This is a secondary aspect of the planning application.
- 5.4 This chapter examines the need for the new mineral reserves that would be released in granting planning permission for the new quarry at Hatfield Aerodrome in terms of current supply of aggregates and permitted levels of consented reserves.

NEED FOR MINERAL RESERVES

National Guidance

General

- 5.5 The supply of aggregates is governed by the Managed Aggregate Supply System (MASS). This seeks to ensure a steady and adequate supply of aggregates, to handle the significant geographical imbalances in the occurrence of suitable natural aggregate resources, and the areas where they are most needed. It requires mineral planning authorities which have adequate resources of aggregates to make an appropriate contribution to national as well as local supply, while making due allowance for the need to control any environmental damage to an acceptable level. It also ensures

that areas with smaller amounts of aggregate make some contribution towards meeting local and national need where that can be done sustainably.

- 5.6 The MASS works through national, sub-national and local partners working together to deliver a steady and adequate supply of aggregates.
- 5.7 A key tool which underpins the working of the MASS is the aggregate landbank, which is principally a monitoring tool. However, planning for mineral provision must be seen in the context of the wider economy and the government's growth agenda, as opposed to over analysing historic trends of aggregate sales.

NPPF

- 5.8 National Minerals Policy is set out in NPPF in paragraphs 142 -149, which supersedes and cancels policy advice previously contained in MPS1 (November 2006).
- 5.9 However, the central themes of MPS1 are restated in the NPPF, notably the recognition that *"minerals are essential to support sustainable economic growth and our quality of life. It is therefore important that there is a sufficient supply of material to provide the infrastructure, building, energy and goods that the country needs....."* (NPPF paragraph 142).
- 5.10 Most notably, the NPPF emphasises the need for Mineral Planning Authorities (MPAs) to plan for a *"steady and adequate supply of aggregates"* by *inter alia*:
- *"Using landbanks of aggregate minerals reserves principally as an indicator of the security of aggregates minerals supply;*
 - *Make provision for the maintenance of landbanks of at least 7 years for sand and gravel, whilst ensuring that the capacity of operations to supply a wide range of minerals is not compromised. Longer periods may be appropriate to take account of the need to supply a range of types of aggregates, locations of permitted reserves relative to markets and productive capacity of permitted sites;*
 - *Ensuring that large landbanks bound up in very few sites do not stifle competition; and*
 - *Calculating and maintaining separate landbanks for any aggregate material of a specific type or quality which have a distinct and separate market"* (paragraph 145).
- 5.11 The above extracts from NPPF broadly reiterate previous advice set out in paragraphs 4.1 and 4.5 of the now cancelled MPS1.
- 5.12 In relation to landbanks, the Planning Practice Guidance¹ to the NPPF advises that:

¹ Reference ID: 27-084-20140306.

“There is no maximum landbank level and each application for minerals extraction must be considered on its own merits regardless of the length of the landbank. However, where a landbank is below the minimum level this may be seen as a strong indicator of urgent need

There are a number of reasons why an application for aggregate minerals development is brought forward in an area where there exists an adequate landbank. These could include:

- *significant future increases in demand that can be forecast with reasonable certainty;*
- *the location of the consented reserve is inappropriately located relative to the main market areas;*
- *the nature, type and qualities of the aggregate such as its suitability for a particular use within a distinct and separate market; and*
- *known constraints on the availability of consented reserves that might limit output over the plan period.”*

National and Regional Guidelines for Aggregates Provision in England

5.13 Since the 1980's landbank calculations have been based upon an agreed contribution which MPA administrative areas should make to regional aggregate supplies. Until 2012 the figures for such calculations were derived from national and regional guidelines for aggregate production issued by Central Government, which were then 'apportioned' to individual MPA areas based upon their historical percentage contribution to regional supplies. The most recent exercise stems from the National and Regional Guidelines for Aggregate Provision in England 2005-2020, published by DCLG in June 2009. This indicated that the land won production of sand and gravel in the East Midlands region in the period 2005-2020 should be some 174 million tonnes.

5.14 Following the introduction of the NPPF in March 2012, the Government confirmed a desire to decentralise more power to MPA's to determine the appropriate level of aggregate extraction. This principle was set out in 'Guidance on the Managed Aggregate Supply System' published by DCLG in October 2012. This confirmed that each MPA should prepare a 'Local Aggregate Assessment' (LAA) of the demand for and supply of aggregates, with the LAA to include:

- a forecast of the demand for aggregates based on the average of 10 year sales data and other relevant local information;
- an analysis of all aggregate supply options as indicated by landbanks, mineral plan allocations and capacity data; and
- an assessment of the balance between demand and supply, and the economic and environmental opportunities and constraints that might influence the situation. It should conclude if there is a shortage or a surplus of supply and, if the former, how this is being addressed. (reference Guidance on MASS, paragraph 6).

- 5.15 The provision of the 2012 MASS Guidance Note are now included within the Planning Practice Guidance.

Hertfordshire Minerals Local Plan

- 5.16 As noted from the previous chapter, Policies 1 to 3 in Chapter 3 of the MLP consider the supply of sand and gravel within the county. At paragraph 3.2.1 the MLP indicates that “... the County Council is committed to permitting extraction of primary aggregates so as to make an appropriate contribution to the Regional needs for the plan period”. This is translated into **Policy 1**, which in the first instance provides that:

“Planning permission for the extraction of proven economic mineral reserves will only be granted where it is necessary to ensure that adequate supplies are available to meet the county’s agreed apportionment of regional supply”

- 5.17 The policy goes on to provide a commitment to maintain “an appropriate landbank of sand and gravel reserves in accordance with government guidance, throughout the Plan period”. In the supporting text, an annual apportionment of 1.99Mt is used to calculate the requirements over the plan period.

- 5.18 **Policy 2** sets out the requirements that will be taken into account when considering planning applications for new reserves. In this respect:

- i. *the existing quantity of permitted reserves of the mineral;*
- ii. *the rate at which, and the proposed timescale over which it is expected that those permitted reserves will be worked;*
- iii. *the proposed rate and timescale in the application for working the mineral deposit;*
- iv. *the existence of resources of the mineral which are identified as Preferred Areas within the Plan and which are shown as being desirably worked at an early stage of the Plan period; and*
- v. *the particular nature and qualities of the mineral deposit concerned, such as the suitability for a particular end use not met by other available sources in the area or region.*

- 5.19 Finally, the MLP seeks to identify areas from where sand and gravel should be extracted to maintain supplies throughout the plan period and beyond. Section 3.4 of the MLP, culminating in **Policy 3** identifies three sites (reserves are quoted in brackets):

- Preferred Area 1: Land at former British Aerospace, Hatfield (8Mt)
- Preferred Area 2: Land adjoining Rickneys Quarry, near Hertford (5Mt – 6Mt)
- Preferred Area 3: Land at Coursers Road, near London Colney (4.5Mt)

- 5.20 The southern part of Preferred Area 1 is the application site to which this planning application refers. Preferred Areas 2 and 3 are extensions to existing quarries operated by Hanson and Lafarge respectively. During the

course of the MLP planning permissions have been granted for Preferred Area 2 (in part as an eastern extension releasing around 1.24Mt) and Preferred Area 3 (around 7Mt released). Referring to paragraph 3.4.2 of the MLP, it is noted that *“the County Council has undertaken an extensive site selection process in order to identify the most suitable locations for future aggregates extraction”*.

- 5.21 As such it can be seen that in the extant MLP there is a commitment to release the reserves within the application site to fulfil the county's requirements to ensure that a steady supply of aggregates can be provided. The applicant has undertaken a number of investigations to determine both the quantity and quality of the mineral reserve, as well as ascertain the hydrogeological characteristics of the application site; this demonstrates that there is a proven viable reserve which can be worked. Moreover, as the Plan period is nearing its end, then there is little question over the premature release of the reserves within the current Plan period.

Hertfordshire Local Aggregate Assessment 2014

- 5.22 Paragraph 1.3 of the LAA indicates that its purpose is to assess the current local mineral provision against the requirements detailed in the NPPF and NPPG. The document details performance in line with the East of England Aggregates Working Party. It also reviews guidance from the government's Department for Communities and Local Government relating to the NPPF.
- 5.23 This LAA details the current supply and demand in Hertfordshire, from which information relating to existing sites, reserves and aggregate apportionment levels to 2031 (plan period for the new Minerals Local Plan), based on the agreed East of England apportionment figure and rolling average of ten years sales data and other relevant local information, is included within the document. Other potential sources of aggregates are included, namely secondary and recycled aggregates, imports and exports.

Annual Apportionment

- 5.24 The LAA indicates that the current annual apportionment for Hertfordshire is 1.39 Mt of sand and gravel, which is lower than the figure used in the MLP. The county's sand and gravel apportionment figure has changed over time due to periodic reviews. In 1998 the annual apportionment was set at 2.4 million tonnes. The annual apportionment in the current adopted Minerals Local Plan was set at 1.99 million tonnes for the time period 2002-2016². This figure was subsequently reviewed through the National and Regional guidelines in 2009 and now stands at 1.39 million tonnes for the period 2005-2020. This sub-regional apportionment was approved by the East of England Aggregate Working Party.
- 5.25 The LAA also refers to guidance contained in paragraph 145 of the NPPF whereby MPA's should prepare an annual LAA *‘based on a rolling average of 10 years sales data, and other relevant information, and an assessment of all*

² as detailed in former Minerals Planning Guidance Note 6: Guidelines for Aggregates Provision in England, 1994-2016, April 1994, and amended June 2003

supply options (including marine dredged, secondary and recycled sources)'. At paragraph 3.20 the LAA comments that "the NPPG suggests the use of the 3 year sales average to identify a general trend in sales and consider increasing supply if this is appropriate. The NPPG suggests that the rolling 10 year average, 3 year average sales and sub-regional guidelines should all be had regard to in order to establish a broad view of planned provision". On this basis, the LAA calculates that the apportionment based on ten years sales average would be 1.12Mt per annum and the three year sales average (2011 to 2013) would be 1.17Mt per annum. Both are lower than the agreed apportionment of 1.39Mt per annum. Allied to this the ten year average is lower than that derived from the last three years of sales, which implies that there is an increasing trend of supply (i.e. demand for aggregates is increasing). This is probably to be expected given the economic downturn that occurred from 2007 together with the Government's agenda for growth.

Sales of Sand and Gravel

- 5.26 From paragraph 2.9 and Table 2 there are four operational sites in Hertfordshire:
- Panshanger Quarry, Hertford;
 - Tyttenhanger Quarry, Colney Heath;
 - Westmill Quarry, Ware; and
 - Hatfield Quarry with the linked Symondshyde extraction site
- 5.27 However, there are only two mineral operators within the county: Panshanger and Tyttenhanger Quarries are operated by Lafarge with Westmill and Hatfield Quarries operated by CEMEX. As such this has the potential to lead to an oligopolistic market.
- 5.28 A further quarry (Rickneys Quarry) has a planning permission for extraction of reserves from an eastern extension to the quarry which has yet to be implemented; the quarry is currently mothballed and an application has been lodged to defer the implementation date. Two other sites have extant planning permission for sand and gravel extraction, although no extraction is now taking place; these are Water Hall and Dobbs Weir Quarries. The latter is reported as having no reserves remaining and the former is mothballed with sand and gravel reserves under the plant site.
- 5.29 In terms of the cessation of mineral extraction at the operational sites, Westmill and Hatfield are due to cease in December 2017 and October 2020 respectively. Panshanger and Tyttenhanger Quarries are due to cease extraction in December 2030 and December 2032 respectively.
- 5.30 Sales of sand and gravel since 2004 have ranged from a low of 965,238t (2005) and a high of 1,268,465t (2011). Figure 5-1 overleaf shows the sales over the period 2004 to 2013 based on data presented in Table 1 in the LAA and how they relate to the 3 year and 10 year average sales (see above). From this it can be seen that sales figures have been above the ten year average on six of the ten years in the range, being constantly above the average during the last five years. Taking the three year average, then four of

the ten years were above. As such, it would appear that neither the three nor ten year averages would provide a sound basis for planning future supply.

- 5.31 Referring to paragraph 3.6, based on 2013 sales levels Hertfordshire contributed 12% of the sand and gravel sales in the East of England region.
- 5.32 From Table 4 in the LAA it can be seen that Hertfordshire is a net exporter of sand and gravel. During 2009, some 163,000t of land won sand and gravel was imported into the county, whilst 317,000t was exported. Consumption within the county was 1.05Mt.

Figure 5-1
Sales of Sand and Gravel 2004 - 2013



Permitted Reserves

- 5.33 Table 1 in the LAA also shows the level of permitted reserves within the county from 2007. From this table permitted reserves were 10.8Mt in 2007 increasing by around 28,000t in 2008, decreasing by 250,000t in 2009 and increasing again in 2010 by nearly 167,500t. In 2011 there was a significant increase of permitted reserves by nearly 6mt. In 2012 and 2013 level of permitted reserves fell by 900,000t and increased by 468,000t respectively. The significant uplift in permitted reserves in 2011 followed the grant of planning permission for an extension to Tyttenhanger Quarry. Referring to the Committee Report, the proposal was for the extraction of 7.1Mt of sand and gravel from an area of around 84Ha over a period of 25 years.

Table 5-1
Permitted Reserves

Year	Permitted Reserves (t)	Change (t)	New Reserves Released ³
2007	10,840,668		
2008	10,869,000	28,332	
2009	10,619,000	-250,000	1.24Mt extension to Rickneys Quarry
2010	10,786,465	167,465	
2011	16,700,000	5,913,535	7.1Mt extension to Tyttenhanger Quarry
2012	15,792,000	-908,000	
2013	16,260,000	468,000	

- 5.34 Without the release of new reserves (through the grant of planning permission) the level of permitted reserves would be expected to decrease year on year. Taking into account the 8.34Mt of reserves that have been consented, the level of permitted reserves as decreased by 2.92Mt over a period of six years despite recorded sales of 7.9Mt. In other words, the level of permitted reserves would be expected to be closer to 11.3Mt.
- 5.35 It is also noted that planning permission was granted on 15 May 2014 for a further 500,000t at Thorley Hall Farm as part of a scheme to create an agricultural reservoir.
- 5.36 In 2013, the level of permitted reserves stood at 16.26Mt. From paragraph 3.11, the LAA indicates that this represents 11% of the permitted sand and gravel reserves in the East of England Region.

Landbank

- 5.37 As noted above, the level of permitted reserves stood at 16.26Mt in 2013. This is understood to be spread across the four operational quarries and two inactive sites. Based on the agreed apportionment of 1.39Mt per annum this equates to a landbank of 11.7 years. If the three year and ten year average sales figures are used, the landbank increases to 13.8 years and 14.6 years respectively.
- 5.38 It is not considered appropriate to use the three or ten year averages given the reduced economic activity resulting from the 'global financial crisis' which caused an economic recession in the UK which began in 2007. In this respect average sales of sand and gravel are likely to be skewed. It would not be prudent for there to be an under supply that could restrict future development and hinder future economic growth which is currently being planned for. To this end, paragraph 14 of the NPPF refers to maintaining sufficient flexibility to adapt to rapid change.

³ Source: Annual Monitoring Reports issued by Hertfordshire County Council

- 5.39 The LAA concludes that it would not be a viable approach to simply plan for mineral provision on the average of the last 10 years of sales. Similarly, it concludes that the use of the 3 year average sales data does not provide a clear direction for the 15 year MLP. Referring to paragraph 6.5 of the LAA, *“... the council considers it sensible to plan in line with the EEAWP agreement and continue to plan for the sub-regional apportionment level to provide for flexibility to maintain supply when the economy recovers. This will ensure that an adequate and steady supply of aggregate is achieved over the longer term”*.

Future Provision

- 5.40 The LAA considers the quantum of reserves needed to sustain production throughout a 15 year plan period, indicating that at the present time, there are insufficient consented reserves. Accordingly, the LAA indicates that the council will address this by allocating sufficient land in the review of the MLP.
- 5.41 Interestingly, the figures shown in Table 7 do not make provision for a landbank at the end of the plan period, contrary to national guidance. As such the potential shortfall is understated (by seven years, or 9.73Mt).

East of England Aggregates Working Party

- 5.42 The Aggregates Working Parties (AWPs) were established in the 1970s to collect and monitor data on aggregates provision as an aid to minerals planning. The East of England Aggregates Working Party (EEAWP) was established in 2001. It comprises the former East Anglia MPAs (Norfolk, Suffolk, Cambridgeshire and Peterborough), MPAs from the former South East (Essex, Southend-on-Sea, Thurrock, Hertfordshire, Central Bedfordshire, Bedford and Luton).
- 5.43 The latest report published by the EEAWP is the Annual Monitoring Report 2012. As such the data in the EEAWP report is not as up to date as the LAA, but does help to put the production of sand and gravel in Hertfordshire into the wider context within the region.
- 5.44 Figure 1 in the Annual Monitoring Report shows a steady decline in sales across the region from 2003 to 2012, with the most notable drop in sales occurring between 2007 and 2009; post 2009 the decline has been much less pronounced. In terms of the proportion of sales, Figure 2 shows that Hertfordshire accounted for 13% of the regional sales, being equal to Norfolk and Suffolk, but less than the other agglomerations of authorities: Essex, Thurrock and Southend accounted for 28% of sales within the region.
- 5.45 In terms of reserves, Figure 3 shows Hertfordshire having 11% of the regions permitted reserves. This is slightly greater than Norfolk and Suffolk, but less than the other agglomerations of authorities: Cambridgeshire and Peterborough have the greatest amount of permitted reserves, accounting for 31% of the regions total. Figure 4 then shows that there has been a steady decline in the level of permitted reserves across the region from 193.5Mt in 2003 to 148.4Mt in 2012. The overall regional landbank is stated as being

10.1 years. On an authority by authority basis, Hertfordshire has the third highest landbank of permitted reserves, with the Cambridgeshire/Peterborough and Bedfordshire/Luton agglomerations having higher landbanks (16.3Mt and 11.8Mt respectively).

Annual Monitoring Reports

- 5.46 Each year the council produces an Annual Monitoring Report (AMR) addressing minerals and waste management. The AMR is a means by which the county council shows the milestones that have been met within the Minerals and Waste Development Scheme. If these targets or milestones have not been met, it provides an opportunity to explain why, and to put measures in place to progress.
- 5.47 The requirement to produce a LAA means that some of information historically produced in the AMR now appears in the LAA.
- 5.48 The AMRs do not contain any further information that has not been considered above in relation to minerals; notwithstanding this, earlier AMRs do provide information on aggregate sales prior to 2004. Notably, between 2001 and 2003 annual sales were 1.67Mt, 1.54Mt and 1.26Mt respectively. These figures, especially 2001 and 2002, are significantly higher than the ten and three year averages referred to above (and also exceed the annual apportionment).
- 5.49 The AMRs also catalogue all permissions granted for minerals and associated developments, indicating the quantity of new reserves released.

Analysis

- 5.50 National policy indicates that a landbank of at least seven years reserves needs to be maintained for sand and gravel. This is a minimum amount and not a limit; as such it is acceptable to have a landbank in excess of seven years. Referring to the Planning Practice Guidance (see paragraph 5.12 above) *“There is no maximum landbank level and each application for minerals extraction must be considered on its own merits regardless of the length of the landbank. However, where a landbank is below the minimum level this may be seen as a strong indicator of urgent need”*.
- 5.51 The current landbank is stated as being 11.7 years at the end of 2013. In the intervening period some 0.5Mt has been approved through a windfall site (agricultural reservoir) and sales of aggregates have continued (around 2.34Mt based on the average of the last three years). This gives a net reduction of around 1.84Mt to the figures published. This would bring the landbank to just under 10Mt. As such, the landbank is estimated to stand at around three years over the minimum level.
- 5.52 Two of the four operational sites are expected to close within five years, leaving only one operator (unless Hanson re-opens Rickneys Quarry; however, Hanson has sought to apply to extend the date by which the planning permission is to be implemented). As such it is advantageous to

replace the operational units that will close to ensure healthy completion within the county.

- 5.53 Finally, consideration needs to be given to the lead in time for developing the application site. As a new quarry, it would take longer to bring new aggregates to market due to the need to establish the site infrastructure (access, processing plant etc). Allowing for the planning process to run its course and site establishment following the grant of planning permission, it could be c. 2018 before the first aggregates are sold (i.e. a further two years) by which time the landbank would be closer to seven years, and thus the urgency to released new reserves becomes greater.

NEED FOR INERT FILL

- 5.54 As noted in the introduction to this chapter, the need to import inert fill material arises tough the need to provide a beneficial restoration scheme. The material to be imported would be non-recyclable material that has a high clay content, being derived from site clearance works associated with new developments within the region.
- 5.55 As described in Chapter 2 above, there are two mineral horizons underlying the application site, separated by a layer of boulder clay. In view of this, there are also two aquifers. Discussions with the EA has indicated that the void left from the removal of the 'LMH' and interburden should be replaced with site-won, low permeability cohesive material but could also include suitable materials imported for the formation of both geological barrier and infilling. The rationale for placing inert low permeability geological barrier material up to the upper surface of the interburden is founded on a key issue for the Environment Agency, which is that perched groundwater within the UMH is kept separate from regional groundwater in the LMH.
- 5.56 In view of this, it is necessary to import inert materials to facilitate the restoration of the site and avoid leaving a deep water body with little variation in vertical or horizontal profile at the edge. Such a feature would have little, if any ecological benefit and would not be consistent with the local landscape character.
- 5.57 The infilling of mineral workings with inert materials is not unusual within the county. The 2014 AMR comments at paragraph 3.28 "*... three quarries accepting inert waste for restoration purposes in 2012 (Tyttenhanger, Hoddesdon and Great Westwood).*" Appendix 2 of the same document indicates that:
- restoration of Hoddesdon Quarry is due for completion in August 2016;
 - planning permission allows inert material to be deposited in Pole Hole Quarry (planning permission expired in November 2014);
 - planning permission allows inert material to be deposited in Waterhall Quarry (planning permission expired in November 2014);
 - planning permission for Great Westwood Quarry expired in April 2014

- 5.58 Referring to the Waste Core Strategy ('WCS', refer to Chapter 4 for details), paragraph 3.20 states:

"Construction and Demolition (C&D) waste arisings amounted to 1,382,000 tonnes in 2008. Some arisings will be disposed of to exempt sites or for construction purposes. It is therefore difficult to match total arisings and disposals. Information from the Environment Agency indicates that the annual disposal to inert landfill equated to 705,000 tonnes in 2010. There are currently a number of mineral extraction sites that are taking between 200,000 and 500,000tpa inert fill as part of their restoration, in addition to over 100,000tpa currently being recycled at existing sites across the county. It is therefore concluded that there is sufficient permitted capacity at the current rate of fill until 2020, and it is expected that this would be supplemented by additional capacity arising from other construction projects incorporating inert waste, particularly excavation waste arising on-site"

- 5.59 Under the heading of "Spatial Strategy and Strategic Policies" paragraph 4.12 indicates that capacity should be provided within the county for residual waste streams from London that require landfilling (as opposed to other forms of treatment). This is subject to sufficient sites being identified. Paragraph 4.48 then adds that there are more opportunities for inert waste to be disposed of in landfill within Hertfordshire given the reduced pollution potential. It refers to the three allocated sites in the MLP (see above) which *"once worked may be suitable for inert waste disposal as part of their restoration"*. Paragraph 4.48 concludes by stating *"The Sustainability Appraisal concludes that the use of mineral voids for disposal of waste by landfill is a sustainable option because it limits the need to transport waste outside the county and also reduces the land-take that would be needed for new landfill sites. However, to ensure restoration opportunities for environmental protection, recreation and local amenity, disposal of waste by landfill should only be allowed subject to satisfactory restoration and environmental protection."*
- 5.60 In view of this, the policy approach in the WCS is explained in paragraphs 4.56 and 4.57 in that *"The policy will only allow landfill as a last resort and each proposal will be dealt with on a case by case basis"* and *"Mineral voids suitable for inert landfill will be safeguarded to help ensure Hertfordshire deals with its own waste as much as possible"*.
- 5.61 There is therefore clear policy support for infilling using mineral voids to dispose of inert waste arisings, and each application will be considered on its merits. However, against this it is noted that "Target 8" in the WCS does seek to divert 90% of the construction and demolition waste from landfill by 2026.
- 5.62 In terms of arisings, the 2014 and 2013 AMRs provide data showing the how C&D wastes are managed within the county.

Table 5-2
C&D Waste Arisings and Management (t)

Year	Landfilled	Transferred	Treatment	Metal MRS	Total
2011	925,808	354,901	229,206	4338	1,514,253
2012	922,312	156,992	231,001	149	1,310,454

- 5.63 Between 2011 and 2012 there has been a 13.5% reduction in waste arisings; however, there has not been a corresponding reduction in the quantity of C&D wastes landfilled. In this respect there was a reduction of around 3,500t. The main change is in the amount transferred. With the completion of restoration of a number of quarries within the county (as noted in paragraph 5.57 above), new capacity will be required.

CONTENTS

Conclusions	1
-------------------	---



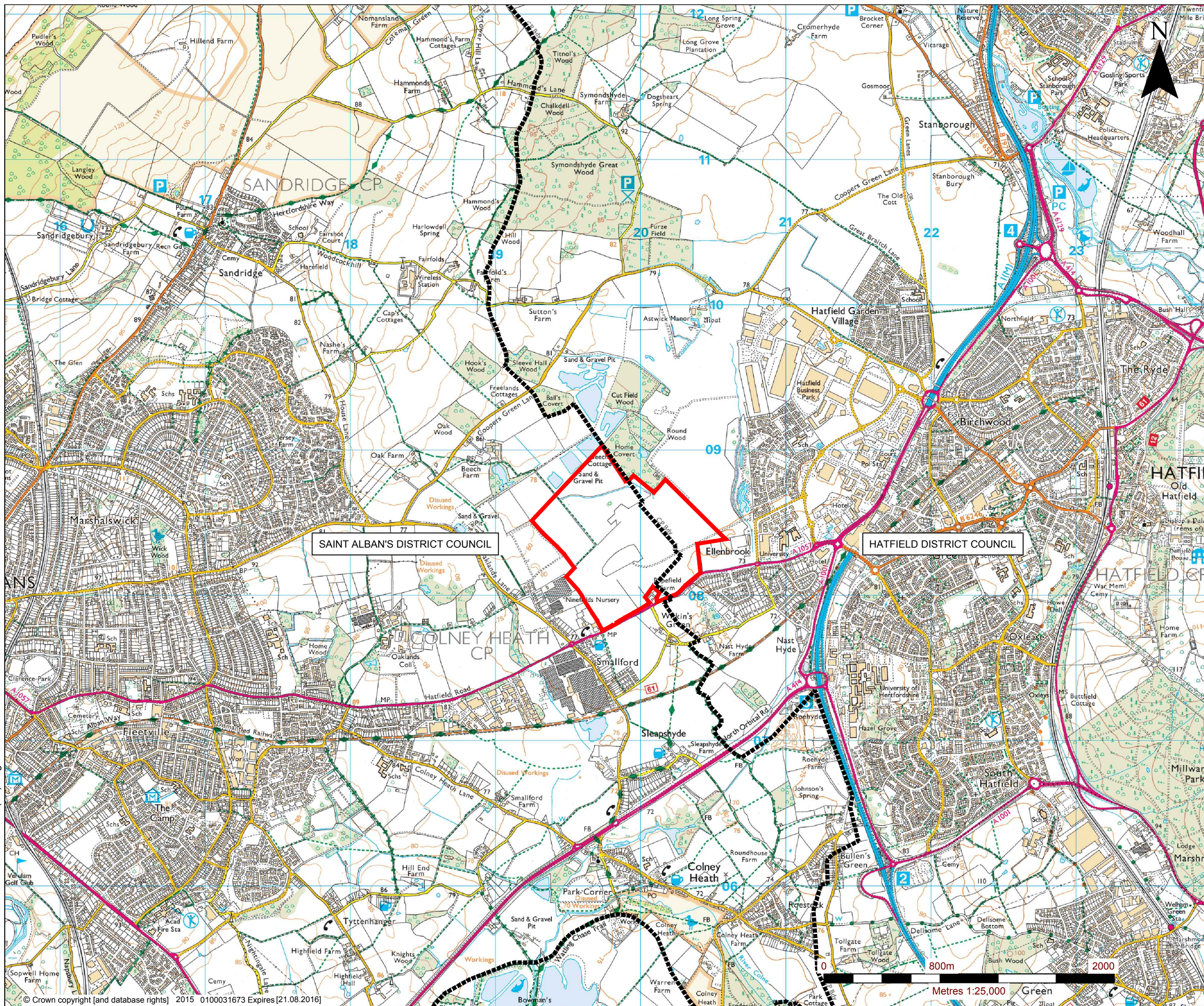
CONCLUSIONS

- 6.1 This Planning Statement sets out the details of a planning application for the extraction of sand and gravel from a site referred to as Hatfield Aerodrome. The application site includes land identified in the adopted (and current) Hertfordshire Minerals Local Plan as a 'preferred area' for sand and gravel extraction. It is noted in the Minerals Local Plan that the County Council has undertaken an extensive site selection process in order to identify the most suitable locations for future aggregates extraction.
- 6.2 The planning application is for the establishment of a new quarry on land at the former Hatfield Aerodrome, north of the A1057 Hatfield Road, on the north western edge of Hatfield. The proposals would involve the winning and working, together with processing for sale, of some 8Mt of sand and gravel over a period of around 30 years. In parallel with the extraction of minerals would be the importation of low permeability inert material to infill the mineral workings to facilitate the restoration of the site to a beneficial after use, combining recreation and nature conservation. The imported material would typically comprise excavation wastes from construction and engineering projects (soils, overburden, clays etc.) within the region.
- 6.3 Land to which the planning application relates covers an area of around 87.1ha and comprises the western part of the former aerodrome. It lies within an area bounded by the A1057 (Hatfield Road/St Albans Road) to the south, Oaklands Lane to the west, Coopers Green Lane to the north and the western fringe of Hatfield to the east.
- 6.4 This statement incorporates the formal planning application forms and the application plans (the latter being in Chapter 3). It also describes the individual elements of the working and restoration scheme, together with the related engineering and other operations which constitute the planning application development.
- 6.5 The statement includes an overview of the need to release additional reserves of sand and gravel in the context of national and local planning policy and guidance. It concludes that there is a case of need for the development in the context of the landbank of permitted reserves of sand and gravel in the county. The release of the reserves at the application site would be fully consistent with planning policy objectives relating to maintaining *"steady and adequate supplies"*.
- 6.6 The ES (Volume 2) has reached the underlying conclusion that the development could proceed without giving rise to adverse impacts on the comprehensive range of environmental issues which have been assessed. That conclusion is corroborated by the parallel exercise of reviewing the development against planning policy objectives and requirements for environmental protection.
- 6.7 NPPF confirms that, at its heart is a presumption in favour of sustainable development which, for decision takers, means approving development

proposals that accord with the development plan without delay. It is contended that the proposal is in accordance with the development plan, and should thus be entitled to a presumption in favour of planning permission being granted (ref Section 38 (6) of the Planning Act).

- 6.8 In those circumstances the applicant considers that there should be a firm presumption in favour of planning permission being granted for the proposed development.


01009.00132.06.HQ2-1.0 Site Location Plan(PS).dwg




LEGEND

APPLICATION SITE BOUNDARY

DISTRICT BOUNDARY



built on relationships



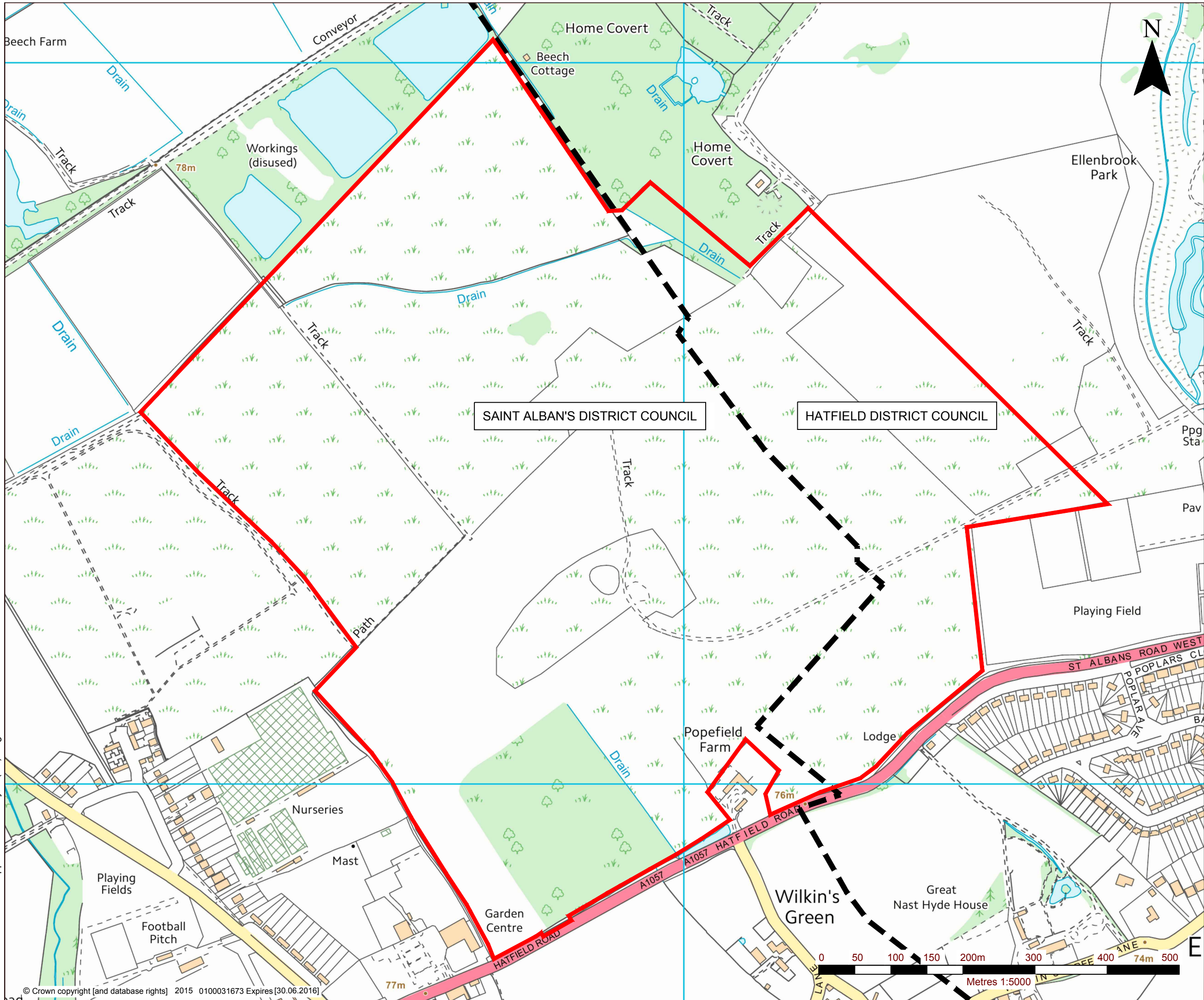
ASPECT HOUSE
ASPECT BUSINESS PARK
BENNERLEY ROAD
NOTTINGHAM, NG6 8WR
T: 01159 647280
F: 01159 751576
www.slrconsulting.com

HATFIELD AERODROME
PLANNING APPLICATION
SITE LOCATION PLAN

HQ 2/1

Scale
1:25 000 @ A3

Date
NOVEMBER 2015




LEGEND

APPLICATION SITE BOUNDARY

DISTRICT BOUNDARY



built on relationships



ASPECT HOUSE
ASPECT BUSINESS PARK
BENNERLEY ROAD
NOTTINGHAM. NG6 8WR
T: 01159 647280
F: 01159 751576
www.slrconsulting.com

HATFIELD AERODROME
PLANNING APPLICATION
APPLICATION SITE LAYOUT

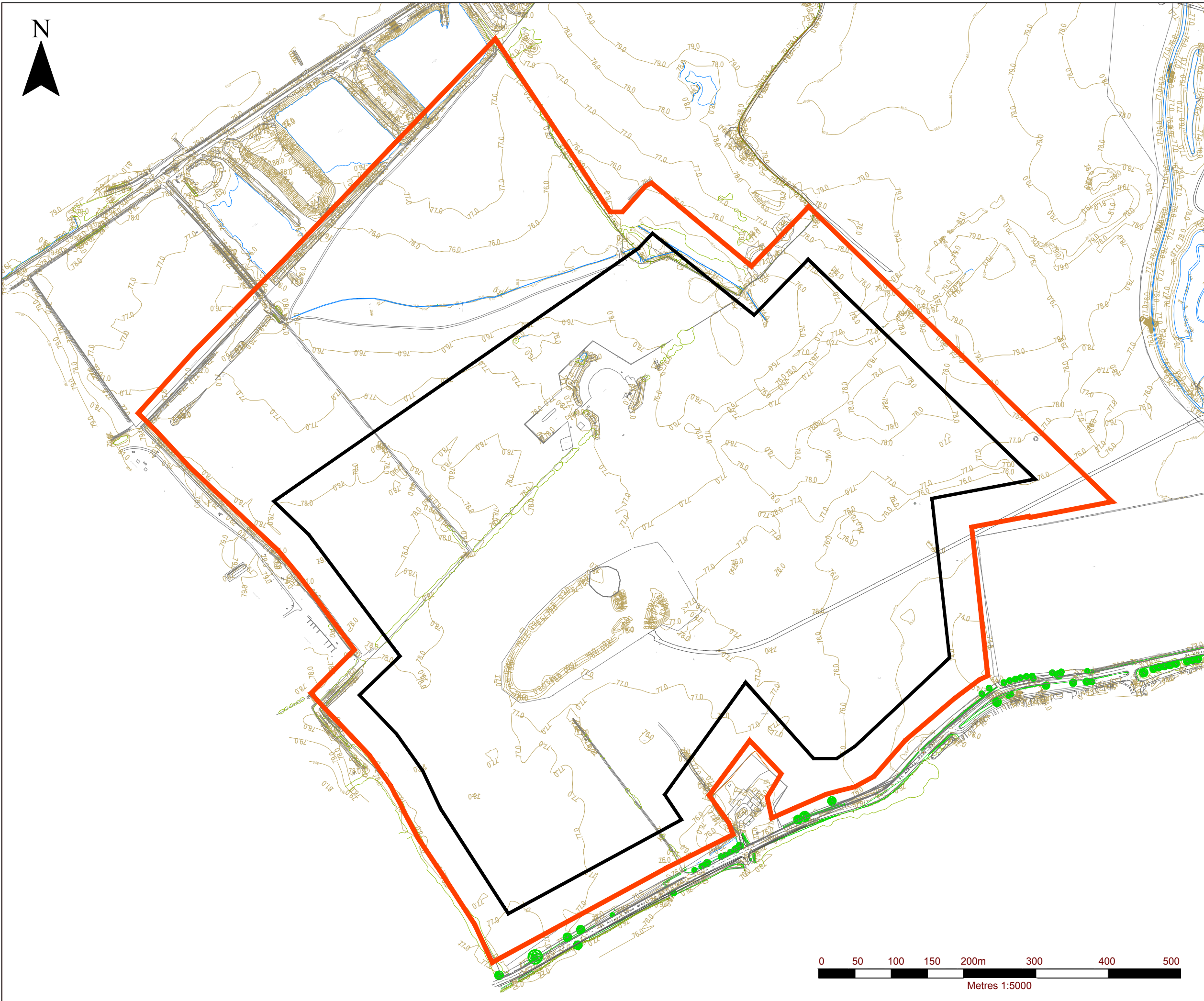
HQ 2/2

Scale 1:5 000 @ A3

Date NOVEMBER 2015

01009.00132.16.HQ2-2.0 Application Site Layout(PS).dwg

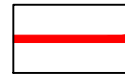
01009.00132.16.HQ2-3.0 Topographic Survey(PS).dwg



NOTES

1. DRAWING IS BASED ON BRETT
TOPOGRAPHICAL SURVEY RECIEVED
NOVEMBER 2014.

LEGEND



APPLICATION SITE
BOUNDARY



PHASE BOUNDARY



TOPOGRAPHIC CONTOURS
(mAOD)



ASPECT HOUSE
ASPECT BUSINESS PARK
BENNERLEY ROAD
NOTTINGHAM. NG6 8WR
T: 01159 647280
F: 01159 751576
www.slrconsulting.com

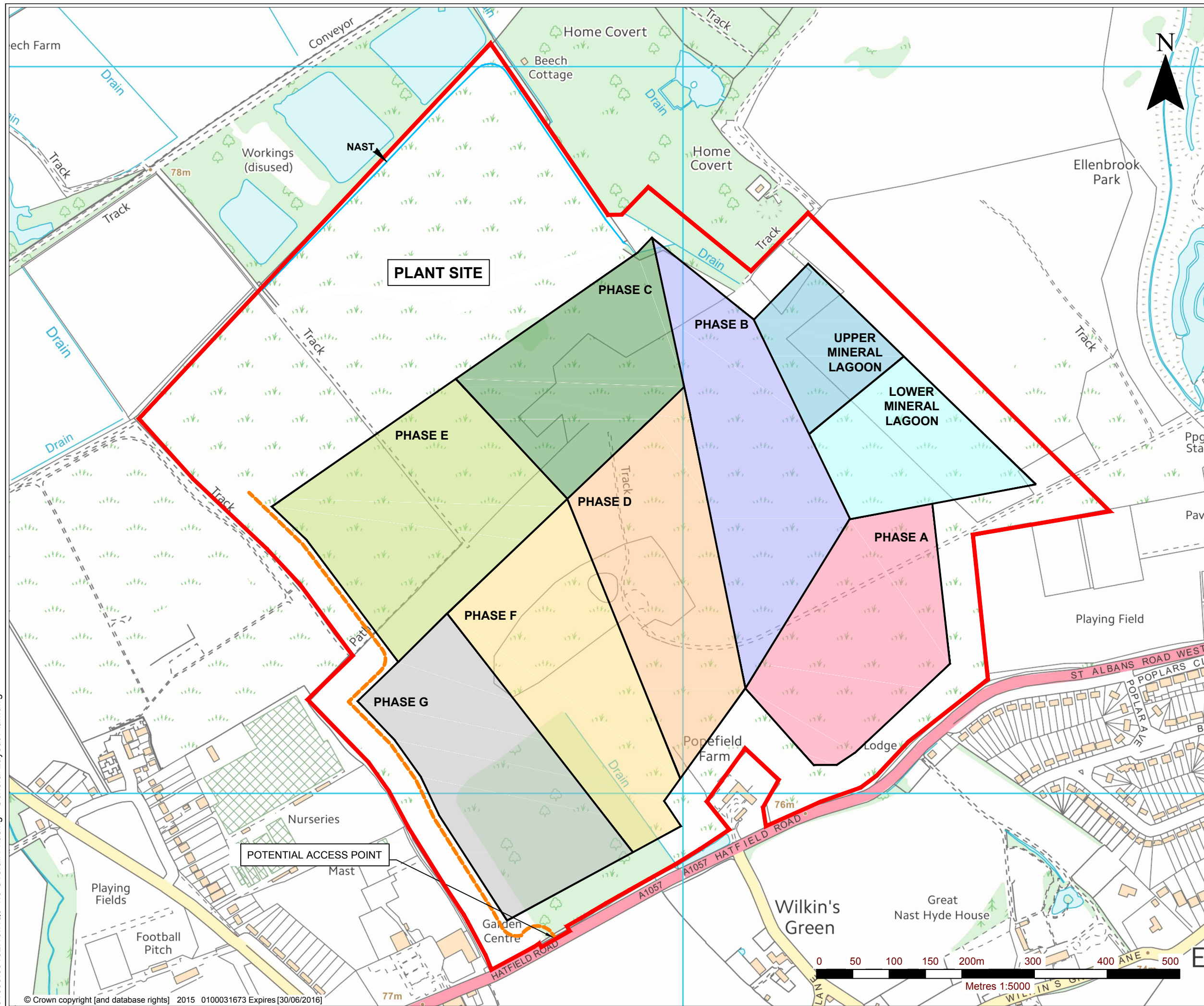
HATFIELD AERODROME
PLANNING APPLICATION
TOPOGRAPHIC SURVEY

HQ 2/3

Scale
1:5 000 @ A3

Date
NOVEMBER 2015

01009.00132.16.HQ3-1.0 Overall Phasing - General Layout Plan.dwg



LEGEND

	APPLICATION SITE BOUNDARY
	PHASE BOUNDARY
	ACCESS ROAD

PHASES

	PHASE A
	PHASE B
	PHASE C
	PHASE D
	PHASE E
	PHASE F
	PHASE G
	PHASE UPPER MINERAL LAGOON
	PHASE LOWER MINERAL LAGOON

built on relationships

global environmental solutions

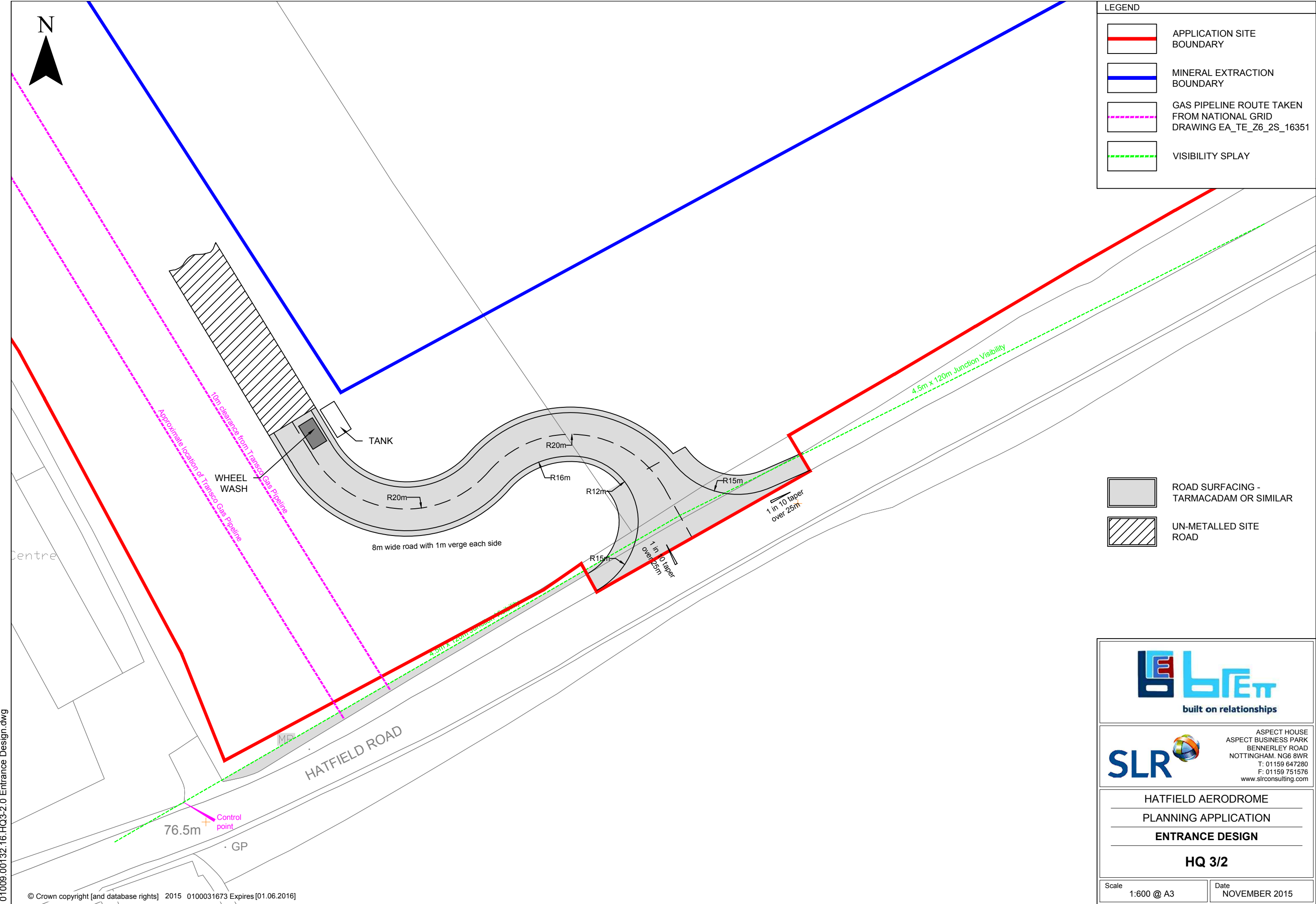
ASPECT HOUSE
ASPECT BUSINESS PARK
BENNERLEY ROAD
NOTTINGHAM, NG6 8WR
T: 01159 647280
F: 01159 751576
www.slrconsulting.com

HATFIELD AERODROME
PLANNING APPLICATION

**OVERALL PHASING /
GENERAL LAYOUT**

HQ 3/1

Scale 1:5000 @ A3	Date NOVEMBER 2015
----------------------	-----------------------



LEGEND

- APPLICATION SITE BOUNDARY
- MINERAL EXTRACTION BOUNDARY
- GAS PIPELINE ROUTE TAKEN FROM NATIONAL GRID
DRAWING EA_TE_Z6_2S_16351
- VISIBILITY SPY

- ROAD SURFACING - TARMACADAM OR SIMILAR
- UN-METALLED SITE ROAD



built on relationships



ASPECT HOUSE
ASPECT BUSINESS PARK
BENNERLEY ROAD
NOTTINGHAM. NG6 8WR
T: 01159 647280
F: 01159 751576
www.slrconsulting.com

HATFIELD AERODROME
PLANNING APPLICATION
ENTRANCE DESIGN
HQ 3/2

Scale 1:600 @ A3

Date NOVEMBER 2015

01009.00132.16.HQ3-3.0 Plant Site (Masterplan).dwg



LEGEND	
	APPLICATION SITE BOUNDARY
	PROPOSED CONTOURS (2m INTERVALS)
	GAS PIPELINE ROUTE TAKEN FROM NATIONAL GRID DRAWING EA_TE_Z6_2S_16351
	MINERAL EXTRACTION AREA
	POTENTIAL INDICATIVE LOCATION OF OPEN DRAINAGE CHANNELS
	PUBLIC RIGHT OF WAY (INC DIVERTED SECTION)
	RIVER NAST CULVERT AND SURFACE WATER MONITORING POINT
	PROPOSED PERIMETER STORAGE BUNDS
	PROPOSED PERIMETER SEALS
	LANDSCAPE AND ECOLOGICAL CORRIDOR
	ADVANCE HEDGEROW AND STANDARD TREE PLANTING
	STOCKPILES
	BUILDINGS
	LAGOONS



ASPECT HOUSE
ASPECT BUSINESS PARK
BENNERLEY ROAD
NOTTINGHAM. NG6 8WR
T: 01159 647280
F: 01159 751576
www.slrconsulting.com

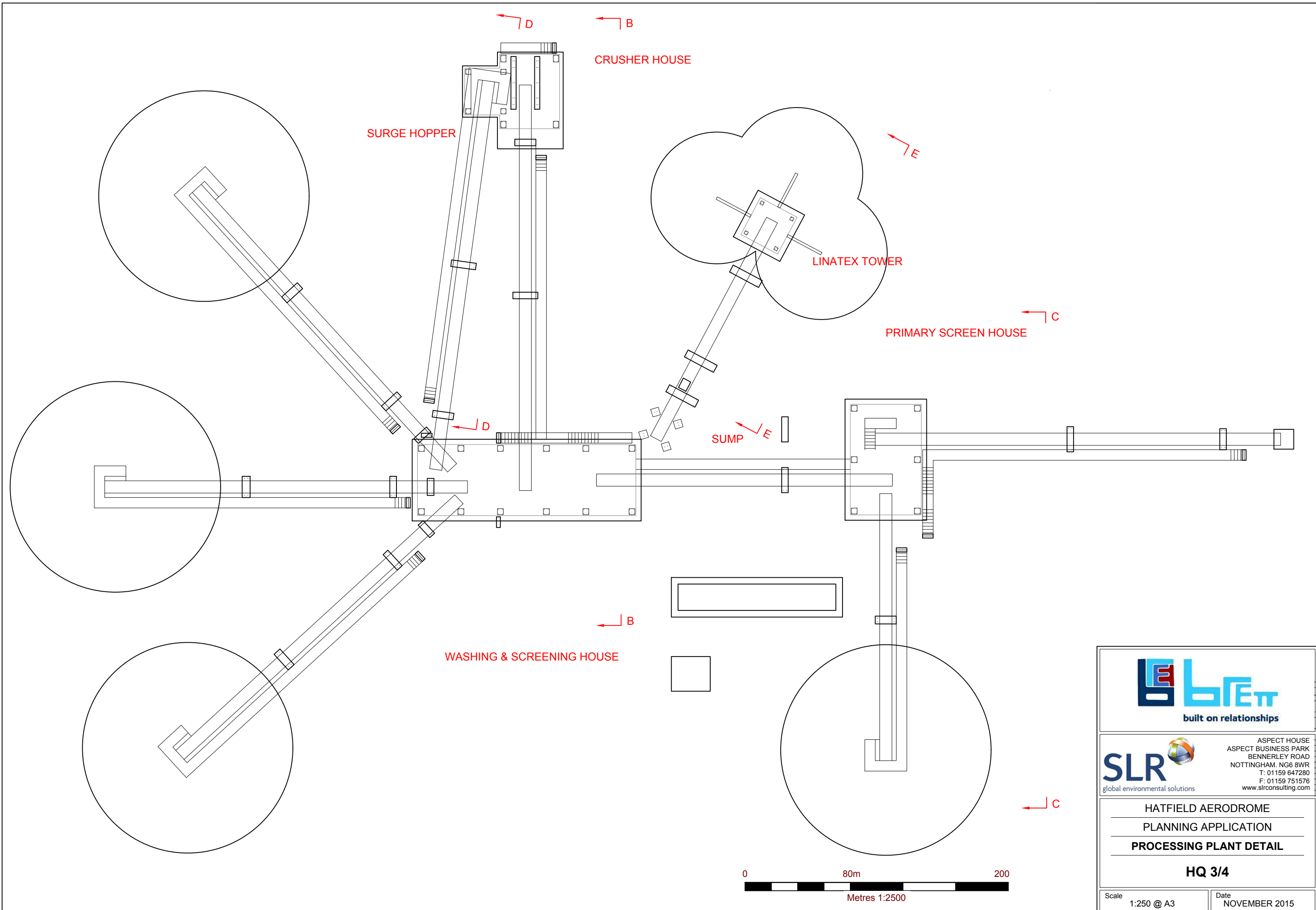
HATFIELD AERODROME
PLANNING APPLICATION
PLANT SITE (MASTERPLAN)

HQ 3/3

Scale
1:2500 @ A3

Date
NOVEMBER 2015

01009.00132.16.HQ3-4.0 Plant Site (Detailed).dwg



SLR 
global environmental solutions

ASPECT HOUSE
ASPECT BUSINESS PARK
BENNERLEY ROAD
NOTTINGHAM, NG6 8WR
T: 01159 647280
F: 01159 751576
www.slrconsulting.com

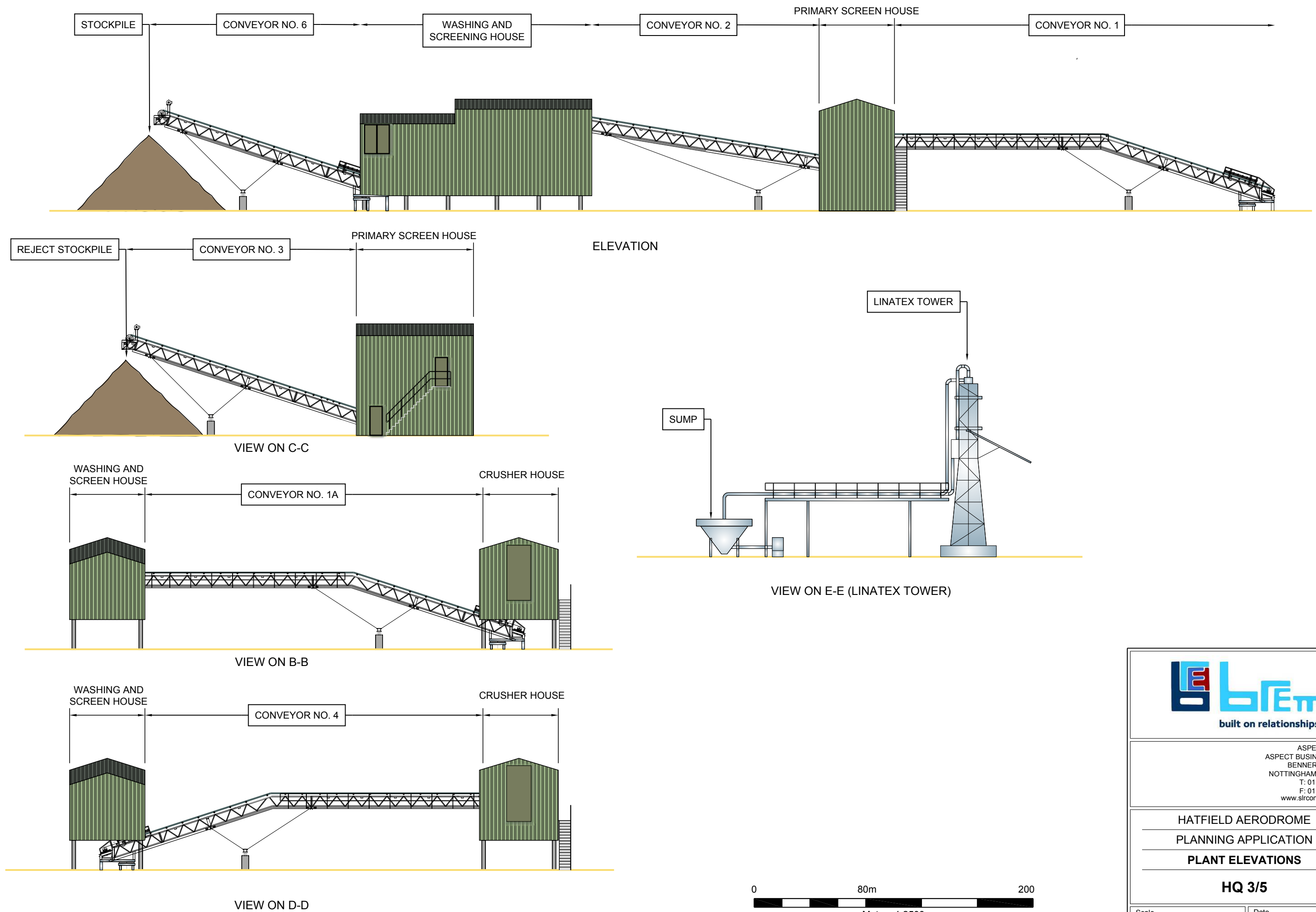
HATFIELD AERODROME
PLANNING APPLICATION
PROCESSING PLANT DETAIL

HQ 3/4

Scale
1:250 @ A3

Date
NOVEMBER 2015

01009.00132.16.HQ3-5.0 Plant Elevations.dwg



ASPECT HOUSE
ASPECT BUSINESS PARK
BENNERLEY ROAD
NOTTINGHAM. NG6 8WR
T: 01159 647280
F: 01159 751576
www.slrconsulting.com

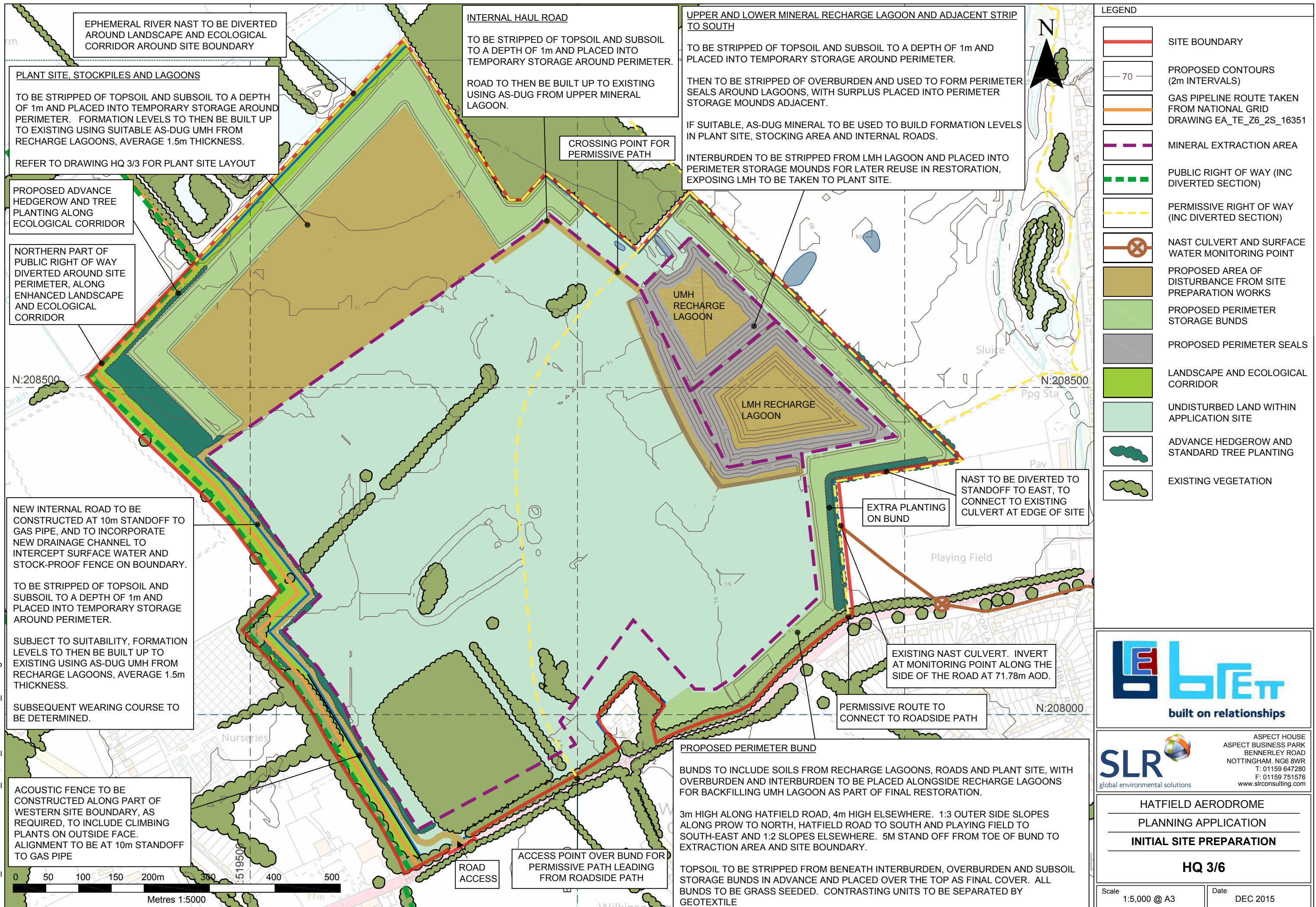
HATFIELD AERODROME
PLANNING APPLICATION
PLANT ELEVATIONS

HQ 3/5

Scale
1:250 @ A3

Date
NOVEMBER 2015

160107_01009.00132.29.000_HQ3-6_SITEPREP1_SM.dwg



160107_01009.00132.29.000_HQ3-7_PHASEA_SM.dwg



LEGEND	
	SITE BOUNDARY
	PROPOSED CONTOURS (2m INTERVALS)
	GAS PIPELINE ROUTE TAKEN FROM NATIONAL GRID DRAWING EA_TE_Z6_2S_16351
	MINERAL EXTRACTION AREA
	PUBLIC RIGHT OF WAY (INC DIVERTED SECTION)
	PERMISSIVE RIGHT OF WAY
	NAST CULVERT AND SURFACE WATER MONITORING POINT
	PROPOSED AREA OF DISTURBANCE FROM SITE
	PROPOSED PERIMETER STORAGE BUNDS
	PROPOSED PERIMETER SEALS
	LANDSCAPE AND ECOLOGICAL CORRIDOR
	UNDISTURBED LAND WITHIN APPLICATION SITE
	ADVANCE HEDGEROW AND STANDARD TREE PLANTING
	EXISTING VEGETATION

built on relationships

SLR
global environmental solutions

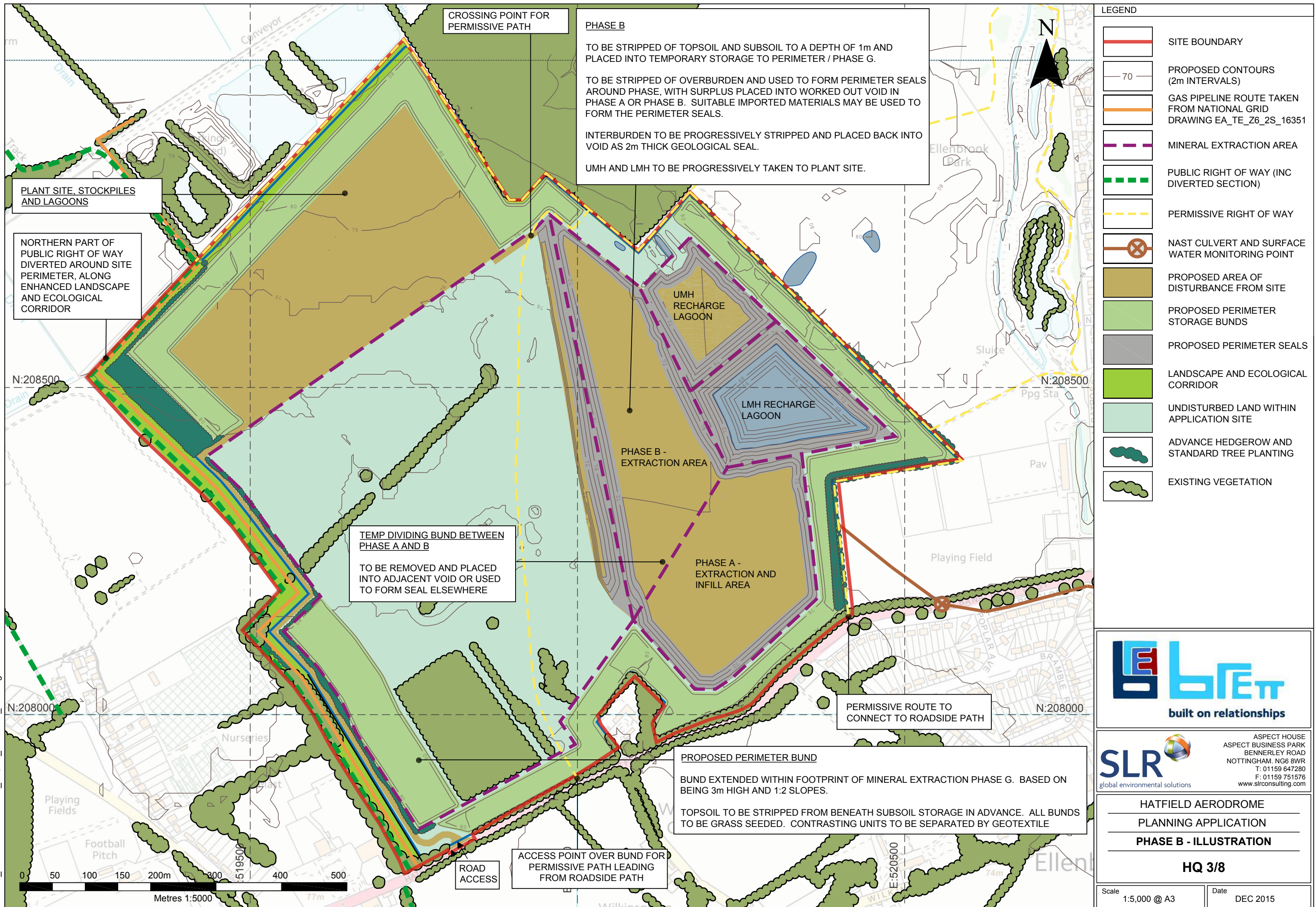
ASPECT HOUSE
ASPECT BUSINESS PARK
BENNERLEY ROAD
NOTTINGHAM. NG6 8WR
T: 01159 647280
F: 01159 751576
www.slrconsulting.com

HATFIELD AERODROME
PLANNING APPLICATION
PHASE A - ILLUSTRATION
HQ 3/7

Scale 1:5,000 @ A3

Date DEC 2015

160107_01009.00132.29.000_HQ3-8_PHASEB_SM.dwg



160107_01009.00132.29.000_HQ3-9_PHASEC_SM.dwg



LEGEND	
	SITE BOUNDARY
	PROPOSED CONTOURS (2m INTERVALS)
	GAS PIPELINE ROUTE TAKEN FROM NATIONAL GRID DRAWING EA_TE_Z6_2S_16351
	MINERAL EXTRACTION AREA
	PUBLIC RIGHT OF WAY (INC DIVERTED SECTION)
	PERMISSIVE RIGHT OF WAY
	NAST CULVERT AND SURFACE WATER MONITORING POINT
	PROPOSED AREA OF DISTURBANCE FROM SITE
	PROPOSED PERIMETER STORAGE BUNDS
	PROPOSED PERIMETER SEALS
	LANDSCAPE AND ECOLOGICAL CORRIDOR
	UNDISTURBED LAND WITHIN APPLICATION SITE
	PROPOSED SEMI-NATURAL SPECIES-RICH GRASSLAND
	ADVANCE HEDGEROW AND STANDARD TREE PLANTING
	EXISTING VEGETATION

built on relationships

SLR
global environmental solutions

ASPECT HOUSE
ASPECT BUSINESS PARK
BENNERLEY ROAD
NOTTINGHAM. NG6 8WR
T: 01159 647280
F: 01159 751576
www.slrconsulting.com

HATFIELD AERODROME
PLANNING APPLICATION
PHASE C - ILLUSTRATION

HQ 3/9

Scale: 1:5,000 @ A3

Date: DEC 2015

160107_01009.00132.29.000_HQ3-10_PHASEE_SM.dwg



PLANT SITE, STOCKPILES
AND LAGOONS

NORTHERN PART OF
PUBLIC RIGHT OF WAY
DIVERTED AROUND SITE
PERIMETER, ALONG
ENHANCED LANDSCAPE
AND ECOLOGICAL
CORRIDOR

N:208500

PHASE E -
EXTRACTION AREA

PHASE C -
INFILL AND
RESTORATION
AREA

PHASES A & B -
RESTORED AREA

UMH RECHARGE
LAGOON

LMH RECHARGE
LAGOON

PHASE D -
EXTRACTION AND
INFILL AREA

ROAD
ACCESS

ACCESS POINT OVER BUND FOR
PERMISSIVE PATH LEADING
FROM ROADSIDE PATH

PERMISSIVE ROUTE TO
CONNECT TO ROADSIDE PATH

N:208500

N:208000

E:520500

LEGEND	
	SITE BOUNDARY
	PROPOSED CONTOURS (2m INTERVALS)
	GAS PIPELINE ROUTE TAKEN FROM NATIONAL GRID DRAWING EA_TE_Z6_2S_16351
	MINERAL EXTRACTION AREA
	PUBLIC RIGHT OF WAY (INC DIVERTED SECTION)
	PERMISSIVE RIGHT OF WAY
	NAST CULVERT AND SURFACE WATER MONITORING POINT
	PROPOSED AREA OF DISTURBANCE FROM SITE
	PROPOSED PERIMETER STORAGE BUNDS
	PROPOSED PERIMETER SEALS
	LANDSCAPE AND ECOLOGICAL CORRIDOR
	UNDISTURBED LAND WITHIN APPLICATION SITE
	PROPOSED SEMI-NATURAL SPECIES-RICH GRASSLAND
	ADVANCE HEDGEROW AND STANDARD TREE PLANTING
	EXISTING VEGETATION



SLR
global environmental solutions

ASPECT HOUSE
ASPECT BUSINESS PARK
BENNERLEY ROAD
NOTTINGHAM, NG6 8WR
T: 01159 647280
F: 01159 751576
www.slrconsulting.com

HATFIELD AERODROME
PLANNING APPLICATION
PHASE E - ILLUSTRATION

HQ 3/10

Scale 1:5,000 @ A3 Date DEC 2015

160107_01009.00132.29.000_HQ3-11_RESTORATION_SM.dwg



LEGEND

- GAS PIPELINE ROUTE TAKEN FROM NATIONAL GRID DRAWING EA_TE_Z6_2S_16351
- PUBLIC RIGHT OF WAY
- PERMISSIVE RIGHT OF WAY
- MINERAL EXTRACTION AREA
- NAST CULVERT AND SURFACE WATER MONITORING POINT
- RETAINED ACCESS ROAD
- POTENTIAL INDICATIVE LOCATION OF BACK DRAIN

LEGEND

- SITE BOUNDARY
- PROPOSED CONTOURS (2m INTERVALS)
- PROPOSED OPEN DITCH/SWALE
- ADVANCE HEDGEROW AND TREE PLANTING
- EXISTING TREES AND SHRUBS
- PROPOSED HEDGROW
- PROPOSED SCRUB
- PROPOSED SEMI-NATURAL SPECIES RICH GRASSLAND
- PROPOSED MARGINAL VEGETATION/REEDBED
- WATER BODY / PONDS
- UNIMPROVED NEUTRAL-ACIDIC GRASSLAND
- NEUTRAL-ACIDIC GRASSLAND
- CALCAREOUS GRASSLAND
- PROPOSED RIDGE AND FURROW
- CULVERTED REACH OF NAST

REFER TO DRAWING HQ 3/12 FOR SECTION ILLUSTRATIONS



ASPECT HOUSE
ASPECT BUSINESS PARK
BENNERLEY ROAD
NOTTINGHAM, NG6 8WR
T: 01159 647280
F: 01159 751576
www.slrconsulting.com

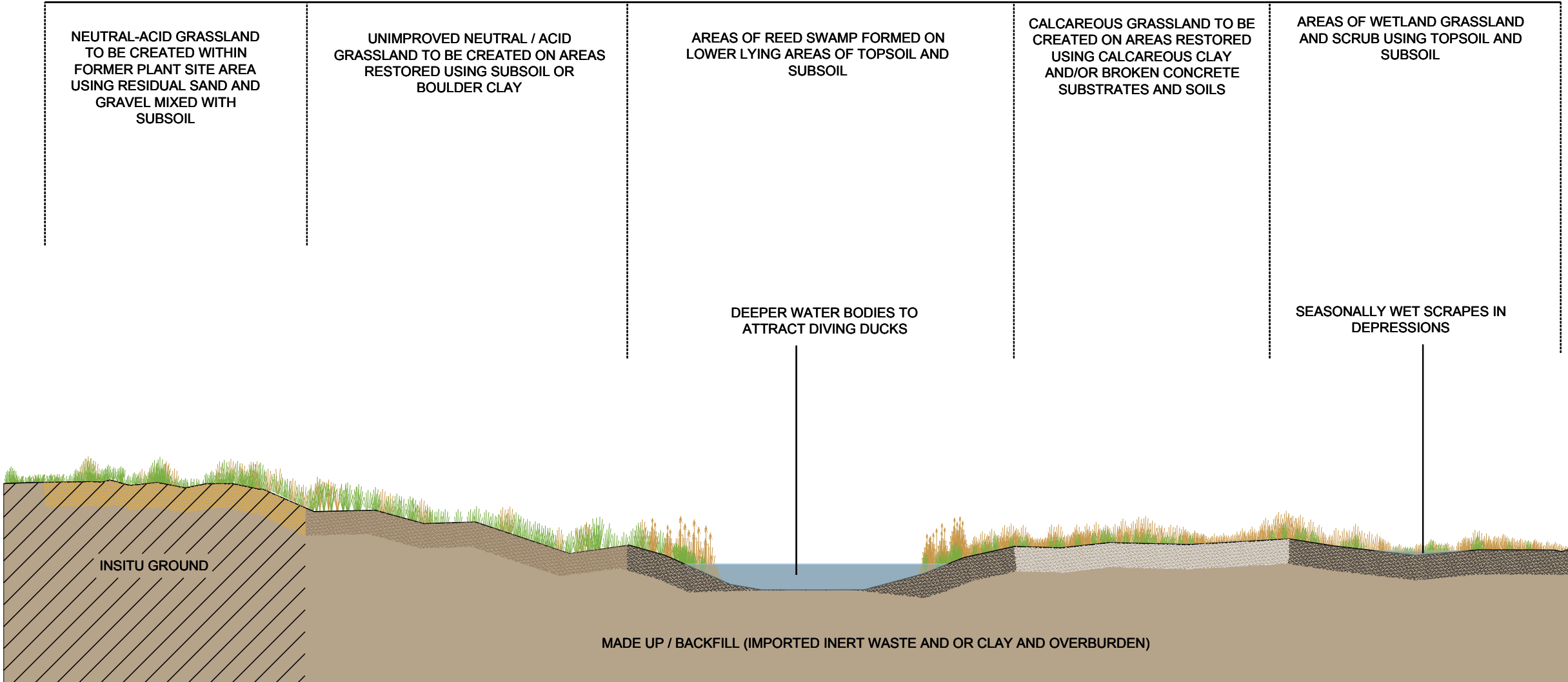
HATFIELD AERODROME
PLANNING APPLICATION
ILLUSTRATIVE RESTORATION
CONCEPT

HQ 3/11

Scale AS SHOWN

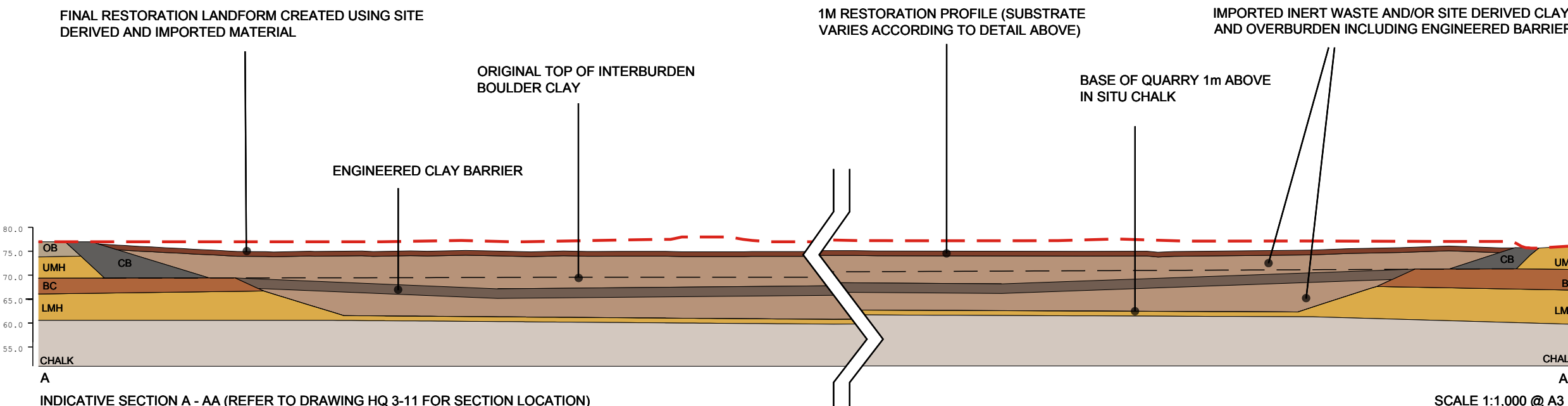
Date DEC 2015

160107_01009.00132.29.000_HQ3-12_SECTIONS_SM.dwg



INDICATIVE DETAIL SECTION OF RESTORATION SUBSTRATES AND MICRO-TOPOGRAPHY

NOT TO SCALE



LEGEND

SECTION LEGEND

EXISTING LANDFORM

INSITU HORIZONS

OB SOIL AND OVERBURDEN

BC INTERBURDEN BOULDER CLAY

UMH LMH UPPER MINERAL HORIZON AND LOWER MINERAL HORIZON (INSITU)

CHALK CHALK

SITE DERIVED AND IMPORTED MATERIALS AS BACKFILL

1M THICK RESTORATION PROFILE (SUBSTRATE VARIES ACCORDING TO DETAIL)

IMPORTED INERT WASTE AND SITE DERIVED MATERIAL

ENGINEERED CLAY CAP / BARRIER

CB ENGINEERED CLAY PERIMETER SEAL/ EMBANKMENT

RESTORATION SUBSTRATES

RESIDUAL SAND AND GRAVEL MIXED WITH SUBSOIL

SUBSOIL OR BOULDER CLAY

TOPSOIL AND SUBSOIL

CALCAREOUS CLAY OR BROKEN CONCRETE AND SOILS

ELTE
built on relationships

SLR
global environmental solutions

ASPECT HOUSE
ASPECT BUSINESS PARK
BENNERLEY ROAD
NOTTINGHAM. NG6 8WR
T: 01159 647280
F: 01159 751576
www.slrconsulting.com

HATFIELD AERODROME
PLANNING APPLICATION
ILLUSTRATIVE SECTIONS

HQ 3/12

Scale AS SHOWN Date DEC 2015

