MAGNA PARK Extension

HYBRID PLANNING APPLICATION:

15/01531/OUT

Addendum to the Environmental Statement –
the Grant of Planning Permission for DHL Supply Chain 15/00919/FUL
Volume 2: the Addendum

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LUTTERWORTH

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Magna Park Extension: Hybrid Application
15/01531/OUT

ADDENDUM
to the
ENVIRONMENTAL STATEMENT

October 2016

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1 INTRODUCTION

Introduction

1.1 This document is Volume 2 of the Addendum to the Environmental Statement for IDI Gazeley's Hybrid planning application (15/01531/OUT) to extend Magna Park. The main Environmental Statement (ES) and this Addendum have been prepared in compliance with the Town & Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 2011 (the 'EIA Regulations'). The main ES was submitted with the planning application in October 2015 and was updated with further information in February, March and April 206. Volume 2 of the Addendum provides the addenda to the relevant chapters of the main ES as explained below in paragraph 1.9 below.

1.2 The Addendum to the ES is necessitated by, and follows, the grant on 25 October 2016 of detailed (conditional) planning permission for an expansion facility for DHL Supply Chain (15/00919/FUL). The proposals for that now permitted application fall within and are also promoted in outline by the Hybrid planning application. There are three reasons why this Addendum to the main ES is needed:

- The grant of planning permission for the DHL Supply Chain facility is a material change in circumstances which Harborough District Council (HDC) is obliged to consider prior to its determination of the Hybrid application. As the permission is extant and capable of implementation, considerable weight should be given to that planning permission. The DHL Supply Chain application was advanced separately precisely so it could be brought forward separately.
- The grant of planning permission is significant in judging a number of environmental impacts and bears on the cumulative assessment of impacts.
- HDC intend to consider the Hybrid application alongside the application by db symmetry for symmetry park (15/00865/OUT) and therefore to compare the two applications The grant of planning permission is material to that comparison insofar as the applications are comparable.[1]

[1] The two applications are only comparable in that both propose to contribute to meeting the need for additional distribution warehousing in the area. The Hybrid application, after DHL Supply Chain, proposes in Zone 1 a further 318,956 sq m; although the application is in outline, planning permission is sought for a range of details (see paragraph 2.3 in addition to means of access. The symmetry park scheme proposes 278,709 sq m of warehousing to create a second distribution park to the south of Magna Park; the application is in outline, with all matters but means of access reserved. In contrast to symmetry park, the Hybrid application both extends an established, proactively managed, distribution park and includes elements for which there are no parallels in the symmetry park application. These include, in the Hybrid's Zone 1 site the 42 ha Country Park and its network of public rights of way and permissive foot and bridle paths that link the Country Park to the wider network (and to Magna Wood on Magna Park), the Logistics Institute of Technology, the Innovation Centre and the Local Heritage Centre; and in the Zone 2 site for which detailed planning permission is sought, the 140 space HGV Park that will serve Magna Park's existing occupiers as well as those of the proposed extension (the symmetry park 52 space HGV park is for that scheme's HGVs only), the Driver Training Centre, and the Railfreight Shuttle and associated terminal.

1.3 This Addendum to the ES sits alongside the main ES and should be considered in tandem with it. The main ES includes the further information that was requested and was notified and provided by IDI Gazeley's team, in accordance with Regulation 22(2) of the EIA Regulations 2011, in February, March and May 2016:

- February 2016: updated ES chapters to take account trial trenching and historic buildings assessment, and clarifications and further information on transport and traffic and public access, landscape and visual effects.
- March 2016: updated ES chapters to take account of the Level 4 Historic Buildings Survey of Bittesby House and the outcome of the use of the Leicester and Leicestershire Integrated Transport Model (LLITM) to assess transport and traffic effects.
- April 2016: updated ES chapters to take into account the amendment of the planning application to retain Bittesby House, in response to requests from The Landscape Partnership (who act for HDC) for clarifications and further information on the proposed development's landscape and visual impact effects, and to provide an update to the Transport Assessment in response to a request for further information from Highways England.

The Scope of the Addendum

1.4 IDI Gazeley volunteered to provide the additional information for the ES that is provided by this Addendum, but has agreed the scope of the Addendum with HDC.

1.5 For the more significant changes, detailed methodologies have also been agreed: with Leicestershire County Council (LCC County Highway Authority) for transport and traffic; with TLP for landscape and visual effects; and with LCC Conservation for heritage and archaeology.

1.6 The scope of the Addendum agreed with HDC is as follows:

- Each matter covered by the main ES will be considered, and as appropriate addressed by the Addendum. In each case, in accordance with EIA Guidance, the focus will be on the submitted evidence where it shows there is a potential for significant environmental effects.
- Each baseline will be adjusted to treat DHL Supply Chain (and its mitigation schemes) as a commitment.
- The residual impact, with DHL Supply Chain, of the remaining parts of the Hybrid application will be assessed, taking into account the mitigation already permitted on site and off it (e.g., Whittle Junction, the works to the A5).
- The cumulative impact assessment (CIA) for the Hybrid with DHL Supply Chain (and its mitigation schemes) as a commitment will be carried out, with the CIA also accounting for the other agreed commitments plus the proposals for symmetry park (as in the main ES).
- The Addendum will include a summary of the changed/revised conclusions and a non-technical summary,

1.7 The effects on hydrology have been scoped out of the Addendum assessment. The main ES Chapter 8 – Hydrology chapter prepared by Capita explicitly takes into account the effects of the DHL Supply Chain scheme in the evaluation of the scheme's overall environmental impact. Capita do not believe there is any purpose to be served by re-visiting this chapter now that DHL has received separate planning consent and will be constructed ahead of the remainder of the Hybrid application for the extension of Magna Park. Chapter 8 of the main ES considers (inter alia) the effects on surface and ground water quality, surface run-off rates and flood risk. The effects on such will be the same whether the DHL Supply Chain scheme is built out as a 'stand-alone' development followed in time by the remainder of the extension, or as part of the overall development.

1.8 The structure of the Addendum has also been agreed with HDC and is set out below.

Structure of the Addendum to the ES

1.9 The Addendum is structured in three volumes:

- Volume 1: the Non-technical Summary
- Volume 2: the ES Addendum
- Volume 3: Appendices to the ES Addendum

1.10 This part of the ES Addendum, Volume 2, is set out as follows:

- Section 2 provides the quantitative details on the parts of Hybrid application which now benefit from the grant of planning permission for DHL Supply Chain – areas of land, on and off-site infrastructure, quanta of floorspace etc.
- Sections 3-10 provide an addendum ES for each matter covered by the main ES:
  - Section 3: Addendum to Socio-economic effects (Chapter 5 of the main ES)
  - Section 4: Addendum to Transport and Traffic (Chapter 6 of the main ES)
  - Section 5: Addendum to Noise and Vibration (Chapter 7 of the main ES)
  - Section 6: Addendum to Hydrology (Chapter 8 of the main ES)
  - Section 7: Addendum to Landscape and Visual Impact (Chapter 9 of the main ES)
  - Section 8: Addendum to Air Quality Effects (Chapter 10 of the main ES)
  - Section 9: Addendum to Heritage and Archaeology (Chapter 11 of the main ES)
  - Section 10: Addendum to Ecology (Chapter 12 of the main ES)
  - Section 11: Cumulative Impact Assessment with DHL Supply Chain as a Commitment
  - Section 12: Summary and Interactions

1.11 Volume 3 provides the following appendices:

ES Addendum Volume 3A:

- 3A.1: Plans 1 and 2 Accounting for DHL Supply Chain within the Hybrid Application
- 3A.2: Addendum to Main ES Technical Appendices F.1, F.5 and F.7

ES Addendum Volume 3B:

- Addendum Transport Assessment
- Appendices 1 and 2 to the Addendum ES Section 4 – Traffic and Transport

2 THE DHL SUPPLY CHAIN PERMISSION – QUANTITATIVE IMPLICATIONS

Introduction

2.1 This section of the Addendum sets out the quantitative details – measured by land areas and uses, quanta of proposed buildings and on- and off-site infrastructure – of the DHL Supply Chain planning permission (15/00919/FUL) and places these in the context of the Hybrid planning application (15/01531/OUT).

2.2 The purpose of this section is to provide the contextual information for the addenda to the main ES chapters that follow in Sections 3-10:

- In quantitative terms, that context is the 'remainder of the Hybrid development' once the already DHL permitted element accounted by the DHL Supply Chain permission is 'deducted'.
- In environmental impact terms, the baseline for the assessment of the environmental effects of the 'remainder of the Hybrid application' is altered by the assumption, for the purposes of the addenda to the main ES that follow, that the DHL Supply Chain facility is built as permitted, including all of the on-site mitigation and all of the off-site highways works (A5 dualling, the A5/Mere Lane roundabout junction and the improvement works to the Whittle junction).
- In planning terms, the consent for the DHL Supply Chain facility establishes the acceptability of the parts of the Hybrid planning application that are accounted for by the DHL Supply Chain application – including the residual environmental impacts of that part of the Hybrid application, the extent of the compliance with the planning policies that are engaged, and the nature and balance of the benefits in favour of that part of the Hybrid application accounted by the DHL Supply Chain application.

2.3 The Zone 1 element of the Hybrid planning application is in outline, with planning permission sought for the means of access plus all of the following details:

- The siting, maximum extent and use of each of the land parcels defined by the submitted Parameter Plan 1 (the parcels together cover the whole of the Zone 1 site).
- The maximum built quanta in each of the parcels with buildings (see Table 2.1 below) – Parcel E for the new Hub with the Logistics Institute of Technology, Innovation Centre – linked to Bittesby House and its barns which contain the Local Heritage Centre and visitor centre for the Country Park.
- The maximum heights of the buildings and the restrictions on the siting of warehousing yards (containing them to land areas between warehousing units and along the A5) as set out in the submitted Parameter Plan 2.

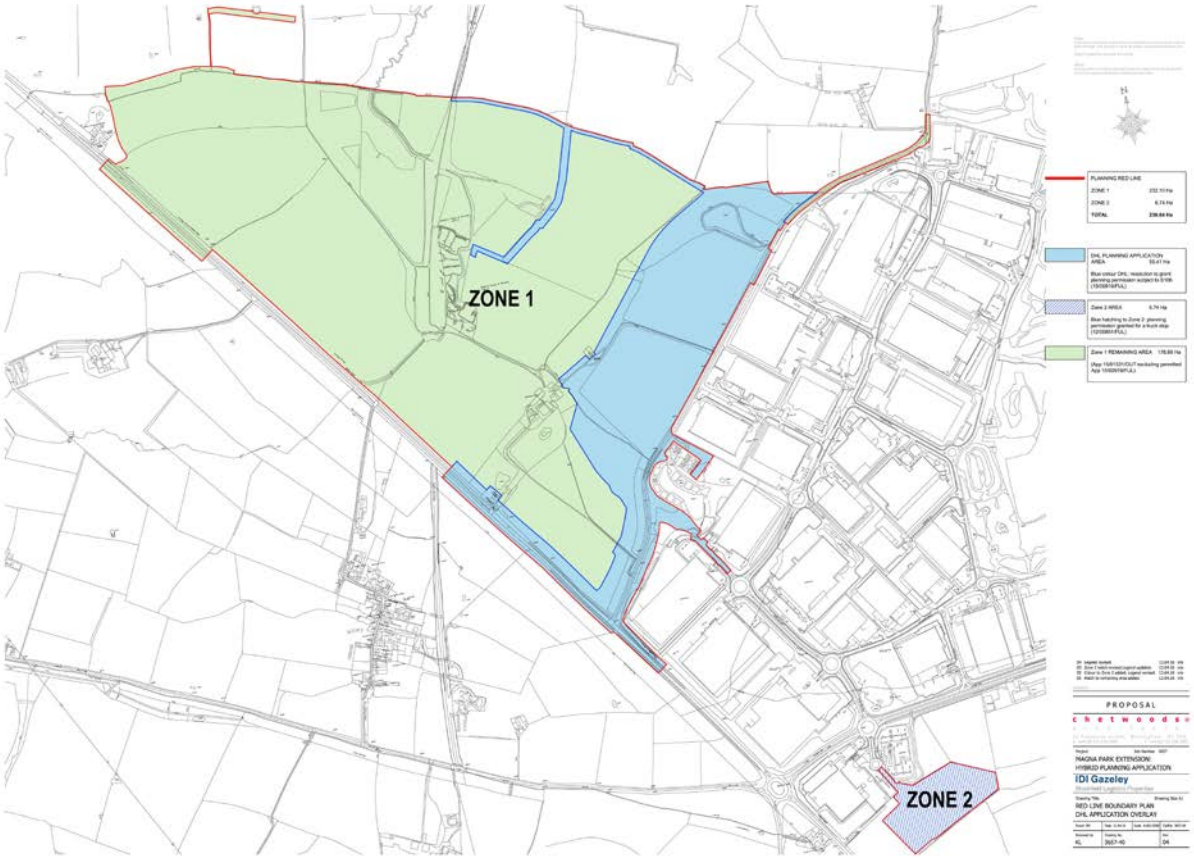
2.4 The DHL Supply Chain facility has a detailed planning permission, and detailed planning permission is sought for the Hybrid application's Zone 2 development – for an HGV Driver Training Centre, 140 space HGV park for existing Magna Park

business as well as the extension, the LPG/CNG/electric fuelling station and vehicle wash and the Railfreight Shuttle and associated terminal (for all Magna Park occupiers).

The DHL Application overlaid on the Hybrid Application

2.5 Figure 2.1 shows in the area of the DHL Supply Chain consent that lies within the site of the Hybrid planning application (an A3 version of Figure 2.1 is provided in Volume 3 of this ES Addendum).

Figure 2.1: The Permitted DHL Supply Chain Site overlaid on the Hybrid Application Site



2.6 Table 2.1 (overleaf) provides a full account of the site areas (in hectares), land uses and built development (in square metres) proposed by the Hybrid application and the shares that are accounted for by the planning permission for DHL Supply Chain. Volume 3, Plans 1 and 2, show the areas that are the basis for the figures in Table 2.1.

2.7 The main points are that the DHL Supply Chain planning permission:

- accounts for 24% (55.41 ha) of the 230.83 ha Hybrid application Zone 1 site (noting that 16.7 ha of the 55.41 DHL application site is accounted by land already within Magna Park and land in the public highway);
- accounts for 26.6% (21.86 ha) of the Hybrid's 82.24 ha for distribution warehousing; and

- will deliver 58.6% of the infrastructure needed for the Hybrid scheme (the services farm extension, internal roads and works to the A5 and Mere Lane).

2.8 The DHL Supply Chain development will also deliver a major improvement scheme for the A426/A4303 (Sir Frank Whittle) junction – producing sufficient capacity for the Hybrid application and for symmetry park (should both be permitted) and improving its operation over a 'without development' scenario. The added dualling of the A5 plus the roundabout junction with Mere Lane will deliver consequential improvements to the function of the A5/A4303 (Cross-in-Hand) junction, again improving conditions over a 'without development' scenario.

Table 2.1: Summary of Hybrid Application (Zone 1) with and without DHL Supply Chain*

Area / Use	**Hybrid Application**	**Permitted for DHL Supply Chain**	**Hybrid *net of DHL Supply Chain***
Total site area (all land within the application boundary**)	230.83 ha	55.41 ha	175.42 ha
Net site area *excluding* - land in the public highway - land already within the Magna Park footprint (Services Farm, Argosy Way)	211.56 ha	38.71 ha	172.85 ha
Site areas by use: - distribution warehousing + - Hub (LIT and campus, MPIC) - Holovis expansion - Country Park - Meadow + - Other green infrastructure (in addition to Mere Lane lagoon and land already within Magna Park)	82.24 ha 6.58 ha 2.68 ha 42.32 ha 28.12 ha 32.51 ha	21.86 ha 15.69 ha	60.38 ha } } no change } } 17.31 ha
Built development: - distribution warehousing + - Logistics Institute of Technology - Magna Park Innovation Centre (MPIC) - Holovis expansion - Estate office	419,800 sq m 3,700 sq m 2,325 sq m 7,000 sq m 300 sq m	100,844 sq m	318,956 sq m } } no change } }
Highways infrastructure on site	15.40 ha including public car parks at Bittesby House and Mere Lane Lagoon	1.16 ha including public car park at Mere Lane Lagoon	14.24 ha including public car park at Bittesby House (for the Country

Area / Use	Hybrid Application	Permitted for DHL Supply Chain	Hybrid *net of DHL Supply Chain*
			Park and Local Heritage Centre)
Highways infrastructure off site	• A5 dualling • A5 – two new junctions • Junction works: - A5/A4303 (Whittle junction) - A5/A426 (Gibbet Hill)	• A5 dualling • A5 – one new junction • Junction works: - A5/A4303 (Whittle junction)	• Second A5 junction • Junction works: - A5/A426 (Gibbet Hill)

*The basis of the site areas and floorspace calculations is provided in Plans 1-4 in Volume 3 of the Addendum
**Excluding Bittesby House and retained grounds and barns – 1.27 ha

2.9 Of the 175.42 ha remainder of the Hybrid application site (i.e., excluding the permitted DHL Supply Chain application proposals), a further 2.57 ha is accounted by land already within Magna Park and in the public highway.

2.10 The 'net additional' land, therefore and after DHL Supply Chain, is a total of 172.85 ha. The breakdown of the 172.85 ha of net additional land is also material:

- 87.75 ha – just over half the 172.85 ha net additional site – is given to publicly accessible open space that is also linked to the existing, now mature, Magna Wood with its over 1 million trees and existing network of footpaths;
- 60.38 ha – just over a third of the net additional site – is land for distribution warehousing and includes substantial areas for tree-planting and earth bunds;
- 6.58 ha is land for the Hub (with the Logistics Institute of Technology and Innovation Centre), of which 1.05 ha is for a playing field for LIT that is to be dual use with the community; and
- 2.68 ha is land for the purpose-built expansion building for Holovis, a global and rapidly expanding high technology firm already operating from barns on the site.

3 ADDENDUM TO ES CHAPTER 5: SOCIO-ECONOMIC EFFECTS

Introduction

3.1 This section of the Addendum sets out the changes to the assessment of the socio-economic effects in the main ES Chapter 5: Socio-economic Effects that follow from the exclusion of the DHL Supply Chain scheme from the Hybrid application development. As does the main ES Chapter 5, the addendum here considers both the construction and operation phases, in this case of the remainder of the Hybrid development. The assessment has been prepared by CAG Consultants who also prepared the main ES Chapter 5.

3.2 This section also re-states the cumulative impact, although this is the same as in the main ES Chapter 5, as the cumulative impact would include the DHL Supply Chain development in both cases (as part of the Hybrid development in the assessment of cumulative effects with agreed schedule of committed developments and as part of the Hybrid development for the cumulative effects additionally with the proposed symmetry park development).

3.3 No revisions have been made to the original methodology and hence only revised impacts are reported in this addendum. There have also been no changes to the policy and guidance set out in the main ES Chapter 5.

Construction Effects

3.4 We estimate that the construction costs of the DHL element of the scheme account for around 13% of the total development costs. Table 5.1 presents the employment impact of construction jobs absent DHL. This yields 250 net additional local jobs in HDC when multiplier effects are taken into account and 804 net additional local jobs in Leicestershire.

Table 3.1 Additionality of Construction Employment, excluding DHL Supply Chain

	Harborough	Leicestershire
Gross construction jobs	1,422	1,422
Local jobs after 82%/42% leakage	256	825
Local jobs after 25% displacement	192	618
Local Multiplier effects	1.3	1.3
Net additional local jobs Harborough	250	804

GVA

3.5 GVA per head in the construction industry in England is £39,532.[2] The proposed development with therefore result in an additional workplace GVA of £56.2 million over the build period.

Significance of Predicted Effects

3.6 Based on the significance criteria in Table 5.4 of the main ES Chapter 5, compared against the amended baseline, the construction employment generated at the site is a moderate beneficial effect as it contributes to a 0.6% increase in employment in for Harborough residents.

Operational Effects

3.7 Without DHL Supply Chain, the B8 element of the proposed scheme is for 318,956 sq m.[3] All other development proposals remain the same as those assessed in the main ES, and thus the socio-economic benefits associated with all other elements of the Hybrid application remain as set out in the main ES and in the separately issued October 2015 report – The Economic Case for Magna Park.

3.8 Table 5.2 presents the operational impacts of the scheme absent the DHL development.

Table 3.2 Summary Economic Impacts – excluding DHL Supply Chain

Workplace	**Jobs**	**GVA £m**
Logistics & Warehousing	3,987	£199.3
Innovation Centre	145	£5.8
Holovis	219	£10.9
Logistics Institute of Technology	83	£4.1
Railfreight Shuttle	12	£0.5
Total Operational	**4,446**	**£220.7**
Construction	1,422	£56.2
Total Operational and Construction	**5,867**	**£276.9**

[2] Calculations using ONS Blue Book 2012, ONS NOMIS Workforce Database

[3] There is a minor change in the overall quantum of distribution warehousing floorspace (Use Class B8) from that assessed in the main, October 2015, ES. The change followed the minor amendment to the planning application to allow for the retention of Bittesby House (the effect of which was to necessitate a reduction in B8 floorspace to a maximum of 419,800 sq m from the original maximum of 427,200 sq m)

Harborough after Additionality and Multipliers	Jobs	GVA £m
Logistics & Warehousing	700	£35.0
Innovation Centre	85	£3.4
Holovis	46	£2.3
Logistics Institute of Technology	17	£0.9
Railfreight Shuttle	2	£0.1
Total Operational	**850**	**£41.6**
Construction	250	£9.9
Total Operational and Construction	**1,100**	**£51.5**

Leicestershire after Additionality and Multipliers	Jobs	GVA £m
Logistics & Warehousing	2,255	£112.7
Innovation Centre	128	£5.1
Holovis	148	£7.4
Logistics Institute of Technology	56	£2.8
Railfreight Shuttle	7	£0.3
Total Operational	**2,593**	**£128.3**
Construction	804	£31.8
Total Operational and Construction	**3,397**	**£160.1**

3.9 Table 5.3 presents the occupational breakdown of the logistics and warehousing employment absent the DHL development.

3.10 Even excluding the DHL Supply Chain element of the Hybrid application, the socio-economic benefits of the Hybrid Application remain Major Beneficial.

Table 3.3 Occupation Breakdown of Operational Employment – ex DHL
(Source: National Skills Survey)

	Percentage of jobs*	Approximate no. of jobs
Managers and Senior Officials	18%	718

	Percentage of jobs*	Approximate no. of jobs
Professional Occupations	2%	80
Associate Prof & Tech Occupations	8%	319
Administrative and Secretarial Occupations	13%	518
Skilled Trades Occupations	3%	120
Personal Service Occupations	3%	120
Sales and Customer Services Occupations	6%	239
Process, Plant and Machine Operatives	22%	877
Elementary Occupations	25%	997
Total	**100%**	**3,987**

Cumulative Effects

3.11 The cumulative impact of the development proposals will be unchanged from the original ES. This concluded that, “Cumulatively if all developments went ahead and were occupied there would be an additional 21,298 jobs in the sub-regional economy, or 24,782 if land adjacent to Glebe Farm were included. This increase should be seen in the context of a projected labour force growth of between 94,000-102,000 over the period 2018-31 in Magna Park's workforce catchment area.”

3.12 The main ES Chapter 5 also explains, drawing on the evidence set out in the Economic Case for Magna Park (October 2015), that these labour force projections underpin the planned housing provision over this period by the 16 local authorities who make up Magna Park’s labour market catchment.

4 ADDENDUM TO ES CHAPTER 6: TRAFFIC AND TRANSPORT

Introduction

4.1 This section sets out addendum assessment to the main ES Chapter 6: Traffic and Transport, and has been prepared by Aecom as was the main ES Chapter 6. The assessment considers the likely significant effects, during the construction and operation phases, on traffic and transport of the remainder of the Hybrid development absent the permitted DHL Supply Chain development. The DHL Supply Chain scheme for the purposes of this addendum assessment is assumed to form part of the baseline conditions, including all of the associated highway improvements that will be delivered by that scheme. Those improvements include the new roundabout on Mere Lane linking DHL to the existing Magna Park, the new A5/ Mere Lane roundabout and the capacity improvements at the Whittle junction (A426/ A4303).

4.2 This addendum assessment set out in this section draws on the separately issued Addendum Transport Assessment (ATA) which sets out more detailed transport related information upon which this section of the ES Addendum is based. This section of the ES Addendum also sets out the change in public transport provision that has taken place at Magna Park since the main ES Chapter 6: Traffic and Transport was submitted.

4.3 This addendum should be read in combination with the main ES Chapter 6.

Policy and Guidance

4.4 The items of policy, legislation and guidance set out in the main ES Chapter 6 have not changed since it was prepared.

Assessment Method

4.5 The methodology used for this addendum assessment reflects the same standard IEMA guidance for preparing an ES that was adopted by the main ES Chapter 6. For ease of reference the significance criteria is repeated in Table 4.1 below.

4.6 The significance of operational trips has taken into consideration the mitigation of the effects. The effects have been characterised as either:

- Beneficial: meaning that the changes produce benefits in terms of transportation and access (such as reduction of traffic, travel time or patronage, or provision of a new service, access or facility);
- Negligible: meaning that their bearing is too small to measure meaningfully; or
- Adverse: meaning that changes produce adverse effects in terms of transportation and access (such as increase of traffic, travel time, patronage or loss of service or facility).

4.7 Beneficial and adverse effects have been further characterised as:

- Minor: slight, very short or highly localised effect of no significant consequence (10% to 30% change);
- Moderate: limited effect (by extent, duration or magnitude) which may be considered significant (30% to 60% change); or
- Major**:** considerable effect (by extent, duration or magnitude) of more than local significance or in breach of recognised acceptability, legislation, policy or standards (greater than 60% change).

Table 4.1: Significance Criteria

Impact	**Level of Significance**			
	Negligible	**Minor**	**Moderate**	**Major**
Change in driver journey time / delay	Change of less than 2 minutes	Change of more than 2 minutes and less than 5 minutes	Change of more than 5 minutes and less than 20 minutes	Change of more than 20 minutes
Change in pedestrian and cyclist journey time / delay	Change of less than 2 minutes	Change of more than 2 minutes and less than 5 minutes	Change of more than 5 minutes and less than 10 minutes	Change of more than 10 minutes
Change in level of accessibility for pedestrian and cyclists	Change of less than 2 minutes in journey time	Change of more than 2 minutes and less than 5 minutes in journey time; Need to cross quiet road	Change of more than 5 minutes and less than 10 minutes in journey time; Need to cross busy road; Closure of one or more points of access to a location	Change of more than 10 minutes in journey time; Need to cross busy major road; Closure of all points of access to a location
Change in pedestrian and cyclist amenity	Change in road traffic or HGVs of less than 30%, or less than 10% if location considered sensitive	Change in road traffic or HGVs of 30% to 49%; Slight increase or decrease in width of footway/ cycleway	Change in road traffic or HGVs of 50% - 99%; Large change in width of footway/ cycleway; Closure or opening up of short stretch (<100m long) of footway/ cycleway	Change in road traffic or HGVs of 100% or more; Closure or opening of long stretch (>100m long) of footway/ cycleway
Public Transport	No change in passenger crowding	Increase in crowding on service below capacity	Increase in crowding on service above or close to capacity	Passenger demand results in crowded conditions

4.8 Further to the significance criteria set out above, the IEMA recommends a detailed environmental assessment for highway links where:

- traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%); and
- specific environmental problems may occur (sensitive areas affected by traffic increases of at least 10% unless there are significant changes in the composition of traffic).

Baseline Conditions

General

4.9 This section provides details of changes to the transport network and traffic flows on the basis that the DHL Supply Chain development forms part of the baseline

conditions. It also sets out the change in public transport provision that has taken place at Magna Park since the main ES Chapter 6 was prepared.

Surrounding Highway Network

4.10 The DHL Supply Chain facility is accessed via a new roundabout on Mere Lane that connects the site to Magna Park to the south and the A5 to the west. The connection to Magna Park is achieved by an extension to Argosy Way between existing plots 1400 and 1500. To access the DHL Supply Chain unit, a new access road will be constructed to form the north western arm of the roundabout.

4.11 Approximately 100m north west of the roundabout, the access road turns sharp right at a ghost island priority junction to provide access to the DHL Supply Chain car park and the service yard. Access to the service yard will be controlled by a security gatehouse.

4.12 New bus laybys will be provided on Argosy Way just to the south east of the new roundabout on Mere Lane. This allows the existing bus route that serves Magna Park (Route 8) to divert into Magna Park from Mere Lane thus avoiding the need to join the A5 and negotiate the A5/ A4303 (Cross in Hand) roundabout. Footways will be provided to enable direct pedestrian routes to the DHL unit and at-grade uncontrolled crossings are provided at the splitter islands of the new roundabout to ensure that pedestrians can cross Mere Lane and Argosy Way safely.

4.13 An emergency access is proposed in the north east corner of the plot onto Mere Lane. This will be locked and gated and only used in the event that the main access road becomes impassable.

4.14 The section of Mere Lane between the A5 and the new access roundabout will be realigned and upgraded to a 7.3m carriageway. The redundant section of Mere Lane will be stopped-up under Section 247 of the Town and Country Planning Act 1990. It will be reclassified as a public footpath providing an informal link to an existing public footpath on the west side of the A5.

4.15 Between the A5 and the proposed site access, the existing 7.5 tonne weight restriction on Mere Lane will be removed to allow HGVs to access the DHL building and the existing Magna Park from the A5. The weight restriction will be relocated to the north east of the new roundabout on Mere Lane to prevent HGVs from using Mere Lane as an alternative route to Lutterworth and the A426.

4.16 A new roundabout will be provided on the A5 to replace the existing priority junction at Mere Lane. As part of the scheme the dual carriageway on the A5 will be extended from Emmanuel/ Lodge Cottages to the new roundabout over a distance of approximately 500 metres. The Emmanuel and Lodge Cottages will be demolished to make way for the widening of the A5 and the associated landscape works. The DHL Supply Chain access arrangements and associated highway improvements are shown on a drawing prepared by Hydrock and presented in Appendix D of the ATA (Drawing No. C161222 -1010 Rev P1).

4.17 A significant feature of the access arrangements is a new junction on Mere Lane to the north east of the DHL Supply Chain unit. This will provide access to a small visitor's car park (approximately 20 spaces) to promote public accessibility to the lagoon and the surrounding area. The access to the car park will be gated and controlled by Magna Park security to prevent access during the hours of darkness.

4.18 A new access will be provided from the realigned section of Mere Lane between the two new roundabouts to maintain access to Bittesby House via the existing access track. This replaces the existing access to Bittesby House which is also from Mere Lane and will remove two existing right angle bends at the southern end of the access track.

4.19 The existing access to Bittesby Farm and the Brick Barn (occupied by Holovis), which is on Mere Lane some 850m north east of the access to Bittesby House, will be closed. Access to the farm and the barn will be maintained by vehicles sharing the first part of the DHL access road and by the formation of a new vehicular connection extending in a north westerly direction from the end of the DHL access road.

4.20 As part of the planning consent for DHL, a junction improvement scheme will be provided at the A426/ A430 (Whittle junction). The scheme involves the provision of three entry lanes on each approach to the roundabout and spiral road markings on the circulatory carriageway to help guide vehicles through the roundabout. On the A4303 eastern arm, a flare length of approximately 80 metres will be provided allowing three lanes of traffic to form over a longer distance on the approach to the give way line. The improvement is shown on the Hydrock drawing presented in Appendix D of the ATA.

Public Transport Facilities

4.21 The provisions of the planning permission for DHL Supply Chain safeguard a bus service at Magna Park (including to serve the extension for DHL Supply Chain) for a minimum of five years. As a minimum the service will coincide with the main shift changeovers at 6am, 2pm and 10pm on all days including weekends and Bank Holidays and office hours at 9am and 5pm M-F. It will operate through and will serve new bus stops that are to be provided on Argosy Way.

4.22 Six new and upgraded bus stops have been installed in the existing Magna Park; the Argosy Way stops will be additional. The location of the stops is shown on a plan presented in Appendix K of the ATA. All the stops provide a flag, a pole and updated timetable information and most have a shelter with seating.

4.23 To encourage the use of the new bus service, DHL Supply Chain employees will be offered a bus pass which would provide free travel for a period of six months. The free bus pass will be a made available to a maximum of 30 per cent of the confirmed employees, and will run for a period of five years from first occupation. The expectation is that establishing travel behaviour during the early stages of the development will encourage employees to continue using public transport beyond the first six months of employment when the free bus pass has expired.

4.24 Since the main ES Chapter 6 was prepared two new bus services have been introduced at Magna Park. The first, Route X45 operated by Arriva, became operational on 3 April 2016 and operates between Thurmaston and Magna Park via Leicester city centre and Lutterworth High Street. It provides one return service to coincide with the main shift changeovers at 6am, 2pm and 10pm, and operates seven days a week. The indications are that it is being well used.

4.25 Route 8 operated by Stagecoach was introduced in June 2016. It operates between Rugby and Magna Park and serves the three main shift changeovers detailed above and the main office hours. Due to low passenger numbers the timetable for this service has recently been reviewed and from 24 October 2016 operates Monday to Friday only.

4.26 In support of the Hybrid development further improvements to public transport will be secured. One opportunity is to enhance the existing Route 8 operated by Arriva between Hinckley and Lutterworth with the potential of extending it to serve Nuneaton, where based on Census data and on recent surveys undertaken at Magna Park, a significant proportion of the Magna Park workforce resides.

Traffic Flow Characteristics

4.27 In order to assess the environmental effects of the remainder of the Hybrid development, it has been necessary to establish a revised future Base Scenario that includes traffic that will be generated by the construction and operation of the DHL Supply Chain development (including all the highways works associated with its delivery). This has been established by factoring the traffic flows obtained from the original traffic surveys up to 2026 and then manually superimposing the DHL Supply Chain traffic. Details of the DHL Supply Chain traffic is presented in Appendix A of the ATA.

4.28 The multipliers that were used were the TEMPRO v.6.2 growth factors, adjusted for local growth using NTEM traffic growth calculations. These were applied to the traffic flows that were recorded in the surveys. The average of rural trunk and principal roads in the East Midlands District has been used to factor all traffic flows. The growth rates are presented Table 4.2A.

Table 4.1A: TEMPRO/ NTEM Growth Rates for East Midlands District

Period	AM Peak	PM Peak
2014 - 2026	1.199	1.207
2015 - 2026	1.191	1.197

4.29 Peak hour two-way flows on the highway network in the vicinity of the site are set out in Table 4.2B below together with the proportion of vehicles that are heavy goods vehicles. The location of the flows is shown on a plan provided in Appendix C.4 of Volume 3 of the original ES.

Table 4.2B: Future Baseline Peak Hour Two-Way Traffic Flows

Location	AM Peak		PM Peak	
	All Vehs	HGV	All Vehs	HGV
A – Hunter Boulevard	1,230	272	928	211
B – A4303 between Hunter Boulevard & A5	1,821	192	1,659	141
C – A5 south of A4303	1,549	202	1,334	122
D – B4027 Lutterworth Road	427	10	467	5
E – Coal Pit Lane	511	8	451	10
F – A5 north of A4303	1,668	126	1,587	96
G – A5 north of Mere Lane	1,636	165	1,443	113
H – Mere Lane east of A5	372	43	290	22
I – Mere Lane east of Magna Park	142	5	122	3
J – A4303 between Hunter Bld & Coventry Road	2,030	262	2,048	230
K – Coventry Rd between A4303 & Brookfield Way	928	16	956	11
L – A4303 between Coventry Road & A426	1,455	250	1,461	221
M – A426 Rugby Road north of A4303	1,726	132	1,767	46
N – A4303 between A426 & M1 J20	2,931	398	2,785	291
O – A4304 east of M1 J20	1,234	72	1,382	62

Construction Effects and Mitigation

Impact on Local Highway Network

4.30 A detailed analysis of the construction phase was undertaken and presented in the main ES Chapter 6 where it was concluded that the impact of construction traffic on the local network would be negligible.

4.31 The assessment in the main ES included the construction of the DHL unit and the associated highway works on the A5 and Mere Lane which will have been completed in advance of the start of works for the remainder of the Hybrid development.

4.32 Overall the number of construction vehicles will therefore reduce and on the assumption that the construction programme for the remainder of the Hybrid development will remain more or less as stated in the earlier versions of the ES, the expectation is that the impact of construction traffic will continue to be **negligible**.

Impact on Public Transport

4.33 In the main ES Chapter 6 it was concluded that the impact of additional construction staff on the capacity of existing bus routes would be negligible. No changes are expected as part of this addendum assessment.

Impact on Pedestrians and Cyclists

4.34 In the main ES Chapter 6 it was concluded that the construction phase traffic would have a short term major adverse impact on pedestrian and cycle amenity on the short section of Mere Lane between the A5 and the new roundabout linking the existing Magna Park to the development. During the AM and PM peaks HGV flows were expected to increase by up to 180% and 300% respectively.

4.35 This section of Mere Lane is currently subject to a 7.5 tonne weight restriction and as such the number of existing HGVs is very low. A relatively small increase in the number of HGVs therefore appears to have a very significant impact albeit the actual increase (main ES Chapter 6) was only an additional 9 HGVs in both the AM and PM peaks.

4.36 The impact of construction traffic on this short section of Mere Lane has been recalculated based on the revised Baseline Scenario flows for the impact of the remainder of the Hybrid application development. The results are shown in Table 4.3 below.

Table 4.3 Impact of the Remainder of the Hybrid Development – Construction Phase

Location	2026 Baseline		Construction		Total		% Increase	
	All Vehs	HGV	All Vehs	HGV	All Vehs	HGV	All Vehs	HGV
H (am)	372	43	19	9	391	52	5.1%	20.9%
H (pm)	290	22	19	9	309	31	6.6%	40.1%

4.37 As can be seen the impact of HGVs during the construction phase is expected to fall to 21% and 40% in the AM and PM peaks respectively.

4.38 Construction phase traffic is therefore expected to have a short term minor adverse impact on pedestrian and cyclist amenity on this section of Mere Lane during the AM peak and a short term moderate adverse impact during the PM peak.

4.39 It should however be noted that as part of the DHL Supply Chain development, the redundant section of Mere Lane between the A5 and the new access roundabout will be stopped up and reclassified as a public footpath. This will provide pedestrians and cyclists with an opportunity to travel along this section of Mere Lane on a traffic free route. This will have a minor beneficial impact for users of this facility.

4.40 Elsewhere on the local network the main ES Chapter 6 concluded that the impact of construction traffic is negligible. No changes are expected as part of this assessment of the construction traffic effects of the remainder of the Hybrid development.

Operational Effects and Mitigation

4.41 This section considers the scale and potential impact of the additional traffic that would be generated after completion of the remainder of the Hybrid development.

Impact on Local Highway Network

4.42 Car and HGV trip generation of the remainder of the Hybrid application and its distribution on the highway network surrounding the Hybrid application site have been estimated and the traffic flow diagrams are presented in Appendix A of the ATA.

4.43 Trip generation is based on traffic surveys undertaken at Magna Park during June 2013. Trip distribution is based on output from the Leicester and Leicestershire Integrated Transport Model (LLITM).

4.1 The estimated peak hour trip generation at the locations listed is summarised in Table 4.4 below. The location of the flows is shown on a plan provided in Appendix C.4 of Volume 3 of the original ES.

Table 4.4 Two-Way Traffic Flows Generated by the Remainder of the Hybrid Development – Operational Phase

Location	AM Peak		PM Peak	
	All Vehs	HGV	All Vehs	HGV
A – Hunter Boulevard	277	23	246	23
B – A4303 between Hunter Boulevard & A5	188	37	153	28
C – A5 south of A4303	143	23	141	17
D – B4027 Lutterworth Road	105	2	114	1
E – Coal Pit Lane	105	0	78	0
F – A5 north of A4303	541	61	486	46
G – A5 north of Mere Lane	468	68	407	53
H – Mere Lane east of A5	343	22	313	17
I – Mere Lane east of Magna Park	19	0	19	0
J – A4303 between Hunter Bld & Coventry Road	466	60	398	51
K – Coventry Rd between A4303 & Brookfield Way	130	0	110	0
L – A4303 between Coventry Road & A426	336	60	288	51
M – A426 Rugby Road north of A4303	53	15	40	10
N – A4303 between A426 & M1 J20	281	45	248	39
O – A4304 east of M1 J20	27	2	21	2

4.2 The impact of the traffic generated by the remainder of the Hybrid development on the Table 4.4 locations in the AM and PM peaks is presented in Table 4.5 and 4.6 below.

4.3 These tables have been compared with the corresponding tables in the main ES Chapter 6 (Tables 6-9 and 6-10) to establish whether the impact of the remainder of the Hybrid development has increased or decreased as a result of including DHL Supply Chain as part of the Baseline. The cells shaded in green indicate where the impact of the remainder of the Hybrid development has reduced and the cells shaded in red indicate where it has increased. Cells with no shading are where there has been no change.

Table 4.5: Impact of the Remainder of the Hybrid Development - Operation Phase - AM Peak

Location	2026 Baseline		Development		Total		% Increase	
	All Vehs	HGV	All Vehs	HGV	All Vehs	HGV	All Vehs	HGV
A	1,230	272	277	23	1,507	295	22.5%	8.4%
B	1,821	192	188	37	2,009	229	10.3%	19.2%
C	1,549	202	143	23	1,692	224	9.2%	10.9%
D	427	10	105	2	532	12	24.6%	20.0%
E	511	8	105	0	616	8	20.5%	0.0%
F	1,668	126	541	61	2,209	187	32.4%	48.3%
G	1,636	165	468	68	2,104	233	28.6%	41.2%
H	372	43	343	22	715	65	92.3%	51.7%
I	142	5	19	0	161	5	13.4%	0.0%
J	2,030	262	466	60	2,496	322	23.0%	22.9%
K	928	16	130	0	1.058	16	14.0%	0.0%
L	1,455	250	336	60	1,791	310	23.1%	24.0%
M	1,726	132	53	15	1,779	147	3.1%	11.4%
N	2,931	398	281	45	3,212	443	9.6%	11.3%
O	1,234	72	27	2	1,261	74	2.2%	2.8%

Table 4.6: Impact of the Remainder of the Hybrid Development - Operation Phase - PM Peak

Location	2026 Baseline		Development		Total		% Increase	
	All Vehs	HGV	All Vehs	HGV	All Vehs	HGV	All Vehs	HGV
A	928	211	246	23	1,174	234	26.5%	10.9%
B	1,659	141	153	28	1,812	169	9.2%	19.8%
C	1,334	122	141	17	1,475	139	10.6%	13.9%
D	467	5	114	1	581	6	24.4%	20.0%
E	451	10	78	0	529	10	17.3%	0.0%
F	1,587	96	486	46	2,073	142	30.6%	47.8%
G	1,443	113	407	53	1,850	166	28.2%	46.9%
H	290	22	313	17	603	39	107.8%	78.1%
I	122	3	19	0	141	3	15.6%	0.0%
J	2,048	230	398	51	2,446	281	19.4%	22.2%
K	956	11	110	0	1,066	11	11.5%	0.0%
L	1,461	221	288	51	1,749	272	19.7%	23.1%
M	1,767	46	40	10	1,807	56	2.3%	21.7%
N	2,785	291	248	39	3,033	330	8.9%	13.4%
O	1,382	62	21	2	1,403	64	1.5%	3.2%

4.4 Tables 4.5 and 4.6 indicate that in most cases the impact of the remainder of the Hybrid development has reduced when compared with the assessments for the whole of the Hybrid development in the main ES Chapter 6. The locations where the remainder of the Hybrid development is predicted to have the most significant impact are on Hunter Boulevard just north of the A4303 (location A), the A4303 between Hunter Boulevard and the A5 (location B) and the A5 between the A4303 and Mere Lane (location F).

4.5 When the main ES Chapter 6 was prepared, the baseline highway network did not include a link into the existing Magna Park from Mere Lane. The significance of providing this link is that it will allow some existing Magna Park traffic to use the new access route via Mere Lane and Argosy Way to avoid the Cross in Hand roundabout and Locations A, B and F as described above and shown on the plan in Appendix C.2 of Volume 3B of this Addendum. When the impact of the Hybrid application development was tested against the original baseline with no highway improvements, the effect of the re-routing of existing Magna Park traffic meant that the relative impact of the development related traffic at Locations A, B and F was greatly reduced.

4.6 To reflect the grant of planning permission for DHL, the associated highway improvements have become part of the Baseline Scenario. Therefore when the impact of the remainder of the Hybrid development is tested against the new Baseline, the benefits from the re-routing of existing Magna Park traffic are no longer achieved. The result is that the *relative* impact of the remainder of the Hybrid development at Locations A, B and F is significantly higher than was reported in the main ES Chapter 6.

4.7 At the other locations where the remainder of the Hybrid development is predicted to have a greater impact when compared with the assessments in the main ES Chapter 6, the increase in percentage impact ranges from 0.2% at Location O (A4304 east of M1 J20) in both peaks to 1.9% at Location L (A4303 between Coventry Road and A426) in the PM peak. These increases are considered to be negligible and no further assessment is required.

4.8 Because the remainder of the Hybrid development is expected to have a greater impact on link flows approaching the Cross in Hand and A4303/ Hunter Boulevard roundabouts when compared with the main ES Chapter 6, further analysis of driver delay has been undertaken at these junctions.

4.9 Average delay per vehicle during the AM and PM peaks at both the junctions is set out in Average delay per vehicle during the AM and PM peaks at both the junctions is set out in Tables 4.7 and 4.8 below, with and without the remainder of the Hybrid development traffic.

Table 4.7: Average Driver Delay - AM Peak

Junction		Average delay per vehicle (sec)		
		2026 Base	2026 Base + Dev	Change
1	A5/ A4303 (Cross in Hand) roundabout	4.8	6.6	+1.8
2	A4303/ Hunter Boulevard roundabout	3.6	4.2	+0.6

Table 4.8: Average Driver Delay - PM Peak

Junction		Average delay per vehicle (sec)		
		2026 Base	2026 Base + Dev	Change
1	A5/ A4303 (Cross in Hand) roundabout	3.6	4.8	+1.2
2	A4303/ Hunter Boulevard roundabout	2.4	3.0	+0.6

4.10 At the Cross in Hand roundabout, the remainder of the Hybrid development results in increased journey times of 1.8 and 1.2 seconds per vehicle during the AM and PM peak respectively. At the A4303/ Hunter Boulevard roundabout the increase in journey time is 0.6 seconds per vehicle during both peaks. Based on the significance criteria set out in Table 6-1, the impact on users of the local highway network is considered negligible.

Proposed Mitigation

4.11 As part of the Hybrid application development, IDI Gazeley is proposing junction improvements at the Gibbet Hill (A426/A5) roundabout. The scheme for the junction includes carriageway widening, improved carriageway markings and the signalisation of the approach and circulatory carriageways of all arms except Gibbet Lane. The proposed improvements are shown on a drawing presented in Appendix F of the ATA.

4.12 The scheme has been discussed with Highways England and Warwickshire County Council (WCC) and both authorities are satisfied that it provides an acceptable degree of mitigation and that the trigger for the scheme is any further warehousing on the Hybrid site beyond what has already been consented for DHL Supply Chain.

4.13 It has been agreed that IDI Gazeley will cover the full cost of the junction, and agree with Highways England and WCC a mechanism for calculating proportionate contributions that would be repaid to IDI Gazeley from other developments relying on the improvement scheme. These developments include DIRFT III, Rugby Gateway and, if consented, symmetry park.

4.14 A copy of the proposed layout is presented in the ATA. The ATA also indicates that the proposed junction improvement will result in significant performance benefits by reducing queues and delays on the critical approach arms.

4.15 The submitted Travel Plan for the Hybrid application identifies measures to encourage more sustainable means of transport, and includes targets for modal change away from single occupancy car use and a financial commitment to monitor progress towards achieving these targets. At distribution parks where large numbers of employees work fixed shift patterns, car sharing is seen as having great potential in encouraging a reduction in single car occupancy.

4.16 The Travel Plan duly focuses on the promotion of car sharing through the establishment of a car sharing scheme that will be available to all employees of the remainder of the Hybrid development (as well as DHL Supply Chain) and by encouraging cycling through the provision of covered, well-lit and secure cycle parking and the offer of interest free loans or subsidies for employees who cycle to work to purchase a bicycle.

4.17 IDI Gazeley has set up the Magna Park website in part to encourage and enable all employees to communicate to identify car sharing opportunities and other forms of transport sharing. As it evolves the website will also include information on public transport services, ticketing arrangements and links to maps showing recommended cycle and pedestrian routes.

4.18 As well as reducing the impact of the developments (the permitted DHL Supply Chain scheme and the Hybrid application development), the website also has the potential to encourage existing Magna Park employees to switch to sustainable means of transport thus reducing the impact of the whole site on the local highway network. The effectiveness of the website in providing a mechanism (amongst others, including

IDI Gazeley's proactive work with Magna Park's business) for helping to increase car-sharing and bus travel is already evident (see paragraph 4.24 above and paragraph 4.62 below).

4.19 IDI Gazeley, working with LCC's Sustainable Travel Team, has introduced a site-wide car sharing scheme operated by Liftshare. To date more than half the businesses at Magna Park have signed up to the car sharing scheme and the early indications are that is proving successful. The Liftshare scheme enables all employees to submit their names to a car sharing database with the objective of identifying individual travel patterns and making the opportunity for car sharing more visible. The introduction of a site wide scheme expands the opportunity for car sharing between employees of different businesses at Magna Park.

4.20 Part of IDI Gazeley's work with LCC to promote sustainable transport opportunities at Magna Park has included a site wide travel survey that was undertaken during March 2016 with the aim, amongst other things, of establishing where employees live and how they travel to work. This information has been plotted on a map allowing clusters of employee residence locations to be identified, and this data is being used to identify the potential for car sharing.

Impact on Public Transport

4.21 A description of the bus services currently operating in the vicinity of the Hybrid development was set out in the baseline conditions in the main ES Chapter 6. In summary, Magna Park is served by one bus per hour between 6am and 7pm operating between Hinckley and Lutterworth together with new services from Leicester and Rugby that target the main shift changeovers at 6am, 2pm and 10pm and office hours at 9am and 5pm. Six new or upgraded bus stops are provided throughout the park and as part of the consent for the DHL Supply Chain development, a new bus stop will be provided on Argosy Way.

4.22 The DHL consent also safeguards a bus service at Magna Park for a minimum of five years together with a free six month bus pass for up to 30% of DHL employees.

4.23 Observations of existing bus services indicate that there is currently ample spare capacity on the bus operating between Hinckley and Lutterworth as it passes through Magna Park. Indications are that the new service from Leicester is being well used, but due to low passenger numbers timetable for the service from Rugby is being reviewed and now only operates on a Monday to Friday basis.

4.24 The remainder of the Hybrid development is expected to employ approximately 4,800 people. The breakdown between uses is as follows:

- B1 use, Logistics Institute 666
- B8 logistics & warehousing 4,142
- Total 4,808

4.25 The Travel Plan includes a target modal split for the proportion of employees using the bus at the Proposed Development of 2.9%. Assuming a three shift system for the B8 staff, approximately 1,381 staff would be working per shift and therefore at shift

changeover times there would be approximately 40 arrivals and 40 departures by bus. Staff from the B1 uses and the Logistics Institute would generate approximately 19 arrivals in the AM peak and 19 departures in the PM peak.

4.26 Staff from the distribution warehousing, LIT, Innovation Centre and Holovis uses are likely to be arriving and departing at different times. Therefore the maximum impact on bus services will be at shift changeover times. There are currently two services serving the shift changeovers and the additional demand on the bus service is likely to increase the crowding on existing services, and therefore the remainder of the Hybrid development is expected to have a moderate adverse impact on public transport.

Proposed Mitigation

4.27 In support of the remainder of the Hybrid development further improvements to public transport will be secured. One opportunity is to enhance the existing Route 8 between Hinckley and Lutterworth with the potential of extending it to serve Nuneaton, where based on Census data and on recent surveys undertaken at Magna Park, a significant proportion of the Magna Park workforce resides.

4.28 Up to four new stops will be provided on the main spine road through the remainder of the Hybrid site, these (like those in the existing Magna Park and the extension for DHL Supply Chain) will provide shelters and seating. The stops will be positioned to ensure that all of the buildings proposed in the remainder of the Hybrid development are within 400 metres of a bus stop.

Impact on Pedestrians and Cyclists

4.29 As shown in Tables 4.6 and 4.7, the operational phase traffic generated by the remainder of the Hybrid development will result in an increase in peak hour traffic of up to 108% on the section of Mere Lane between the A5 and the new roundabout linking the existing Magna Park to the Hybrid application site. On the same section of road, HGV flows are expected to increase by up to 78%.

4.30 Because the highway works associated with the DHL Supply Chain warehouse provide an alternative route for pedestrians and cyclists along the former carriageway of Mere Lane, it is not necessary for cyclists and pedestrians to use this section, with the result that the effect on pedestrian and cycle amenity can be considered to be negligible. The increase in the level of traffic on this section of Mere Lane has the potential to affect accessibility. However pedestrians and cyclists can cross Mere Lane to the north of the roundabout (Location I) where the increase in traffic is 13.4% in the morning peak and 15.6% in the evening peak. This would not result in any extended crossing time and it can be concluded that the effect on accessibility is negligible.

Proposed Mitigation

4.31 Pedestrian and cycle facilities are incorporated into the proposals remainder of the Hybrid development including new shared footways/cycleways and safe crossing points of the main spine road through the development. Secure, covered and well-lit

cycle parking facilities will be provided at all units within the car parks of the remainder of the Hybrid development (as is the case with the DHL Supply Chain scheme).

4.32 The effects of the remainder of the Hybrid development under the 'with DHL Supply Chain' Baseline Scenario have been identified to be either negligible, minor or beneficial. This addendum to the main ES proposes, therefore, no further Mitigation for the remainder of the Hybrid development.

Residual Effects

Construction – Impact on Local Highway Network

4.33 The introduction of a Construction Environmental Management Plan (CEMP) including an access strategy for the development site will help to minimise the impact of construction traffic on all modes of transport. This will be additional to the CEMP for the DHL Supply Chain development (required by a condition to the planning permission), and the appointed contractor will be responsible for implementation of the CEMP.

4.34 The CEMP for the remainder of the Hybrid scheme will include a construction traffic routing plan (CTRP) that will direct access to the site via the A5/Mere Lane access from the west (and to the new A5 roundabout in the north once it is constructed), and confine the construction traffic to the existing Magna Park HGV Routing Plan (amended to remove the B2047 as a permissible route). The appointed contractor will be required (as is will be the case for the DHL Supply Chain CEMP) to adhere monitor and enforce the to the existing Magna Park routing plan to ensure that all HGVs use the strategic and principal road network for access.

4.35 The residual impact on the local highway network during the construction phase is therefore predicted to be of **negligible** significance.

Construction – Impact on Public Transport

4.36 The residual impact of additional construction staff on the capacity of the existing bus route is expected to be **negligible**.

Construction – Impact on Pedestrians and Cyclists

4.37 Impacts on pedestrian and cyclist amenity of the construction of the remainder of the hybrid development will be minimised through the CEMP. The residual impact is considered to be of short term moderate adverse significance on Mere Lane, and of negligible significance elsewhere.

4.38 It should however be noted that as part of the DHL Supply Chain development, the redundant section of Mere Lane between the A5 and the new access roundabout will be stopped up and reclassified as a public footpath. This will provide pedestrians and cyclists with an opportunity to travel along this section of Mere Lane on a traffic free route. This would have a minor beneficial impact for users of this facility.

Operational – Impact on Local Highway Network

4.39 The maximum increase in delay as a result of the remainder of the Hybrid development is at the Cross in Hand junction where the average delay is expected to increase by 1.8 seconds per vehicle.

4.40 Application of the Travel Plan will help to reduce the volume of traffic generated by the remainder of the Hybrid development and over time this will help to offset the impact on the surrounding highway network.

4.41 Based on the significance criteria set out in Table 4.1, the residual impact on users of the local highway network is considered to be negligible.

Operational – Impact on Public Transport

4.42 The additional demand on the bus service from the remainder of the Hybrid development is likely to increase crowding on the existing services.

4.43 Discussions are at an advanced stage with LCC and WCC on the provisions for bus services to the remainder of the Hybrid site. Although IDI Gazeley will contribute towards extending and improving bus services, no specific commitments can be made until the conclusion of the work that is underway to specify the services, including with prospective operators.

4.44 Therefore, until the service improvements are agreed, the residual impact on Public Transport will remain moderate adverse.

Operational – Impact on Pedestrians and Cyclists

4.45 Pedestrian and cycle facilities will be incorporated into the remainder of the Hybrid development, including new shared footways/cycleways and safe crossing points of the main spine road through the development. Secure, covered and well-lit cycle parking facilities will be provided at each unit within the car parks on all building parcels.

4.46 Overall, pedestrian amenity will improve with the remainder of the Hybrid development. Although there are several roads that will experience increases in HGV traffic of more than 30%, this will in part be balanced by the pedestrian and cycleway facility improvements, and the residual impact on pedestrians and cyclists is considered to be negligible.

Cumulative Effects

Other Developments Accounted

4.47 There have been no changes to the details of the cumulative schemes considered by the main ES Chapter 6, and the DHL Supply Chain development was included as part of the Hybrid application scheme.

4.48 Therefore the cumulative impacts of the remainder of the Hybrid development during the construction and operational phases remain are no different from the cumulative impact assessment (CIA) in the main ES Chapter 6. The outcome of that CIA is not repeated here.

symmetry park – Impact on Local Highway Network

4.49 Trip generation for the symmetry park development is presented in detail in the original TA dated 28 September 2015. There have been no changes to the details of the symmetry park development. Therefore the cumulative impact of that development with the Hybrid application proposals and the committed developments accounted in the CIA are unchanged from the assessment in the main ES Chapter 6.

Summary

4.50 This section of the ES Addendum presents an assessment of the effect of the remainder of the Hybrid development on the surrounding road network, allowing for the grant of planning permission for the DHL Supply Chain scheme. This addendum to the main ES Chapter 6: Traffic and Transport has been prepared on the basis that the DHL Supply Chain development forms part of the baseline conditions including the associated highway improvements on the A5, at Mere Lane and at the Whittle roundabout.

4.51 This addendum to the main ES Chapter 6 has considered the change in the following conditions on the highway network:

- driver journey time and delay;
- pedestrian and cycle journey time, delay, accessibility and amenity; and
- public transport.

4.52 With the exception of the short section of Mere Lane between the A5 and the site access where a short term moderate adverse impact on pedestrian and cyclist amenity is expected, no significant environmental effects have been identified during the construction, both with and without the identified cumulative schemes.

4.53 As part of the DHL Supply Chain scheme, the redundant section of Mere Lane between the A5 and the new access roundabout will be stopped up and reclassified as a public footpath. This will provide pedestrians and cyclists with an opportunity to travel along this section of Mere Lane on a traffic free route. This would have a minor beneficial impact for users of this facility and is taken into account in the addendum baseline.

4.54 During the operational phase of the remainder of the Hybrid development, the maximum increase in delay is at the Cross in Hand junction where the average delay is expected to increase by 1.8 seconds per vehicle. Based on the significance criteria set out in the main ES, the impact on users of the local highway network is considered negligible.

4.55 A mitigation scheme is proposed at the Gibbet Hill roundabout to offset the effects that could result from the additional traffic that would be generated by the remainder of the Hybrid development. The scheme includes carriageway widening, improved carriageway markings and the signalisation of the approach and circulatory carriageways of all arms except Gibbet Lane. The ATA indicates that the proposed

junction improvement will result in significant performance benefits by reducing queues and delays on the critical approach arms.

4.56 The remainder of the Hybrid development is expected to generate an additional 40 trips by bus during shift changeovers. The existing bus services target the shift changeover times and indications are that the service from Leicester is being well used. Therefore additional demand would lead to some crowding of the existing service. The impact on Public Transport is therefore expected to be of moderate adverse significance. However, discussions with LCC and WCC regarding improvements to the existing bus service are ongoing, and depending on the improvements agreed, the impact on Public Transport will be reduced and could potentially be beneficial to existing employees at Magna Park as well as new employees of the remainder of the Hybrid development.

4.57 Pedestrian and cycle facilities will be incorporated into the remainder of the Hybrid development including new footways/cycleways on the main spine road through the development. Secure, covered and well-lit cycle parking facilities will be provided within the car parks of all units.

4.58 Overall, pedestrian amenity will improve. Although the A5 to the north of the Cross in Hand roundabout will experience increases in HGV traffic of more than 30% this will in part be balanced by the proposed pedestrian and cycleway facility improvements, and the residual impact on pedestrians and cyclists is considered to be negligible.

4.59 Consideration of the effects when the permitted cumulative schemes are included remains unchanged as assessed in the main ES Chapter 6

4.60 A sensitivity test was undertaken to assess the potential impact of the proposed development at symmetry park. There have been no changes to the details of the symmetry park development and therefore the cumulative impacts with the Hybrid application development (incorporating the DHL Supply Chain scheme) during the construction and operational phases remain unchanged as assessed in the main ES Chapter 6.

4.61 Table 4.10 below provides a summary of the likely significant effects of the remainder of the Hybrid development after accounting for the permitted DHL Supply Chain scheme.

Table 4.10: Table of Significance – Traffic and Transport

Potential Effect	Nature of Effect (Permanent/Temporary)	Significance (Major/Moderate/Minor) (Beneficial/Adverse/Negligible)	Mitigation / Enhancement Measures	Geographical Importance*							Residual Effects (Major/Moderate/Minor) (Beneficial/Adverse/Negligible)
				I	UK	E	R	C	B	L	
Construction											
Local highway network	Temporary	Negligible	CEMP to include commitment to appropriate routing arrangements and working hours and the production of an outline traffic management plan (paragraph 4.81).							✓	Negligible
Pedestrian & cyclist amenity – Mere Lane	Temporary	Moderate Adverse								✓	Major Adverse
Pedestrian & cyclist amenity – all other sections of the local highway network	Temporary	Negligible								✓	Negligible
Public Transport	Temporary	Negligible								✓	Negligible
Completed Development											
Local highway network	Permanent	Negligible	Improvement scheme at Gibbet Hill roundabout							✓	Negligible
Pedestrian & cyclist amenity – Mere Lane	Permanent	Moderate Adverse	Stopping up and creation of new pedestrian/cyclist only route							✓	Major Beneficial

Pedestrian & cyclist amenity – A5, A4303 & A426	Permanent	Minor adverse	New pedestrian routes and road crossing facilities to link existing Magna Park to Proposed Development.							✓	Negligible
Pedestrian & cyclist amenity – all other sections of the local highway network	Permanent	Negligible								✓	Negligible
Public Transport	Permanent	Moderate Adverse ☐	Discussions with LCC and WCC regarding bus services to serve the remainder of the Hybrid development site are ongoing. However, no firm commitment to specific service improvements can be made until to the work underway is concluded. Once it is, it is expect that the major adverse impact judgment will be revised, with the object of changing it to beneficial (rather than negligible or neutral).							✓	Major Adverse ☐
Cumulative Effects											
Construction											
Local highway network	Permanent	Negligible								✓	Negligible
Pedestrian & cyclist amenity	Permanent	Negligible								✓	Negligible
Public Transport	Permanent	Negligible								✓	Negligible
Operation											
Local highway network – M69 J1	Permanent	Minor adverse								✓	Minor adverse

All other sections of the local highway network	Permanent	Negligible								✓	Negligible
Pedestrian & cyclist amenity – Coal Pit Lane	Permanent	Minor adverse								✓	Minor adverse
Pedestrian & cyclist amenity – all other sections of the local highway network	Permanent	Negligible								✓	Negligible
Public Transport	Permanent	Negligible								✓	Negligible
Symmetry park development effects											
Local highway network	Permanent	Negligible								✓	Negligible
Pedestrian & cyclist amenity – A4303	Permanent	Minor adverse								✓	Minor adverse
Pedestrian & cyclist amenity – all other sections of the local highway network	Permanent	Negligible								✓	Negligible
Public Transport	Permanent	Minor adverse								✓	Minor adverse

*** Geographical Level of Importance**

I = International; UK = United Kingdom; E = England; R = Regional; C = County; B = Borough; L = Local

5 ADDENDUM TO ES CHAPTER 7: NOISE AND VIBRATION

Introduction

5.1 This section of the Addendum, as was the main ES Chapter 7: Noise and Vibration, has been prepared by Cole Jarman, Consultants in Acoustics. This section considers the noise and vibration effects of the remainder of the Hybrid development assuming that the DHL Supply Chain application is built, including all required mitigation, and is operational. This assessment considers operational activity noise, road traffic noise, and construction noise upon existing residential receivers due to the remainder of the Hybrid planning application.

5.2 This section should be read in conjunction with the main ES Chapter 7 and its appendices (Technical Appendices D) which include technical details of the noise survey, assessment methodology and assessment conclusions. It should also be read in conjunction with the Volume 3 of the ES Addendum, Technical Appendices D4A and D5A.

Policy and Guidance

5.3 We are not aware of any changes in policy and guidance which would have a bearing on the conclusions of the noise impact assessment and the ES chapter relating to noise and vibration. On this basis the statements in the main ES Chapter 7 are considered to remain valid and appropriate.

Assessment Method

5.4 The dates of the assessment have been updated to reflect the expected opening year of the proposed development (2019). The addendum to account for the DHL Supply Chain development requires no change to any other of the assessment methods outlined in Chapter 7 of the main ES.

Road Traffic Noise Assessment for Existing Sensitivities

5.5 When assessing potential noise effects due to changes in road traffic flows as a result of a development, it is appropriate to refer to the Design Manual for Roads and Bridges (DMRB). The Manual sets out noise assessment procedures to be followed when undertaking highway works such as building new roads.

5.6 Regarding changes in road traffic due to the proposed development, the DMRB provides useful guidance for assessing changes in road traffic noise due to variations in the flow rate and vehicle composition of the traffic.

5.7 DMRB sets out thresholds at which potential effects may start to become apparent, based on changes in 18-hour daytime noise levels (0600-2400h). The threshold is a change of 1 dB(A) when assessing short term effects (i.e. comparing with- and without-development flows for the year of opening of a road scheme) and 3 dB(A) when assessing long term effects (i.e. comparing with-development flows in a future year and without-development flows in the year of opening - the future year can normally be considered to be the year during which the greatest traffic flows will occur within 15 years of opening).

5.8 In general, calculations are carried out of Basic Noise Levels for the various scenarios, using the methodology set out in the Department for Transport document Calculation of Road Traffic Noise (CRTN).

5.9 The calculations are based on traffic flow data supplied by IDI Gazeley's transport consultant AECOM and take account of the percentage made up of HGVs and the stated speed limit for the road, or where available the actual speeds provided by the transport consultant. The resultant noise level figure is the $L_{A10,\ 18\ hour}$, 18 hour (dB).

5.10 For developments such as those being considered in this ES, where complex or significant road traffic noise effects due to highway works are not expected, it is appropriate to undertake the assessment in terms of changes in the Basic Noise Level defined at 10m from the edge of the carriageway in CRTN. This does not relate directly to the noise exposure at individual residential façades but is a reference noise level, comparison of which in various scenarios provides a good indication of the noise level changes that are expected to occur along an existing road link where the road itself is the dominant road traffic noise source.

5.11 On roads where 18-hour traffic flows (0600-2400h) are lower than 1000 vehicles per day this falls outside the scope of CRTN. On roads where this is the case it is not valid or appropriate to use the same procedures to calculate resultant noise levels. It is relevant to consider any changes in noise levels in the context of absolute noise levels in these instances. In all cases however, the 18-hour traffic flows assessed here are greater than 1000 vehicles per day.

5.12 The DMRB also sets out thresholds for night time noise. These are identical to the daytime thresholds described above but with an additional lower threshold in terms of absolute noise level, below which effects are deemed to be negligible and therefore no further assessment is required. The absolute noise level threshold is 55 dBA L_{night} (which is actually a $L_{Aeq,\ 8\ hour}$ value and corresponds to the Interim Target in the WHO Night Noise Guidelines). The method of calculation of Lnight from traffic flow data can be found in a DEFRA document published for that purpose. Its calculation is based entirely on the daytime LA10, 18 hour derived in accordance with CRTN. If a night noise assessment were to be undertaken on this basis, any changes in night time noise level will be identical to changes in daytime noise level.

5.13 Arguably, if a night time noise level of 55 dBA is deemed acceptable then a daytime noise level of the same magnitude would clearly also be acceptable. However, it could also be argued that the Lnight lower threshold of 55 dBA could be reduced to 40 dBA to correspond to the night noise guideline value in the WHO document. Taking the WHO night noise guideline (NNG), interim target (IT) and guidance on daytime noise levels into account, as well as DMRB, we propose that if absolute noise level thresholds were to be used (below which effects are deemed to be negligible) they could be set at 40 dBA during the night and 50 dBA during the day. These levels correspond with those set out in the WHO Guidelines for Community Noise. It is worth noting at this point that the more recent Night Noise Guidelines are not intended to replace the earlier Guidelines for Community Noise but to be referred to alongside them. Neither document forms part of any statutory requirement in the UK.

5.14 In summary, on the basis set out in the above paragraphs, it is appropriate in this case to undertake the assessment purely in terms of changes in Basic Noise Level $L_{A10,\ 18\ hour}$.

5.15 Traffic flows were developed by the traffic consultants, AECOM. The assessment of predicted noise level changes due to traffic flow changes on the local road network is undertaken on the basis shown below where 2019 is understood to be the proposed year of initial works, with 2034 being the expected worst case assessment year within 15 years of this.

Do Minimum - predicted baseline flows including committed development only
Do Something - predicted baseline flows including committed development and the proposed development

5.16 An additional sensitivity check has been undertaken to account for the cumulative impact with symmetry park which, though not a committed development, has been included in a second 2034 Do Something scenario to give a worst case representation should both the Hybrid application and the symmetry park application be permitted.

5.17 The assessment is undertaken for both the 'Do-Minimum' and 'Do-Something' scenarios described in paragraph 7.3.24. The results are set out in the attached Technical Appendix D.5. The Do Minimum (Do Min) and Do Something (Do Som) scenarios are compared, and the impact of the proposed development assessed, as follows:

- 2019 Do Minimum vs 2019 Do Something
- 2019 Do Minimum vs 2034 Do Something
- 2019 Do Minimum vs 2034 Do Something including Symmetry Park
- 2034 Do Minimum vs 2034 Do Something
- 2034 Do Minimum vs 2034 Do Something including Symmetry Park.

5.18 The proposed assessment criteria for the impact of road traffic upon existing sensitivities are presented in the Table 5.1. The presentation of changes in sound level to one decimal place in the Table is not a reflection of the accuracy of any assessment undertaken, but rather serves to provide a clear threshold between adjacent impact descriptions.

5.19 It is also important to note that where noise impacts are concerned, any identified to be of major significance are not necessarily impacts that have effects of greater than local scale. Indeed, where developments of this type are concerned, any noise impacts are likely to be important on a local scale only.

5.20 In this case, as set out in the ES Addendum Volume 3B.3, Appendix D.5, the noise change for each assessment location did not exceed 2.9 dB. As a result, it was not necessary to refer to the absolute noise levels in column one of the table when establishing the noise impact magnitude.

Table 5.1 Road Traffic Noise Assessment Criteria

Free Field Absolute Noise Level, dB	**Change in Noise Level $L_{A10,18h}$ or $LA_{eq,16h}$**	**Magnitude of noise impact in short term**	**Magnitude of noise impact in long term**
$L_{Aeq,16h}$ < 50	0.0	No Change	No Change
	0.1 to 0.9	Negligible	Negligible
	1.0 to 2.9	Minor	Negligible

Free Field Absolute Noise Level, dB	Change in Noise Level $L_{A10,18h}$ or $LA_{eq,16h}$	Magnitude of noise impact in short term	Magnitude of noise impact in long term
	≥ 3.0	Minor	Minor
50 ≤ $L_{Aeq,16h}$ < 55	0.0	No Change	No Change
	0.1 to 0.9	Negligible	Negligible
	1.0 to 2.9	Minor	Negligible
	3.0 to 4.9	Moderate	Minor
	≥ 5.0	Moderate	Moderate
$L_{Aeq,16h}$ ≥ 55	0.0	No Change	No Change
	0.1 to 0.9	Negligible	Negligible
	1.0 to 2.9	Minor	Negligible
	3.0 to 4.9	Moderate	Minor
	5.0 to 9.9	Major	Moderate
	≥ 10.0	Major	Major

5.21 The DHL Supply Chain development includes works at the junction of Mere Lane and the A5 roadway, a new roundabout junction with Mere Lane/A5 and additional dualling. The Hybrid application provides for a second roundabout junction on the A5 at the northern end of the application site. This further roundabout is the only additional works to the public highway over and above the DHL Supply Chain scheme (which also delivers the improvement scheme to the A426/A4303 junction), save for the full signalisation of the Gibbet Hill A5/A426 junction.

5.22 The nearest dwellings, within the village of Willey to the south western roundabout, are approximately 650m from the junction works and 450m from the A5 improvement works at the nearest point. The nearest dwellings to the north western roundabout are dwellings at White House Farm at a distance of approximately 250m.

5.23 In addition to the assessments described based on traffic flow changes, an indicative assessment has been carried out against the Noise Insulation Regulations. The Regulations provide certain rights to insulation against increased traffic noise at or above a specified level from new highways, as affecting existing dwellings.

5.24 It should be noted that at this stage the Zone 1 development application is in outline only. It is therefore not appropriate at this stage to undertake a full assessment against the Noise Insulation Regulations. However, it is useful to carry out an indicative assessment based on the information currently available.

5.25 The assessment, set out in the ES Addendum Volume 3B.3, Appendix D.1: Noise Impact Assessment, indicates that existing residences in the vicinity of the proposed link road are not likely to be eligible for attenuation packages under the Noise Insulation Regulations.

5.26 There are no proposed realignments to the national road network as part of the Zone 2 application.

Baseline Conditions for Zone 1 and Zone 2

5.27 A noise survey has been undertaken to quantify the baseline exposure levels around the proposed development site. The methodology and results of the survey are set out in detail

in the main ES Technical Appendices D.2A and D2B to ES Chapter 7. This survey and its conclusions are considered to remain valid for the applicant site.

Construction Effects and Mitigation

5.28 There are no changes to the expected Construction Effects and Mitigation measures outlined within Chapter 7 of the original ES.

Operational Effects and Mitigation

5.29 The proposed development has the potential to give rise to the following effects:

- Road Traffic Noise on existing sensitivities
- Operational Activity Noise on proposed sensitivities.

5.30 The following section sets out the potential effects due to road traffic noise on existing sensitivities.

5.31 The conclusion of the detailed DHL Supply Chain operational noise impact assessment was 'Negligible' and 'Not Significant'. The conclusion of the outline application noise impact assessment to which this addendum applies was also 'Negligible' and 'Not Significant'. The outline application assessment included the 'DHL Supply Chain' development under the reference 'Unit G'.

5.32 Given this, and taking into account also the distance between that development and the noise sensitive receivers in comparison to the remainder of the Hybrid application site, there are no expected changes to the assessment of the operational activity noise as set out in Chapter 7 of the original ES.

Potential Impacts/Issues

5.33 Following the approval of the DHL Supply Chain application, the proposed development has the potential to give rise to the following variation in operational noise impacts from those set out in the main ES Chapter 7:

- Increases in noise level due to vehicles on existing public highways such as Mere Lane, A4303 and A5 roadways.

5.34 The calculated impacts have the potential to vary as the movements associated with the DHL Supply Chain development are now added to the committed development movements

5.35 The above listed impacts could potentially occur throughout the operational life of the development. The impacts are therefore considered in both the short term and long term.

5.36 The magnitude of the potential impacts upon the nearest and most exposed noise sensitive receptors would be limited due to the distances involved and the fact that the introduced noise sources do not have a different character to those already in the area.

Significance of Predicted Effects

5.37 An assessment has been undertaken of the impact changes, as set out within this chapter and the attached technical appendices.

5.38 An assessment of road traffic noise due to the proposed Zone 1 and Zone 2 developments has been undertaken as set out within the main ES, Technical Appendix D.5A. An additional sensitivity check has been undertaken considering the impact of symmetry park, a proposed but not committed further distribution park to the south of Magna Park. This assessment has shown that the impact in both short and long term of road traffic associated with the proposed development would be limited to one of negligible magnitude in all cases.

5.39 Based on the assessed magnitude of impact, it is considered that the noise impacts due to the road traffic associated with the remainder of the Hybrid development upon existing noise sensitivities is not significant. The noise sources are all similar to that of the existing noise climate.

Proposed Mitigation

5.40 The noise impact from road traffic associated with this development is assessed as having a negligible magnitude for Zone 1 and Zone 2 in the worst case. The impacts are considered not significant due to the type of noise source being equivalent to the existing noise climate and the magnitude being considered negligible.

Residual Effects

5.41 An assessment of road traffic noise due to the proposed development has been undertaken as set out within Technical Appendix D.5A. This assessment has shown that the impact in both short and long term of road traffic associated with the proposed development would be limited to one of negligible magnitude and not significant.

Cumulative Effects

5.42 The operational noise assessment considers operational activities on site while measures have set to ensure that noise from fixed plant items does not increase the magnitude of the impact at any of the receptors. Plant noise and operational noise limits set for the overall development area include the DHL Supply Chain unit and therefore the approval of this development will not increase the noise impact at the nearest noise sensitive receivers. The assessment of road traffic noise considers the changes expected due to this development.

5.43 The road traffic noise assessment shows a negligible impact which is not significant. The distance from the proposed site to the nearest and most exposed dwelling which is on a relevant road corridor is greater than 1.5 km.

Effects of Other Committed Development

5.44 The road traffic noise assessment undertaken includes the effect of known committed development in the area and has been updated in this addendum to include the recently permitted DHL Supply Chain.

5.45 This assessment has shown that the cumulative effect of road traffic changes due to this and the other committed developments would result in an impact of negligible magnitude and significance along each road corridor.

Summary

5.46 This chapter has been prepared by Cole Jarman as an addendum to the main ES Chapter 7 which examined the potential noise effects of the Hybrid development on existing noise sensitive locations.

5.47 The assessment has been updated to examine the effects on existing noise sensitivities arising from Road Traffic noise when the recently permitted DHL Supply Chain is included in the committed development figures.

5.48 Changes in road traffic noise due to the development and operation of these units have been found to be Negligible and Not Significant in both the Short Term and Long Term cases.

5.49 Table 5.2 summarises the expected effects and associated significance upon existing noise sensitive locations, taking account of any mitigation.

Table 5.2 Summary of residual effects and their significance, assuming DHL Supply Chain is operational

Noise Source	Residual Effect	Effect Significance	Duration
Zone 1 Outline Application			
Operational Noise	No Change		
Road Traffic	Negligible	Not Significant	Short Term
Road Traffic	Negligible	Not Significant	Long Term
Construction	No Change		
Zone 2 Detailed Application			
Operational Noise	No Change		
Road Traffic	Negligible	Not Significant	Short Term
Road Traffic	Negligible	Not Significant	Long Term
Construction	No Change		

6 ADDENDUM TO CHAPTER 9: LANDSCAPE AND VISUAL EFFECTS

Introduction

6.1 This section of the Addendum sets out the changes to the judgments set out in the main ES Chapter 9: Landscape and Visual Effects that follow from the amended baseline when account is taken of the planning permission for the DHL Supply Chain share of the Hybrid application site. This section, as was Chapter 9 of the main ES, has been prepared by Nicholas Pearson Associates.

6.2 This section should be read alongside the verified visual montages (VVM) that are provided in ES Addendum Volume 3A. These illustrate the amended baseline conditions assuming the DHL Supply Chain scheme, together with its mitigation planting (at year 1), is built as permitted. The relevant references to the addendum VVM are provided in the text which follows here.[4]

Scope and Method

6.3 The scope of and baseline for this addendum have been agreed with The Landscape Partnership, the advisors to HDC on landscape and visual impact issues as follows:

Key assumptions

- The revised baseline is the permitted DHL Supply Chain building and its associated infrastructure, assuming it is built as permitted with all mitigation planting in place at year 1 of its establishment at the point that the construction of the remainder of the Hybrid application begins.
- The residual impact at the end of the operation stage would assume all of the remaining hybrid development built out with mitigation planting combined from both schemes, all shown at 10 years maturation, on montages, on the basis that the hybrid application parcels would be built out straight after the DHL scheme with no period of time elapsing between.

Methodology

- The addendum adopts the same methodology employed for the main ES Chapter 9 and goes through the same processes.

Further information

6.4 This addendum does not take into account the effects of the phasing of the mitigation planting proposed for the remainder of the Hybrid application. That phasing is set out in the Outline Masterplan Planting Phasing Plan which is submitted in the separate Clarifications and Supplementary Information to the main ES Chapter 9, 1 November 2016. The Phasing Plan brings forward the planting mitigation along the A5 and closest to the White House Farm.

[4] Clarifications and Supplemental Information to ES Chapter 9, 1 November 2016.

Structure of the Addendum

6.5 The addendum is structured in the same way as the main ES Chapter 9 –assessment of landscape effects and visual effects.

Landscape Effects

The Landscape Baseline Conditions

6.6 The main implications of the DHL Supply Chain scheme for the landscape baseline are:

- the consequences of a reduction in the size, scale and extent of the remainder of the Hybrid scheme;
- the need for landscape value and susceptibility judgments to account for the presence of the DHL Supply Chain scheme;
- the need to take account of the change in the nature of the landscape with the presence of the DHL Supply Chain building and infrastructure – including all components to the north west and south east of Mere Lane, the associated A5 widening and the Mere Lane improvement works and all associated infrastructure;
- the direct physical and operational presence of the DHL Supply Chain scheme within the part of the Lutterworth Lowlands landscape character area to the south east of Mere Lane and within the Upper Soar, low lying clay vales farmland landscape type to the north west of Mere Lane;
- the fact that the DHL Supply Chain building is, within the Hybrid application, the largest and tallest single building that also occupies the highest elevation (in addition to the fact – see Table 2.1 in Section 2 of this Addendum – that the DHL Supply Chain parcel accounts for approximately one quarter of the Hybrid distribution building parcels (i.e., 21.86 ha out of the 82.24 ha of the Hybrid site that is given to distribution warehousing);[5] and
- the influence of the built DHL Supply Chain scheme on the surrounding landscape and visual setting in the locality, including the fact that it will form part of the local landscape context to the Soar tributary flay floodplains and terraces landscape type to the north and north west and part of the High Cross Plateau-open plateau to the west of the A5 alongside Zone 1 of the Hybrid application site.

The Landscape Effects

Landscape sensitivity – Zone 1 of the Hybrid site

6.7 The sensitivity of the Lutterworth lowlands landscape receptor to the south east of Mere Lane is not considered to reduce below the assessment in the main ES, despite the presence of a new access road link to Argosy Way.

[5] The 82.24 ha for distribution warehousing in turn accounts for just over one-third (35.7%) of the whole 230.83 ha Hybrid application site. Once the DHL Supply Chain site (55.41 ha) is accounted, the distribution warehousing parcels (60.38 ha) account for 34.4% of the remainder of the 175.42 ha Hybrid application site. See Figure 2.1 and Table 2.1 in Section 2 of this Addendum, together with Plans 1 and 2 in ES Addendum Volume 3B.

6.8 The value of the landscape with the planting introduced by the DHL Supply Chain scheme and the conserved components is considered to be at the same level of 'low'.

6.9 The susceptibility of this area to receiving traffic from the remaining Hybrid scheme is, however, considered to reduce to 'very low' from 'low'**.** The overall 'low' sensitivity judgment made in the main ES is considered to remain the same as positive landscape components are still retained in this area.

6.10 The susceptibility of the low lying clay vales farmland is considered to reduce, to 'low to medium' from 'medium', but to have the same landscape value overall. The reduced susceptibility is the consequence of the change to the context of this landscape receptor. The large scale DHL Supply Chain building and the associated activity will extend to the land to the north west of Mere Lane and reinforce the context of the existing logistics park and the A5, changes that will be the most apparent in the southern parts of this landscape receptor where the land is in closest proximity.

6.11 However, this reduced susceptibility is not judged to be sufficient to justify a change to the overall 'medium' sensitivity judgment reached in the main ES. This judgements has taken account of the scale, susceptibility and value of the remainder of the clay vales farmland, which would still be impacted by the remainder of the Hybrid application.

6.12 The landscape sensitivity of the Soar tributary flat floodplains and terrace landscape receptor is also judged to be unchanged. The landscape features and their condition within this area would be unaffected by the DHL Supply Chain scheme. Similarly, the susceptibility of this receptor is also considered not appreciably to change. Further, some substantial parts of the tributary valley within the Hybrid application site and outside it, would have no or very limited intervisibility with the new DHL building and its associated infrastructure.

Landscape sensitivity – Elsewhere, alongside Zone 1 of the Hybrid site and in Zone 2

6.13 Finally, there is no basis for changing the judgments of the main ES on the sensitivity of the Lutterworth Lowlands landscape (in zone 2 of the application site), to the south of Magna Park as the grant of the DHL supply chain scheme would have no consequence for this area. Judgments regarding the sensitivity of the High Cross Plateau- Open plateau landscape receptors to the west of the A5 are also not considered to change given that there is either no intervisibility or very limited influence on this area from the presence of DHL scheme.

Landscape effects – Construction

6.14 Broadly, because the DHL Supply Chain scheme will have already been built out, the impacts of the remainder of the Hybrid scheme that result from vegetation clearance, earthworks, building operations (including the use of tower cranes) and from road and landscape infrastructure installation is considered to reduce from the judgments in the main ES as follows:

i. the overall magnitude of the effect will reduce at a site level to 'very low' from 'low' on the Lutterworth Lowlands landscape receptor in Zone 1 south east of Mere Lane;

ii. there will be a reduction in the level of indirect landscape effects, reducing to 'medium' from 'high to medium' on the locality in the Upper Soar low lying clay vale farmland and gentle ridges landscape type in Zone 1 of the application site,

iii. there will be a reduction in the magnitude of indirect landscape effects on the Soar tributary flat floodplains landscape type in the Upper Soar; and

iv. the magnitude of the effects on the High Cross plateau to the west of the A5 would also reduce but to a lesser degree.

6.15 The justification for these judgments is as follows for each of these landscape receptors:

i. The Lutterworth lowlands landscape receptor

6.16 The change from 'low' to 'very low' of the magnitude of the effect at a site level is on the basis that the following will already have been carried out to deliver the DHL Supply Chain scheme (the details are provided in Appendix F.6, Hayden's drawings 4902-D-1 to 4902-D-4 and report at A048, of the main ES):

- the removal of the two parts of an area of some establishing oak, hazel, cherry, hawthorn, hazel and ash woodland to make way for the extension of Argosy Way across Mere Lane and in a small area affected by the A5 widening works;
- the removal of some hawthorn scrub (Category C2) to make way for the two new bio discs (also permitted by application 16/00359/FUL);
- the removal of a group of crack willow trees (Category B3);
- the removal of an area of recently planted native hedgerow located behind a wide grass verge on the edge of the A5 to accommodate the A5 widening works; and
- the removal of an area of semi-improved grassland to allow for the earthworks for the road.

6.17 The construction effects remaining for the Hybrid application will arise only from the construction traffic using the road line.

6.18 The consequence is a change of judgment from the main ES to 'minor to negligible adverse' from 'minor'. As for the main ES, these effects are considered to be not significant.

ii. The low lying clay vales and gentle ridges landscape receptor (in part of Zone 1 to the north west of Mere Lane)

6.19 The reduction in effects from the construction of the remainder of the Hybrid scheme are attributable to the fact that all of the following will already have occurred with the delivery of the DHL Supply Chain scheme:

- the removal of the section of hedgerow that follows the line of an historic boundary and appears to be of a significant age along part of the north-west boundary
- The removal of what appears to be younger hedgerows, planted on the former historic field boundary lines (Including part of Refs, H023 H017, H004 and H046). These lengths of hedgerow include a native hedgerow that is located in the centre of the two fields comprising the main part of the Site, a section of hedgerow to the north-west of

the main part of the site and short sections of hedgerow where the site access road is being created and to the west of the A5, where a new roundabout is being created.

- The removal of some more recently planted hedgerow or hedgerows that do not follow historic hedge lines including: a section of hedgerow to the north-west; short or partial sections of hedgerow by the farm access drive where it meets Mere Lane; and on the eastern edge of the A5 alongside Emmanuel and Lodge Cottages.
- the removal of areas of trees (primarily category C) in some areas to make way for the widening of the A5 and new building, for the construction of the new Mere Lane roundabout junction, to accommodate earthworks for the construction of the car park and associated access road to make way for a new planted bank to the west of the proposed service yards (note that the development will deliver a net gain of some 10,000 trees);[6] and
- six areas of trees where some trees need to be removed (but are suitable for transplanting).[7]

6.20 At a site level, the size and scale of effect is considered to remain as high. The scale of the works and the impact on landform from earthworks operations, in particular, would still be marked across the area of the remaining Hybrid site, despite the lower degree of vegetation clearance and a built footprint reduced by one quarter.

6.21 With the exclusion from the Hybrid scheme of the building works for the DHL Supply Chain development (including associated tower cranes), the size and scale of construction effects on a 2km locality are considered to reduce for the remainder of the Hybrid scheme.

6.22 Indirect effects on the Upper Soar locality off-site particularly to the north east, including on the edge of Ullesthorpe, are considered to reduce notably. Effects are also anticipated to reduce elsewhere in the wider scene, absent the construction of DHL Supply Chain, the tallest of the Hybrid application buildings and on the most elevated part of the site.

6.23 Therefore, the size and scale of effects on the Soar low lying clay vale farmland and gentle ridges in the locality is anticipated to reduce from ‘high to medium’ to ‘medium’. There would also be a small reduction in the amount of the district Upper Soar LCA impacted by the construction phase works.

6.24 These changes are considered as a consequence to result in a reduction in the magnitude of effect on the 2km locality from ‘high to medium’ to ‘medium’.

6.25 Overall, these effects are not considered to alter the judgments reached by the main ES Chapter 9 on the level of effect and significance of the impacts at a site level, on the locality, on the district Upper Soar LCA and on the low lying clay vale farmland overall (moderate adverse).

[6] The details of the trees to be removed are provided in Appendix F to the main ES for the DHL Supply Chain scheme.

[7] As for Footnote 7.

iii. The Soar tributary flat floodplains and terrace landscape receptor (in part of Zone 1 of the application site)

6.26 The reduction in the magnitude of the effect on the Soar tributary flat floodplains landscape receptor in Zone 1 is judged to be insufficient to justify a change to the judgments in the main ES.

6.27 This is because only small parts of the Soar tributary flat floodplains and terrace landscape receptor would be affected by the reduction in the size and scale of indirect effects from the DHL Supply Chain construction works. Apart from the short term effects (e.g., fewer tower cranes), the large part of the valley bottom has no intervisibility with the construction works for the DHL Supply Chain scheme. Therefore, in many parts of the Soar tributary flat floodplains and terrace the direct and indirect effects during construction are judged to remain as set out in the main ES.

6.28 The effects here are therefore considered to remain as moderate to minor adverse and not significant, overall.

iv. The High Cross Open Plateau landscape receptor (in Zones 1 and 2 of the application site)

6.29 Only very slight changes to the construction stage magnitude or levels of effect as previously assessed are anticipated on the High Cross Plateau, to the west of the A5, alongside Zone 1 of the application site, to the south of Magna Park.

6.30 Whilst there is some limited intervisibility with the DHL Supply Chain scheme (principally with the A5 widening works and tower cranes used in the construction of the DHL building), this is not considered enough to warrant a change in the main ES Chapter 9 magnitude judgments, particularly given the scale and geographic extent of the other remaining hybrid scheme construction works. Also, no change in the previous judgments regarding the magnitude or level of effect is anticipated on the High Cross Plateau alongside Zone 2 of the application site as there are no impacts arising from the DHL supply chain scheme.

Landscape Effects - Operation

6.31 During operation, with the DHL development (including its associated infrastructure and mitigation) treated as built and therefore as part of the baseline (see paragraph 6.5 above), the remainder of the Hybrid application would have reduced impacts on:

i. the Lutterworth Lowlands landscape receptor Zone 1 to south east of Mere Lane, where the magnitude of direct effects arising from the remaining hybrid scheme in isolation would reduce;

ii. the Upper Soar low lying clay vale farmland and gentle ridges landscape type (in Zone 1 of the application site), where the magnitude of direct effects would be reduced and there would also be a reduction in the level of indirect landscape effects on the locality;

iii. on the Soar tributary flat floodplains landscape type in the Upper Soar (within Zone 1 area of the application site), where there would be a reduction in the magnitude of indirect landscape effects; and

iv. on the High Cross Plateau to the west of the A5, where the magnitude of effects would reduce but only to small degree.

6.32 The justification for these judgments is set out below for each of these landscape receptors.

i. The Lutterworth lowlands landscape receptor (in part of Zone 1 of the application site, to the south east of Mere Lane)

6.33 The magnitude of effect is judged to remain low at a site level and not to change the level of effect assessed in the main ES. This is on the basis that the size and scale of effects would be limited to the operational traffic moving along an existing, already lit, road link to Argosy Way.

6.34 The operational traffic effects (partly replacing construction traffic) arising from the use of the new road by the rest of the Hybrid operations would persist from the short term onwards, but would remain low in line with the judgment in the main ES. There would be no other positive or adverse effects arising from the remainder of the Hybrid application. The geographic extent of the effects would also continue to be very low.

6.35 The overall magnitude of effect is therefore judged to be low at a site level. The other judgments remain as set out in the main ES.

6.36 Overall, and the judgment is that the effects would remain as minor adverse on the site, with negligible effects on the locality and at the scale of the district landscape character area (LCA).

6.37 These effects are judged to continue to be not significant.

ii. The low lying clay vales and gentle ridges landscape receptor (part of Zone 1 - north west of Mere Lane)

6.38 During operation, the magnitude of effect arising from the remaining hybrid scheme on the low lying clay vales landscape receptor (in Zone 1 of the application site) is considered to reduce from 'high' to 'medium to high' at a site level in the short term, reducing to 'medium' by the mid-term. Even with these reductions, however, it is judged there will be no change in the assessment of the level of effect in the main ES ('moderate' reducing to 'minor to moderate adverse' overall and not significant).

6.39 The remainder of the Hybrid scheme would still result in some large scale change and permanent alteration to the landform alongside the A5 and would introduce new features in the landscape.

6.40 Nonetheless, valued features within this part of the site are retained, conserved and would be enhanced from their degraded state over time with some beneficial consequences (see also Section 8 paragraph 8.29 of this Addendum):[8]

[8] The Hybrid application Zone 1 site, though in outline, is seeking planning permission for the extent, siting and use of each parcel (the parcels together cover the whole of the site), the maximum quantum of development and height of buildings in each parcel that contains buildings, and the siting of yards in the parcels with distribution warehouse buildings, as well as means of access. These details, therefore, are undertakings, and are not 'assumptions' made so as to inform the Environmental Statement.

- a large part of the low lying clay vales and the main gentle ridge and locally valued parts of the application site are conserved and safeguarded in perpetuity through the creation of meadow land (removing land from damaging ploughing operations), a Country Park and by an accompanying associated landscape, recreation and ecological management plan; and
- extensive new tree planting, habitat creation and an extended network of permanent circular routes for pedestrians and horse riders.

6.41 These positive scheme measures will moderate the identified adverse impacts on landscape character in many cases from the short term onwards and the effectiveness of new planting would increase over time.

6.42 The design and arrangement of buildings also responds positively to the context, using façade colouring to reduce the effects of large buildings and concentrating roads and activity near and alongside the busy A5 corridor where there is already lower levels of day and night time tranquillity.

6.43 These considerations explain the judgment that the size and scale of effect of the remainder of the Hybrid application in the short term, at a site level, is reduced from 'high' to 'medium to high'. In the medium term, the judgment of 'medium' magnitude remains as it is in the main ES.

6.44 The operation of the DHL Supply Chain scheme is also judged to reduce the effect of the remainder of the Hybrid scheme on the locality – but not so substantially as to justify a change in the judgments in the main ES on the size and scale of effect, at this level. Nor is it so substantial as to affect the assessed impact on the wider district LCA.

6.45 The operation of the remainder of the Hybrid scheme will continue to affect a 1-1.5 km locality, although would affect a slightly reduced extent of the district Upper Soar LCA. The duration of effect also remains the same as assessed in the main ES.

6.46 The overall magnitude of effect, taking account of the reduction in scale of the development, is judged to reduce from 'high' to 'medium to high' on the site, in the early years and would continue to reduce to a medium by the mid-term when planting matures and contributes more positively to the new character of parts of the site with the effects spreading into the locality.

6.47 Despite this reassessment of judgments, the sensitivity for this receptor (despite an identified reduction in susceptibility to change) is considered to remain at a medium level and the change in magnitude of effect is not considered to be enough to result in a change to the anticipated level of effect. This remains as major to moderate adverse and significant in the short term, on the site, reducing to moderate and not significant by the mid-term. A level of effect at a moderate adverse level continues to be anticipated on the locality and initially a moderate adverse effect reducing to moderate to minor adverse on the district Upper Soar LCA in the mid-term, as new green infrastructure matures. The overall level of effect judgment for the remaining hybrid scheme on the low lying clay vales and gentle ridges landscape receptor therefore continues to be moderate adverse reducing to

moderate to minor, at year 10 and is not considered to be significant at this stage of operation.

iii. The Soar tributary flat floodplains and terrace landscape receptor (part of Zone 1)

6.48 Although the magnitude of the effect arising from the remainder of the Hybrid scheme on the Soar tributary flat floodplains landscape receptor in Zone 1 of the application is considered to reduce, the reduction is judged to be too small to justify changing the judgments in the main ES.

6.49 Only small parts of the Soar tributary flat floodplains and terrace landscape receptor would be affected, and the DHL Supply Chain operation (alongside the colouration of the building) is largely restricted from view and buffered by the intervening local ridge or railway embankment. A large part of the valley bottom does not therefore have any intervisibility with the DHL supply chain scheme.

6.50 Therefore, in the majority of the Soar tributary flat floodplains and terrace, the anticipated direct and indirect effects are judged to be at the same magnitude levels as in the main ES: 'medium to high' in the short-term, reducing to 'medium' in the mid-term onwards on the site; 'low' in the short-term reducing to 'very low' in the medium term onwards on the locality; and 'low' in the short term reducing to 'negligible' in the medium term onwards on the district Upper Soar LCA.

6.51 The level of effects also remain as moderate adverse at a site level and not significant; minor adverse reducing to negligible on the locality by the mid-term; and minor reducing to minor adverse to negligible on the district Upper Soar LCA (also not significant) in the mid-term.

6.52 The overall effects are considered to remain as moderate to minor adverse, reducing to minor in the mid-term and not significant, overall.

iv. The High Cross Open Plateau landscape receptor (Zone 2)

6.53 No appreciable changes to the operation stage magnitude or levels of effect as previously assessed are anticipated on the High Cross Plateau, to the west of the A5, alongside Zone 1 of the application site, to the south of Magna Park.

6.54 Whilst there will be some limited intervisibility with the DHL Supply Chain building this is not considered enough to warrant a change in the magnitude judgments, particularly given the scale, extent and location of other hybrid scheme buildings. There is also no change in the main ES judgments regarding the magnitude or level of effect on the High Cross Plateau alongside Zone 2 of the Hybrid site as there are no landscape impacts arising from the DHL Supply Chain scheme in the operation stage.

Visual Effects

Amendments to the Visual Baseline Conditions

6.55 Two sets of VVM to account for the delivery of the DHL Supply Chain development is provided in ES Addendum Volume 3A, Addendum to Technical Appendix F.1. The VVM show a completed DHL Supply Chain scheme where it would be seen in the existing views associated with each of the agreed VVM locations. These VVM also show the changed

baseline against which the remainder of the Hybrid scheme is assessed for the purposes of this addendum to ES Chapter 9.

6.56 The first set of VVM assume (like the Landscape effects addendum) that the DHL Supply Chain building would be present when construction begins for the remainder of the Hybrid scheme, with planting at year 1 of establishment. The second set of VVM is for the DHL Supply Chain scheme with its planting at year 10, shown photo realistically alongside the remaining Hybrid scheme which is shown as a block model with proposed planting also at year 10.

6.57 The VVM have been used to inform the judgements regarding the changed context and consequent extent of visual effects during construction and operation.

6.58 Also revisited in this part of the addendum to the main ES Chapter 9 are the judgments on the views experienced by other visual receptors which are not depicted in the VVM.

6.59 The main implications for the reassessment of the visual baseline include the need to:

- reassess the effects on the views that would be experienced by some visual receptors, notwithstanding the fact that the value people attach to a particular view and the activity or use at a particular location will generally be changed by the visual effects of the DHL Supply Chain scheme;
- reassess the visual experience of the reduced size, scale and extent of the Hybrid scheme with DHL Supply Chain in place when reassessing the magnitude of effects; and
- account for the fact from other visual receptors, that no changes in the existing view will be perceived either because of the orientation of the view and its context or because the change with the DHL Supply Chain scheme in place is so small or of such little consequence in the scene that judgments de facto would be unchanged.

6.60 The addendum therefore addresses principally the degree of change in the nature of views experienced (magnitude); and the visual effects of all the associated infrastructure which the DHL Supply Chain scheme will deliver to the north west and south east of Mere Lane, including the associated A5 widening and Mere Lane improvement works and associated lighting.

Construction: Magnitude and Levels of Effect

6.61 The following receptors are judged to experience a difference in the nature of their existing view and the magnitude of change in their view during construction (Figure 9.6zzt Rev B in ES Addendum Volume 3A shows the location of the numbered views):

In the daytime:

- walkers on parts of W89 south of Ullesthorpe (View 6ai SE)
- horse riders and walkers on a permissive path to the south of Ullesthorpe (View 6b)
- visitors to Bittesby Scheduled monument (the ‘worst case’ from View 7)

- residents on the south eastern edge of Ullesthorpe and road users on parts of the Lutterworth Road (View 8ai)
- visitors to the Ullesthorpe windmill (Views 8aii and 8aiii)
- horse riders on bridleway W88 between Willey and Chuckey Hall (Views 9 a-c)
- users of Argosy Way (Represented by View11)
- users of Mere Lane (Views 12a-f)
- users of some sections of the A5 including bridleway users at the roadside (Views 16b, 16c)

At night-time[9]

- the community of Ullesthorpe (View 8ai - Night)
- road users on part of the A5 and 4esidents in Willey (View 16b).

6.62 With the DHL Supply Chain scheme in place, all of these viewers would experience the visual effects of the remainder of the Hybrid construction activity in this changed context. The magnitude, with DHL in place, would be reduced accordingly.

6.63 As a consequence, changes in the magnitude and level of visual effects are judged to arise both from the reduced size/scale and geographic extent of clearance operations, earthworks, construction activity, including building and highway works and associated temporary lighting (see the separately published Clarification and Supplementary Information to ES Chapter 9). The changes would be most apparent to the following visual receptors and the justifications for changes, during construction, are summarised in the discussion that follows.

Construction – Daytime: magnitude and levels of effects

Walkers on parts of public right of way W89 south of Ullesthorpe (View 6ai – see ES Addendum Vol 3 A, Figures 9.6zzzn Rev A to 9.6zzzw)

6.64 It is judged that there will be a reduction in the size and scale of visual effects and the geographic extent of changes in the panoramic view experienced by walkers on the part of W89 on the edge of Ullesthorpe. The size and scale of change is considered to change from ‘high’ to ‘medium to high’, and the geographic extent of the changes in the view are anticipated to reduce from ‘medium to high’ to ‘medium’.

6.65 However, the changes in the scene, which include the light-coloured tapered façade of the DHL Supply Chain building at the construction stage, are not considered to be enough to effect judgments currently reached regarding the magnitude of effect (‘medium to high’) which would be experienced along this section of footpath from the construction of the remainder of the Hybrid application scheme. Construction activities would still result in some noticeable and contrasting changes in the view and the introduction of some

[9] See ES Addendum Volume 3A. Addendum to Main ES Technical Appendix F.7 Kelly Taylor & Associates on the lighting effects with DHL Supply Chain in both construction and operation phases.

conspicuous and contrasting new features, near the centre or at a slightly oblique angle in the view, across a moderate extent of this mid distance view.

6.66 The level of construction effect would therefore remain as moderate to major adverse and significant at this stage.

Horse riders and walkers on a permissive path to the south of Ullesthorpe (View 6b)

6.67 It is judged that the size and scale of effect on users of this permissive footpath south of Ullesthorpe will reduce from 'high' to 'medium to high', although the geographic extent of construction activities are considered to remain broadly the same as set out in the main ES, given the anticipated soil deposition in the foreground of the view.

6.68 There is also judged to be a reduction in the magnitude of visual effects from 'high to 'medium to high', but not sufficiently to reduce the overall level of effect on users of the route which is considered by the main ES to be major to moderate adverse and significant.

Visitors to Bittesby Scheduled monument ('worst case' View 7 – see ES Addendum Volv3A - Figures 9.6zzzy Rev A to 9.6zzzzi Rev B)

6.69 The size and scale of effect, geographic extent and magnitude of visual effect arising from construction activity and experienced by visitors to the 'worst case' location alongside the Bittesby DMV are all judged to reduce and would change the previously assessed level of effect. From this 'worst case' view, the main ES judged that the DHL Supply Chain building works (with tower cranes) in combination with the remaining Hybrid construction would occupy a moderate to large extent of this localised view from within the application site, causing a noticeable, conspicuous and contrasting new feature in the view.

6.70 However, with the DHL Supply Chain scheme in place, the impact of the construction of the remainder of the Hybrid scheme on the size and scale of visual effects is judged to reduce from 'medium' to 'medium to low', and the geographic extent of the construction works to reduce from 'medium to high' to 'low to medium'.

6.71 The corresponding magnitude of change is judged to reduce from 'medium to high' to 'low to medium' as a result, and the level of effect is reduced from 'moderate to major and significant' to 'moderate and not significant'.

6.72 The construction activity would cause some noticeable deterioration in the view, it would be across a small to moderate extent of it (predominantly in the middle ground) would be short term/temporary and experienced by receptors of medium to high sensitivity.

Residents on the south eastern edge of Ullesthorpe and road users on parts of the Lutterworth Road (View 8ai, see ES Addendum Vol 3A - Figures 9.6zzzzk Rev A to 9.6zzzzo Rev A)

6.73 Both the size and scale and the geographic extent of construction activity and the corresponding magnitude of effect are judged for both receptors to reduce. The corresponding reduction in the judged size and scale of effects is from a 'medium to low' to a 'medium' level**.**

6.74 The reduction in the geographic extent of the construction works is judged to reduce from a 'low to medium' to a 'low' level in the view experienced by residents and road users on the

southern edge of Ullesthorpe. This is considered to result in a reduction in the magnitude of visual effects from 'medium to high' to 'medium'. Nonetheless, the change is not considered to be large enough to alter the judgement on the level of effect in the main ES which was moderate adverse and not significant. There would still be a noticeable deterioration in the middle distance, across a small extent of the view; and the scene would still include the presence of some tower cranes over the short to medium term affecting medium to high sensitivity receptors. The effects, however, would be temporary.

Visitors to Ullesthorpe Windmill (Views 8aii and 8aiii)

6.75 The magnitude of visual effect on visitors to the Ullesthorpe Windmill would reduce and would change the previously assessed level of effect. The size and scale of visual effect, during construction, is judged to reduce from 'medium' to 'low to medium' from the upper floor of the windmill (View 8ai). The geographic extent of construction stage operations experienced from this viewpoint is also now assessed to reduce from 'low to medium' to 'low' as a smaller proportion of the view in the middle distance would be affected with the implementation of the DHL Supply Chain scheme.

6.76 From View 8aii on the middle floor, although there would be no reduction in the geographic extent of the view, the diminution in construction activity with DHL Supply Chain already built, would reduce the size and scale of the construction effects experienced in the view to reduce from 'low to medium' to 'low'.

6.77 The magnitude of change in the views experienced by visitors to both floors of the windmill (Views 8aii and 8aiii) is considered to reduce from 'medium' to 'low to medium', and the level of effect from moderate and not significant, to minor to moderate adverse and not significant. These medium sensitivity receptors would experience some noticeable deterioration during the construction of the remainder of the Hybrid application and the presence of some contrasting and conspicuous tower cranes, in a small extent of the view over the short to mid-term. These effects would be temporary.

Horse riders on public bridleway W88 between Willey and Chuckey Hall (Views 9 a-c)

6.78 The size and scale and geographic extent of construction activity and the corresponding magnitude of visual effect on horse riders and users of bridleway W88 would reduce in both cases from 'high' to 'medium to high'.

6.79 The magnitude of visual effects from the construction activity for the remainder of the Hybrid scheme would correspondingly reduce from 'high' from this part of the route to 'medium to high'.

6.80 The overall level of effect is judged to reduce to moderate to major adverse, but would remain a significant effect at this stage. The construction activity would continue to cause a temporary noticeable to large deterioration in views experienced over the short to medium term by medium sensitivity receptors.

Users of Argosy Way (View 11)

6.81 The size and scale and geographic extent of visual effect on users of Argosy Way would reduce, but not to a degree which would change the previously assessed level of visual effect. As the construction activity to build the new road link to Argosy Way would already

have been implemented, the impact of the remaining Hybrid scheme on users of Argosy Way would arise principally from construction traffic using the road with other vehicles.

6.82 The size and scale of effects against this new baseline are considered to reduce from 'medium' to 'low to medium'. The geographic extent of the construction effects would be limited to the road way, and would reduce from 'medium' to 'low to medium'. The magnitude of change would also now reduce from 'medium' to 'low to medium'.

6.83 However, the level of effect on workers and road users within Magna Park is considered to not change enough to justify a change to the main ES judgment which is already minor adverse and not significant. The visual effects of construction vehicles would cause a barely perceptible deterioration in existing views, would effect a small proportion of the range of views open to the receptor, receptors of low sensitivity and would be small scale(in addition to existing traffic on the route) and apparent over the medium term.

Users of Mere Lane (Views 12a –f, see ES Addendum Vol 3A Figures 9.6zzzzq Rev A to Figures9.6zzzzu Rev A)

6.84 The scale and geographic extent of construction activity and the corresponding magnitude of visual effect on users of Mere Lane would reduce and would also change the previously assessed level of effect.

6.85 With the presence of an implemented DHL Supply Chain scheme and associated Mere Lane, A5 widening improvements and associated new planting, the size and scale of anticipated construction effects on road users of Mere Lane is judged to reduce from 'medium to high' to 'medium'. Construction effects would be limited to a considerably shorter section of Mere Lane where road users access a new roundabout and a new section of link road to the A5. Elsewhere, the wooded fringes to the road and the completed DHL Supply Chain development and the new road infrastructure would occupy near views.

6.86 The geographic extent of construction effects would also be limited to a reduced small section of the sequential view, albeit in close proximity and therefore these effects are anticipated to reduce from 'medium' to 'low to medium'. The magnitude of visual effect in turn is judged to reduce from 'medium to high' to 'low to medium', with the level of effect reducing from moderate adverse and not significant to minor to moderate adverse and not significant.

6.87 The visual effects during construction on horse riders are considered to be at the same level as previously assessed, at the one year stage and before new planting associated with the DHL scheme effectively establishes. The construction operations associated with the remaining Hybrid development are considered to cause some localised noticeable deterioration in the views experienced by road users and horse riders. This deterioration would be short to medium term, temporary and would affect receptors of medium to medium to high sensitivity.

Users of parts of the A5 including bridleway users at the roadside (Views 16b and c, see ES Addendum Vol 3A - Figures 9.6zzzzzj Rev A to 9.6zzzzzn Rev A)

6.88 The size, scale and geographic extent of the remaining construction activity and the corresponding magnitude of visual effect on users of the southern section of the A5

alongside the application site would reduce and thus change the level of effect assessed in the main ES.

6.89 With the road widening works associated with the A5 assumed to be completed and the associated roadside planting works implemented, the size and scale of day time visual construction effects on road users is anticipated to reduce from 'very high' to 'high'. The building works adjacent to the road would remain and the establishment of the road side planting would still be at an early stage.

6.90 The geographic extent of the construction works for the remainder of the Hybrid development is considered to reduce from 'very high' to 'high'. Rather than occurring directly on the road network, the construction works associated with the remaining Hybrid scheme would now be taking place alongside this stretch of the A5.

6.91 The magnitude of change in views experienced by road users on this section of the A5 is judged to reduce from 'very high' to 'high'.

6.92 Overall, the level of visual effect experienced by road users and bridleway users is judged to reduce from 'major to moderate' to 'major' adverse and remains a significant temporary effect. Effects would include some noticeable to large scale deterioration in sequential view along a moderate length of road and would occupy a large proportion of views experienced by medium sensitivity receptors in the short to medium term.

Construction – Night-time: magnitude and levels of effects [10]

The community of Ullesthorpe (View 8ai - Night)

6.93 The geographic extent of the temporary lighting associated with construction of the remainder of the Hybrid scheme and the corresponding magnitude of night-time visual effects on the community of Ullesthorpe would reduce from 'low' to 'negligible' and would also change the level of effect assessed in the main ES.

6.94 The geographic extent of views towards the temporary lighting would be interrupted, as would other areas of temporary security lighting, by the intervening local ridge. The effects of permanent lighting from the permitted DHL scheme would have a negligible effect and with any extended lighting being counterbalanced by an associated reduction in glare and sky glow effects along Mere Lane which form part of the consented DHL scheme.

6.95 The magnitude of visual effect associated with the temporary construction stage security lighting from the remainder of the Hybrid scheme is judged to reduce from 'low to negligible' to 'negligible', with DHL considered to be implemented. The corresponding level of visual effect, at night, is also considered to reduce from 'minor' adverse to 'neutral', during the construction stage.

6.96 The construction stage lighting associated with the remaining Hybrid development in the context of a completed DHL supply chain scheme is considered to cause no discernible

[10] See additional Appendix F.7 Kelly Taylor & Associates Correspondence/Note confirming lighting implications

deterioration in this existing view experienced by the community of Ullesthorpe who are considered to be a medium to high sensitivity receptor.

Road users on part of the A5 and the community in Willey (View 16b - Night)

6.97 The size and scale and geographic extent of the temporary lighting along a section of the A5 and the corresponding magnitude of visual effect on users on road users and the community of Willey would reduce, and would also change the judgments on the level of effect in the main ES.

6.98 The size and scale of the effect of temporary lighting experienced by road users on the 'worst case' section of the A5 is judged to reduce from 'medium to high' to 'low'. The temporary road lighting effects during the road widening works will have been delivered by the DHL Supply Chain development; and this section of the A5 road that would now have the (safety-related) street lighting along that is associated with the completed A5 widening works.

6.99 The size and scale of effect on residents in Willey would reduce from 'very low' to 'negligible'. The geographic extent of the construction stage night time visual effects on road users passing along this section of the A5 would reduce from 'medium' to 'low', and these night time visual effects on residents would reduce from 'low' to 'negligible'. The magnitude of night time visual effect on road users is judged to reduce from 'medium' to 'low' and on residents/the community of Willey to reduce from 'very low' to 'negligible'.

6.100 The magnitude of visual effect on road users on this section of the A5 would reduce from 'moderate' to 'minor' adverse and would not be significant. The level of effect on residents is the judged to be the same as in the main ES and considered to be 'neutral'. There would be no discernible night time visual deterioration during construction arising from this section of the A5 on residents and the community of Willey who are medium to high sensitivity receptors' and there would be barely perceptible night time construction stage effects on road users on this section of the A5 who are receptors of medium sensitivity.

6.101 Other visual receptors at night-time are not considered to either experience any change in their view or changes would be at a level that is not considered to alter existing ES Chapter 9 judgments.

Operation – Magnitude and Levels of Effect

6.102 During operation, with the DHL supply chain considered already built in the existing scene, changes in the previously reported Chapter 9 levels of visual effect, during operation, are now anticipated to be experienced by the following visual receptors:

In the daytime

- walkers on parts of W89 south of Ullesthorpe (View 6ai SE)
- visitors to Bittesby Scheduled monument ('worst case' View 7)
- residents on the south eastern edge of Ullesthorpe and road users on parts of the Lutterworth Road (View 8ai)
- visitors to the Ullesthorpe windmill (View 8aii and 8aiii)

- horse riders on bridleway W88 between Willey and Chuckey Hall (View 9 a-c)
- users of Argosy Way (View11)
- users of Mere Lane (Views 12a –f)

At night-time[11]

- the community of Ullesthorpe (View 8ai - Night).

6.103 During operation, with the DHL Supply chain scheme considered as built development and part of the baseline condition, changes in the magnitude and level of effect judgments from the remaining hybrid scheme visual effects are anticipated to arise from a reduced size/scale and geographic extent of new buildings and changes in the extent of infrastructure, including lighting, in the scene that would be experienced. The changes would be most apparent to the following visual receptors and the justifications for changes, during operation, are summarised below:

Operation – Daytime: magnitude and levels of effects

Walkers on parts of W89 south of Ullesthorpe (View 6ai SE – see ES Addendum Vol 3A Figures 9.6zzzk Rev A -9.6zzzx);

6.104 The size and scale of visual effects and the geographic extent of changes in the panoramic view experienced by walkers on the part of Footpath W89 on the edge of Ullesthorpe is judged to reduce. The size and scale are considered to reduce from 'high reducing to medium in the mid-term', to 'medium to high reducing to medium in the mid-term'. The geographic extent is judged to reduce from 'medium to high, reducing to medium in the mid-term' to 'medium, reducing to low to medium by the mid-term'. The magnitude of change is assessed to reduce from 'high, reducing to medium by the mid-term' to 'medium to high reducing to medium mid-term'.

6.105 The new buildings associated with the remaining Hybrid scheme would occupy a smaller part of the panoramic view, include buildings of a smaller scale to the south east, and occupy a narrower extent in the middle distance from the short term.

6.106 By the mid-term, with establishing tree planting on the ridge / parish boundary to the south east, the reduction in effect would be less pronounced and is not considered enough to change the level of effect judged in the main ES (moderate to major adverse and significant in the short term reducing to moderate and not significant by the mid-term). A key moderating influence from the short term would be the proposed building facade colouring which is tapered and coloured to improve the buildings' integration with their surroundings. By the mid-term, the new logistics buildings would still result in some noticeable changes in the view and would affect a moderate extent of the overall panorama; these effects would be long term on medium to high sensitivity receptors, but would be moderated by the effects of established tree planting at that time.

6.107 The additional indicative realistic VVMs referenced above) illustrate these effects.

[11] See additional Appendix F.7 Kelly Taylor & Associates Correspondence/Note confirming lighting implications

Visitors to Bittesby DMV ('worst case' View 7 in ES Addendum Vol 3A - Figures 9.6zzzy Rev A to 9.6zzzzj Rev B)

6.108 The size and scale of effect and the magnitude of visual effect arising from the operation of the remainder of the Hybrid scheme and experienced by visitors to the 'worst case' location alongside the Bittesby DMV is judged to reduce and also to change the assessment of the level of the effect in the main ES.

6.109 The size and scale of visual effects are now anticipated to reduce from 'high to medium, reducing to medium to low by the mid-term', to 'medium reducing to medium to low in the mid-term'. The geographic extent of visual effects is also judged to reduce from 'medium' to 'low to medium' from visual receptors in this 'worst case' view location.

6.110 The geographic extent of views experienced from other parts of the monument site by visitors remains as low. The remaining Hybrid scheme buildings and infrastructure is of a smaller scale than the DHL Supply Chain building and would occupy a smaller extent of the view and would be partially visible. The visual effects of the buildings would also be moderated by facades that are coloured to integrate with the surroundings from the short term and by new planting that would develop by the mid-term to supplement the existing wooded spinneys providing containment at lower levels.

6.111 The corresponding magnitude of change is now anticipated to reduce from 'high to medium, reducing to medium to low in the mid-term', to 'medium in the short term reducing to medium to low in the mid-term'.

6.112 As a result, the level of effect is also now reassessed and is considered to reduce from' major to moderate' (and 'significant') in the shorter term reducing to 'moderate to minor' from the 'worse case' position, to 'moderate adverse in the shorter term from the 'worst case' view location reducing to minor to moderate adverse' for visitors to the complete DMV site, in the mid-term. Whilst the operations of the remainder of the Hybrid scheme would cause some noticeable and new permanent features in the landscape across a small to moderate extent of the view, predominantly in the middle ground, the changes would affect a small proportion of views from the DMV experienced by receptors of medium to high sensitivity; and the effects would be moderated through the building façade colouring, retention of Bittesby House, and retained open areas together with establishing existing and new planting.

6.113 The additional illustrative photo realistic VVM for the worst case View 7, referenced in the separate clarification and supplemental Addendum to ES Chapter 9 , illustrates the changes.

Residents on the south eastern edge of Ullesthorpe and road users on parts of the Lutterworth Road (View 8ai in ES Addendum Vol 3A - Figures9.6zzzzk Rev A to 9.6zzzzp Rev A)

6.114 The size and scale and geographic extent of the effects, together the corresponding magnitude of visual effects, are judged to reduce on residents and road users on the south east edge of Ullesthorpe, and would also change the assessed level of effect in the main ES.

6.115 With the DHL development in place, there is considered to be a corresponding reduction in the anticipated size and scale of effects from 'medium reducing to low to negligible in the mid-term', to 'low reducing to negligible in the mid-term'. Also, the reduction in the geographic extent of the new buildings is judged to reduce the effect from 'low to medium, reducing to low in the mid-term', to 'low reducing to negligible in the mid-term' in the view experienced by residents and road users on the southern edge of Ullesthorpe.

6.116 This change is judged to result in a reduction in the magnitude of visual effects from 'high to medium and reducing to medium to low in the mid-term', to 'low in the shorter term reducing to 'negligible in the mid-term'.

6.117 The level of visual effect on residents and road users on the edge of Willey has also been reassessed and it is judged would reduce from 'moderate adverse reducing to 'minor adverse, in the mid-term' (and not significant), to 'minor to moderate adverse reducing to neutral in the mid-term' (and not significant). The remaining Hybrid scheme buildings would cause a barely perceptible deterioration in the middle distance across a small extent of the view, and these visual effects would be apparent only in the short to mid-term. Planting belts associated with the DHL supply chain scheme would restrict views completely by the mid-term.

Visitors to the Ullesthorpe Windmill (Views 8aii and 8aiii)

6.118 The size and scale judgment for the operation of the remainder of the Hybrid scheme and the corresponding magnitude of visual effects on visitors to the Ullesthorpe Windmill is judged to reduce, and would also change the previously assessed level of effect.

6.119 The size and scale of the visual effects are considered to reduce from 'low to medium reducing to low in the mid-term', to 'low and remaining low in the mid-term'. The buildings in the remainder of the Hybrid scheme would constitute a smaller change in the view in the middle distance.

6.120 The geographic extent of the views would reduce but not enough to change the current level from 'low'.

6.121 The magnitude of change in the views experienced by visitors to the top floor of the windmill would reduce from 'low to medium reducing to low in the mid-term', to 'low'; but the magnitude of change experienced from the lower floor is considered not be altered enough for this assessment to change.

6.122 The level of visual effect experienced by visitors to the Ullesthorpe Windmill is judged to reduce from 'moderate to minor reducing to minor in the mid-term' (and 'not significant'), to 'minor adverse from the short term onwards' (and 'not significant').

6.123 These medium sensitivity receptors would experience some limited but perceptible deterioration and the presence of some new buildings in the scene, occupying a small extent of the view, and from a small proportion of available views from the windmill. These effects, however, would reduce further over time as the DHL Supply Chain scheme planting on the parish boundary ridge and within the remaining Hybrid application site establishes. The operational stage effects would also be moderated by the new buildings being seen

within the context of other existing logistics buildings in the scene where views are not interrupted by mature foreground trees.

Horse riders on bridleway W88 between Willey and Chuckey Hall (View 9 a-c)

6.124 The size and scale and geographic extent of the effects and the corresponding magnitude of visual effects, on horse riders and users of bridleway W88 would reduce and would also change the previously assessed level of effect.

6.125 From sections of the bridleway represented by views 9ai and 9bi, bridleway users would experience a reduced size and scale of effect from 'high' to 'medium to high'; the geographic extent of the effects is considered to also reduce from 'high' to 'medium to high'. This change is due to the removal of the large scale building and infrastructure associated with DHL scheme from consideration and thus part of the baseline for this addendum, where otherwise they would occupy a large extent of some parts of this sequential view, in close proximity.

6.126 The magnitude of visual effects of the remaining Hybrid scheme would correspondingly reduce from 'high' from this part of the route to 'medium to high'.

6.127 The overall level of visual effect is considered to reduce from 'major to moderate adverse' and 'significant', to 'moderate to major adverse reducing to moderate adverse in the mid-term' and 'not significant', as new and existing retained planting within the application site matures.

6.128 The operation of the remainder of the Hybrid scheme would continue to cause some noticeable deterioration and introduce new features into the scene that, in places, would partially contrast with and, in other places, harmonise with the existing context of Magna Park and the DHL Supply Chain scheme in views experienced by medium sensitivity receptors. The effects of new buildings and infrastructure would continue to be moderated by the retention of an open setting to the route, within the context of a Country Park, the retention of long views towards Willey and Long Spinney and the conservation of existing and the establishment of new planting belts, in places on banks. These will increasingly assimilate and conceal the new infrastructure in combination with building façade colouring which is responsive to its local context.

Users of Argosy Way (View11)

6.129 The geographic extent of the effects of the operation of the remainder of the Hybrid would reduce, but the magnitude of visual effects on users of Argosy Way and the previously assessed level of visual effects would not change enough to warrant amending the judgments in the main ES. With the implementation of the extension to Argosy Way completed, the main visual effects on users of Argosy Way would arise principally from traffic using the road with other vehicles. The size and scale of these visual effects is considered to be the same as made in the main ES.

6.130 The geographic extent of any operation effects would be limited to the road way and would reduce from 'low to medium' to 'low'. The change in the geographic extent, however, is not considered enough to alter the magnitude of change judgments which would remain the same (low to medium).

6.131 The level of effect on workers and road users within Magna Park is also considered not to change enough to justify a reduction of the judgment of 'minor adverse' and 'not significant'. The visual effects of additional vehicles in the operation stage would cause a barely perceptible deterioration in existing views, would affect a small proportion of the range of views open to receptors which are of low sensitivity.

Users of Mere Lane (Views 12a-f, see ES Addendum Vol 3A - Figures9.6zzzzq Rev A to Figures9.6zzzzv Rev A)

6.132 The judgments of the size and scale and geographic extent of the effects on users of Mere Lane, the corresponding magnitude of visual effect would reduce with the implementation of the DHL Supply Chain scheme (including all of its infrastructure and mitigation), and would also change the assessed level of effect in the main ES.

6.133 The size and scale of the sequential effects on road users on Mere Lane is considered to reduce from 'medium reducing to low to medium by the mid- term', to 'low to medium reducing to low by the mid-term'.

6.134 The size and scale of sequential visual effects on bridleway users is considered to reduce from 'medium reducing to low in the mid-term' to 'medium to low, reducing to low in the mid-term'. Operational effects arising from the remainder of the Hybrid scheme application would be limited to a considerably shorter section of Mere Lane. Elsewhere, the wooded fringes to the road and the completed DHL development, maturing boundary planting and the new road infrastructure would occupy near views. A further key factor in the reduction of the assessed effects on permissive bridleway users is the availability of the tree lined stretch of the former section of Mere Lane.

6.135 The geographic extent of the operation stage effects on road users would also be limited to a reduced small section of the sequential view, albeit in close proximity. Therefore these effects are judged to reduce from 'medium reducing to low in the mid-term, to 'medium to low reducing to low in the mid-term'. The geographic extent of effects on bridleway users would also reduce from 'high to medium reducing to medium in the mid-term', to 'medium to low in the short term, low in the mid-term'.

6.136 The magnitude of visual effect experienced by road users is therefore now assessed to reduce from 'low to medium in the mid-term', to 'low to medium in the short term and low in the mid-term'. The magnitude of visual effect experienced by permissive bridleway users is therefore now judged to reduce from 'medium in the mid-term' to 'medium to low in the short term, low in the mid-term'.

6.137 The level of visual effect is also considered to reduce from to reduce from 'minor to moderate adverse' and 'not significant' to 'minor to moderate in the short term and minor adverse in the mid-term' ('not significant'). The level of visual effect on horse riders is considered to reduce from 'moderate adverse' and 'not significant', to 'moderate and then minor to moderate adverse' and 'not significant in the mid-term'. The operation stage of the remainder of the Hybrid scheme is considered to cause some localised noticeable deterioration in the views experienced by road users and horse riders which would be short to medium term and would affect receptors of medium to medium to high sensitivity. However, by the mid-term with the establishment of roadside, roundabout and bridleway

planting, visual effects from new buildings will be noticeable but would be barely perceptible to road users, even in winter, but would remain noticeable intermittently to horse riders as they connect to the wider bridleway network.

Operation – Night-time: magnitude and levels of effects[12]

The community of Ullesthorpe (View 8ai - Night)

6.138 The size and scale and geographic extent of permanent lighting and the corresponding magnitude of night time visual effect on the community of Ullesthorpe, would reduce, and would also change the previously assessed level of effect.

6.139 The size and scale of permanent lighting effects with the remainder of the Hybrid scheme would reduce from 'low to negligible' to 'negligible' with associated further Magna Park lighting enhancements.

6.140 The geographic extent of views towards the permanent lighting of the remainder of the Hybrid scheme would reduce from 'low reducing to negligible' to 'very low reducing to negligible' with existing site enhancements, as the majority of other areas of permanent lighting would be interrupted by the intervening local ridge. The effects of the permanent lighting from the DHL Supply Chain development would have a negligible background effect on views. The proposed and unobtrusive light fittings, with any extended lighting being counterbalanced by an associated reduction in glare and sky glow effects along Mere Lane which form part of the consented DHL scheme explain why.

6.141 The magnitude of visual effect associated with permanent lighting from the remainder of the Hybrid scheme on the community of Ullesthorpe is considered to reduce from 'low to negligible, reducing to negligible', to 'negligible'.

6.142 The level of visual effect is also considered to reduce from minor adverse reducing to neutral, to become neutral throughout the operation phase. The permanent operation stage lighting associated with the remaining hybrid development in the context of a completed DHL Supply Chain scheme is considered to cause no discernible deterioration in this existing view experienced by the community of Ullesthorpe who are considered to be a medium to high sensitivity receptor.

6.143 Other visual receptors are not considered to either experience any change in their view or changes would be at a level that is not considered to alter the judgments in the main ES Chapter 9.

Residual Effects of the Remainder of the Hybrid Scheme

Residual Landscape Effects – Construction Stage

6.144 In summary, there is just one key change to the judgments in the main ES on the residual effects of the Hybrid scheme with the change of baseline to account for the implementation of the permitted DHL Supply Chain scheme:

[12] See additional Appendix F.7 Kelly Taylor & Associates Correspondence/Note confirming lighting implications

- a change from ‘minor to negligible adverse’ effects on a small part of the Lutterworth Lowlands to the south east of Mere Lane, where the level in the Main ES is ‘minor adverse’.

6.145 The assessed effects on this area, however, remain ‘not significant’.

6.146 Otherwise, the scale and nature of changes are not considered so great as to alter the judgments on the residual effects during construction on the low lying clay vales farmland landscape receptor and the Soar valley flat floodplains and terraces landscape receptors within the Zone 1 of the application site, or on the locality or the district LCAs.

6.147 These changes moreover are not considered to justify a change the main ES judgments on the indirect residual landscape effects either on the High Cross Plateau or on the open plateau landscape to the west of the A5 alongside Zone 1 of the application site.

Residual Landscape Effects – Operation Stage

6.148 The addendum assessment results in no key changes to the main ES judgments on the residual effects of the remainder of the Hybrid development during its operation after accounting for the implementation of the permitted DHL Supply Chain scheme.

6.149 The scale and nature of the changes do not alter the main ES judgments on the residual effects during operation on the Lutterworth lowlands landscape receptor in Zones 1 and 2 of the application site, the low lying clay vales farmland landscape receptor and the Soar valley flat floodplains and terraces landscape receptor within Zone 1 of the application site, or on the locality or on the District LCAs.

6.150 Also the changes in the nature and scale of effects arising from the scheme are not anticipated to change the previous judgments regarding the levels of indirect residual landscape effect on the High Cross Plateau – open plateau landscape to the west of the A5, alongside Zone 1 of the application site.

Residual Visual Effects – Construction Stage

6.151 The key changes to the residual effects during construction of the remainder of the Hybrid scheme, after allowing for the implementation of the permitted DHL Supply Scheme, are:

Daytime

- Visitors to Bittesby Scheduled monument – where visual effects are now considered to be moderate adverse and not significant
- Visitors to the Ullesthorpe Windmill – where visual effects are now considered to be minor to moderate adverse and not significant
- Users of a section of the public bridleway W88 represented by viewpoints 9a and 9bi between Willey and Chuckey Hall - where visual effects are moderate to major adverse and which remains significant
- Road users on Mere Lane- where visual effects are now considered to be minor to moderate adverse and not significant
- Road users and walkers/bridleway users reaching the edge of the road side on the southern section of the A5 represented by viewpoints 16b and 16c - where visual

effects are now considered to be moderate to major adverse and continue to be significant

Night-time

- The community of Ullesthorpe represented by viewpoint 8ai – where night time visual effects are now considered to be neutral and not significant
- Road users (represented by viewpoint 16b) on the southern section of the A5 – where night time visual effects are now considered to be minor adverse and not significant

Residual Visual Effects – Operation Stage

6.152 The key changes to the residual effects of the remainder of the Hybrid scheme during operation after the change to the baseline to account for the delivery of the permitted DHL Supply Chain scheme, with planting at year 10, are**:**

Daytime

- Visitors to the DMV, where the visual effects are considered to be minor to moderate adverse and not significant.
- The community on the eastern edge of Ullesthorpe, where the visual effects are considered to be neutral and not significant.
- Visitors to the Ullesthorpe Windmill, where the visual effects are now considered to be minor adverse and not significant.
- Users of a section of the public bridleway W88 (represented by viewpoints 9a and 9bi between Willey and Chuckey Hall), where the visual effects are considered to be moderate adverse and not significant.
- Users of Mere Lane, where the visual effects on road users are considered to be minor adverse and not significant, and where effects on horse riders are considered to be minor to moderate adverse and not significant.

Night-time

- The community of Ullesthorpe (represented by viewpoint 8ai) - where visual effects are now considered to be neutral and not significant

Cumulative Effects

6.153 The main ES Chapter 9 cumulative impact assessment (CIA) is already based on the overall combined landscape and visual effects of the Hybrid application which includes the DHL supply chain scheme, in combination with all of the committed developments agreed for inclusion with HDC in June 2015 plus these combined with the db symmetry application for symmetry park.

6.154 There is therefore no basis for amending the CIA in the submitted ES to account for the delivery of the permitted DHL Supply Chain scheme.

Conclusion

6.155 The site and proposals, albeit in outline, of the 25 October 2016 detailed planning permission for the DHL Supply Chain scheme lie wholly within Zone 1 of the Hybrid application site. The planning permission, most particularly as IDI Gazeley intend to implement the permission and have DHL Supply Chain in occupation by 2018, is a material change to the judgments in the main ES.

6.156 The landscape and visual impact judgments in this addendum to that ES account for the changes in the baseline that will follow from the implementation of that part of the Hybrid scheme in advance of the delivery of the remainder of the proposals for Zone 1 of the Hybrid application site.

6.157 The judgments in this section addendum find that the remainder of the Hybrid application scheme, assuming the DHL Supply Chain scheme is implemented and the associated mitigation planting (worst case) would have 1 year's establishment, would have a lesser effect in landscape and visual terms than the Hybrid scheme as a whole. The remainder of the Hybrid scheme, on its own, is judged not to have significant landscape character effects by the mid-term, and to have reduced and very limited remaining significant residual visual effects, in the mid to longer term.

6.158 There would be no anticipated significant landscape and visual in combination effects with the committed schemes and the significant cumulative effects with the proposed symmetry park scheme are unaffected by the judgments in this addendum.

7 ADDENDUM TO ES CHAPTER 10: AIR QUALITY

Introduction

7.1 This section of the ES Addendum describes the potential air quality impacts, taking into account the grant of planning permission for the DHL Supply Chain application. The assessment, as was the main ES chapter, has been carried out by Air Quality Consultants Ltd.

7.2 This part of the ES addendum describes the predicted air quality in the future assuming that the proposed development does, or does not proceed. It assumes that the consented DHL Supply Chain will be fully operational before 2021. The assessment of traffic-related impacts focuses on the design year (2031) when the proposed development will be complete and fully occupied. In addition, a sensitivity test has been carried out for 2021 (based on the 2031 traffic forecasts), which is the anticipated opening year of the second phase (post-DHL Supply Chain) of the remainder of the Hybrid development; this is to take account of the fact that vehicle emission are forecast to reduce in future years, and provides a worst-case assessment.

7.3 The main ES Chapter 10: Air Quality provided an assessment of potential impacts during the construction works. The consent for DHL Supply Chain does not significantly affect the assessment in the main ES, nor the conclusions that were reached. Thus the construction impacts on air quality are not considered further in this addendum.

7.4 This addendum has been prepared taking into account all relevant local and national guidance and regulations, and follows the methodology agreed with HDC for the main ES (see Hybrid Application: EIA Scoping Information- Appendix I). Unless otherwise stated, the methodologies and input data assumed within the main ES Chapter 10 remain unchanged.

Baseline Dispersion Model Results

7.5 Baseline concentrations of nitrogen dioxide, PM_{10} and $PM_{2.5}$ have been modelled at 15 of the 16 receptor locations as described within the Hybrid Application ES and agreed with HDC. [13] The results, which cover both the future year (2021 and 2031) baselines (Without Development), are set out in Table 8.1, Table 8.2 and Table 8.3 below. These predictions are based on the assumption that the DHL Supply Chain is fully operational by 2021[14]. The traffic data assumed for this assessment are described in ES Addendum Volume 3B.2, Appendix 1.

2021 Baseline

7.6 The predicted annual mean concentrations of nitrogen dioxide are below the objective at all receptor locations. All of the predictions for annual mean PM_{10} and $PM_{2.5}$ concentrations

[13] The 16 Receptors are listed in Table 10.3 of the main ES Chapter 10. Receptor 6 was Emmanuel Cottage is demolished by the DHL Supply Chain scheme, so has been excluded from the addendum baseline.

[14] The implication of the consented DHL Supply Chain is that the traffic associated with this committed development is now included in the "2021 and 2031 baseline + committed development" flows.

are well below the objectives. All annual mean PM_{10} concentrations are well below the threshold (32 µg/m^3) at which an exceedance of the daily mean objective is likely.

2031 Baseline

7.7 The predicted annual mean concentrations of nitrogen dioxide are below the objective at all receptor locations. All of the predictions for annual mean PM_{10} and $PM_{2.5}$ concentrations are well below the objectives. All annual mean PM_{10} concentrations are well below the threshold (32 µg/m^3) at which an exceedance of the daily mean objective is likely.

Table 8.1 Modelled Annual Mean Baseline Concentrations of Nitrogen Dioxide (µg/m^3) [a]

Receptor	2021	2031
1	28.3	23.3
2	26.5	22.1
3	22.6	19.6
4	25.4	21.4
5	19.5	17.4
7	14.1	13.8
8	11.9	12.6
9	15.8	16.9
10	21.6	20.7
11	18.4	18.3
12	19.9	17.8
13	17.0	16.3
14	17.9	16.8
15	17.8	17.2
16	16.2	16.1

Table 8.2 Modelled Baseline Annual Mean Concentrations of PM_{10} (µg/m^3)

Receptor	2021	2031
1	21.4	21.1
2	20.9	20.6
3	19.8	19.5
4	20.6	20.3
5	19.2	18.9
7	17.0	16.8
8	16.3	16.1
9	17.1	16.9
10	18.2	17.9
11	17.1	16.9
12	18.6	18.3
13	18.1	17.8
14	18.4	18.1
15	16.8	16.5
16	18.2	18.0

7.8 While the annual mean PM_{10} objective is 40 µg/m^3, 32 µg/m^3 is the annual mean concentration above which an exceedance of the 24-hour mean PM_{10} concentration is possible, as outlined in LAQM.TG(09) (Defra, 2009). A value of 32 µg/m^3 is thus used as a proxy to determine the likelihood of exceedance of the 24-hour mean PM_{10} objective, as recommended in EPUK & IAQM guidance (EPUK & IAQM, 2015).

Table 8.3 Modelled Baseline Annual Mean Concentrations of $PM_{2.5}$ ($\mu g/m^3$)

Receptor	2021	2031
1	13.2	12.8
2	12.8	12.5
3	12.2	11.9
4	12.7	12.3
5	11.7	11.4
7	10.6	10.4
8	10.3	10.1
9	10.8	10.6
10	11.4	11.2
11	11.0	10.7
12	11.6	11.4
13	11.4	11.1
14	11.5	11.3
15	10.9	10.7
16	11.3	11.1

Operational Effects and Mitigation

Potential Impacts

7.9 Predicted annual mean concentrations of nitrogen dioxide, PM_{10} and $PM_{2.5}$ are set out in Table 8.4, Table 8.5, and Table 8.6 for both the "Without Development" and "With Development" scenarios, for 2021 and 2031. These tables also describe the impacts at each receptor using the impact descriptors previously set out in the Hybrid Application ES.

7.10 In 2021, the annual mean nitrogen dioxide concentrations are predicted to be below the objective at all receptors, with and without the proposed development. The impacts are negligible at most receptors, but slight adverse at Receptors 2, 3 and 4 (adjacent to the A5) and 10 (adjacent to the B4027), and moderate adverse at Receptor 1 (adjacent to the A5).

7.11 In 2031, annual mean concentrations of nitrogen dioxide are well below the objective, with or without the proposed development[15]. The impacts are negligible at all receptors.

PM_{10} and $PM_{2.5}$

[15] There was a transcription error for the 2031 With Development concentrations in Tables 10-15 to 10-17 of the Hybrid Application ES. This does not affect the conclusions reached in the Hybrid Application ES, nor within this ES Addendum. For completeness, amended Tables 10-15 to 10-17 are provided in Appendix 2.

7.12 The annual mean PM_{10} and $PM_{2.5}$ concentrations in both 2021 and 2031 are well below the objectives at all receptors, with or without the Proposed Development. All predicted annual mean PM_{10} concentrations are below the threshold of 32 µg/m^3, and thus there is no likelihood that the daily mean objective will be exceeded.

7.13 The magnitudes of change are imperceptible at all receptors. Coupled with the concentrations all being well below the objective, the impacts are thus described as negligible.

Table 8.4 Predicted Impacts on Annual Mean Nitrogen Dioxide Concentrations in 2021 and 2031 (µg/m^3)

Receptor	2021			2031		
	Without Dev	With Dev	Impact Descriptor	Without Dev	With Dev	Impact Descriptor
1	28.3	31.7	Moderate Adverse	23.3	25.4	Negligible
2	26.5	29.5	Slight Adverse	22.1	24.2	Negligible
3	22.6	25.0	Slight Adverse	19.6	21.2	Negligible
4	25.4	28.3	Slight Adverse	21.4	23.3	Negligible
5	19.5	21.4	Negligible	17.4	18.7	Negligible
7	14.1	14.7	Negligible	13.8	14.2	Negligible
8	11.9	12.3	Negligible	12.6	12.8	Negligible
9	15.8	16.5	Negligible	16.9	17.4	Negligible
10	21.6	23.4	Slight Adverse	20.7	21.8	Negligible
11	18.4	19.6	Negligible	18.3	19.1	Negligible
12	19.9	20.6	Negligible	17.8	18.2	Negligible
13	17.0	18.0	Negligible	16.3	17.0	Negligible
14	17.9	19.0	Negligible	16.8	17.6	Negligible
15	17.8	18.5	Negligible	17.2	17.7	Negligible
16	16.2	17.1	Negligible	16.1	16.7	Negligible
Objective	40		-	40		-

Table 8.5 Predicted Annual Mean PM_{10} Impacts ($\mu g/m^3$)

Receptor	2021			2031		
	Without Dev	With Dev	Impact Descriptor	Without Dev	With Dev	Impact Descriptor
1	21.4	22.6	Negligible	21.1	22.3	Negligible
2	20.9	21.9	Negligible	20.6	21.6	Negligible
3	19.8	20.5	Negligible	19.5	20.2	Negligible
4	20.6	21.5	Negligible	20.3	21.2	Negligible
5	19.2	19.7	Negligible	18.9	19.5	Negligible
7	17.0	17.1	Negligible	16.8	16.9	Negligible
8	16.3	16.4	Negligible	16.1	16.2	Negligible
9	17.1	17.2	Negligible	16.9	17.0	Negligible
10	18.2	18.5	Negligible	17.9	18.2	Negligible
11	17.1	17.3	Negligible	16.9	17.1	Negligible
12	18.6	18.8	Negligible	18.3	18.5	Negligible
13	18.1	18.4	Negligible	17.8	18.2	Negligible
14	18.4	18.7	Negligible	18.1	18.5	Negligible
15	16.8	16.9	Negligible	16.5	16.7	Negligible
16	18.2	18.5	Negligible	18.0	18.3	Negligible
Objective	**40**		-	**40**		-

Table 8.6 Predicted Annual Mean $PM_{2.5}$ Impacts ($\mu g/m^3$)

Receptor	2021			2031		
	Without Dev	With Dev	Impact Descriptor	Without Dev	With Dev	Impact Descriptor
1	13.2	13.8	Negligible	12.8	13.5	Negligible
2	12.8	13.4	Negligible	12.5	13.1	Negligible
3	12.2	12.6	Negligible	11.9	12.3	Negligible
4	12.7	13.2	Negligible	12.3	12.9	Negligible
5	11.7	12.0	Negligible	11.4	11.8	Negligible
7	10.6	10.6	Negligible	10.4	10.4	Negligible
8	10.3	10.4	Negligible	10.1	10.2	Negligible
9	10.8	10.9	Negligible	10.6	10.7	Negligible
10	11.4	11.6	Negligible	11.2	11.4	Negligible
11	11.0	11.1	Negligible	10.7	10.9	Negligible
12	11.6	11.7	Negligible	11.4	11.5	Negligible
13	11.4	11.6	Negligible	11.1	11.3	Negligible
14	11.5	11.7	Negligible	11.3	11.5	Negligible
15	10.9	11.0	Negligible	10.7	10.8	Negligible
16	11.3	11.5	Negligible	11.1	11.2	Negligible
Objective	25		-	25		-

Significance of Predicted Effects

7.14 In 2021, there are slight to moderate adverse impacts at six receptors, but all predicted concentrations are well below the objective. It must also be borne in mind that this assessment is founded on a worst-case assumption that all traffic associated with the completed and fully-operational Development is on the road in 2021, when, in reality, only half of the Scheme will have been completed. The effects in 2021 are therefore judged to be not significant, and are unchanged from those described in the Hybrid Application ES.

7.15 In 2031, all concentrations are predicted to be below the objective and all impacts are predicted to be negligible. The effects in 2031 are therefore judged to be not significant, and are unchanged from those described in the Hybrid ES.

Table 8.7 Factors Taken into Account in Determining the Overall Significance of the Scheme on Local Air Quality

Factors	Outcome of Assessment
The descriptions of the impacts at the receptors.	The impacts at the receptors range from *negligible* to *moderate adverse*.
Number of people affected by increases and/or decreases in concentrations and a judgment on the overall balance.	All of the modelled receptors will experience an increase in concentrations.
Whether or not an exceedance of an objective is predicted to arise in the study area where none existed before or an exceedance area is substantially increased.	No new areas of exceedance of the objective are predicted.
Whether or not the study area exceeds an objective and this exceedance is removed or the exceedance area is reduced.	In 2021 and beyond, there are no predicted exceedances.
Uncertainty, including the extent to which worst-case assumptions have been made.	The assessment is founded on a worst-case assumption that all traffic associated with the completed and fully-operational Development is on the road in 2021, when, in reality, only half of the Scheme will have been completed.
The extent to which an objective is exceeded.	There are no predicted exceedances of the objectives.

Proposed Mitigation

7.16 Measures to reduce pollutant emissions from road traffic are principally being delivered in the longer term by the introduction of more stringent emissions standards, largely via European legislation. The Council's Air Quality Action Plan will also be helping to deliver improved air quality.

7.17 Additionally, the existing routing arrangement which requires all HGVs to use the strategic and primary road networks only (thus prohibiting all HGVs from driving through the Lutterworth AQMA) will continue to be rigorously enforced. As has been agreed with the Council for the DHL Supply Chain, HGV routing from The Magna Park Extension will be enforced by ANPR cameras and a penalty charge scheme. Any sums raised from the fines will be given to HDC to invest in the delivery of their Air Quality Action Plan.

Residual Effects

7.18 The residual effects will be the same as those identified above.

Cumulative Effects

7.19 The predicted operational air quality effects are based on traffic data that includes all local committed developments (including the consented DHL Supply Chain). Therefore, the predicted concentrations presented in this assessment include all cumulative effects.

Other Developments Accounted

7.20 On 5 June 2015, a planning application was submitted by db symmetry for the development of a strategic logistics park (symmetry park) on land to the south of Magna Park. The application has not yet been determined, and as such, this development was not included in the list of committed developments. However, for completeness, a sensitivity test has been carried out which considers the potential combined effects of the proposed expansion of MPL and Symmetry Park. Traffic data associated with Symmetry Park have been provided by URS and have been added to the 2031 With Scheme scenario in order to predict the impacts. The results are shown in Table 8.8 to Table 8.10[16].

7.21 The impacts for nitrogen dioxide are negligible other than at receptors 1, 2 and 4, where slight adverse impacts are predicted. However, the predicted concentrations are all well below the objective. The predicted impacts for PM_{10} and $PM_{2.5}$ are negligible at all receptors. The cumulative effects in 2031 with Symmetry Park are therefore judged to be not significant, and are unchanged from those described in the Hybrid ES.

[16] There was a transcription error for the 2031 With Development concentrations in Tables 10-19 to 10-21 of the Hybrid Application ES. This does not affect the conclusions reached in the Hybrid Application ES, or within this ES Addendum. For completeness, amended Tables 10-19 to 10-21 are provided in Appendix 2.

Table 8.8 Predicted Impacts on Annual Mean Nitrogen Dioxide Concentrations (µg/m^3) – With symmetry park

Receptor	2031		
	Without Development	With Development + Symmetry Park	Impact Descriptor
1	23.3	26.3	Slight Adverse
2	22.1	24.8	Slight Adverse
3	19.6	21.7	Negligible
4	21.4	23.9	Slight Adverse
5	17.4	19.0	Negligible
7	13.8	14.6	Negligible
8	12.6	13.0	Negligible
9	16.9	17.7	Negligible
10	20.7	22.5	Negligible
11	18.3	19.5	Negligible
12	17.8	18.7	Negligible
13	16.3	17.7	Negligible
14	16.8	18.5	Negligible
15	17.2	18.3	Negligible
16	16.1	17.3	Negligible
Objective	**40**		-

Table 8.9 Predicted Annual Mean PM_{10} Impacts (µg/m^3) – with symmetry park

Receptor	2031		
	Annual Mean PM_{10} (µg/m^3)		
	Without Development	With Dev + Symmetry Park	Impact Descriptor
1	21.1	22.7	Negligible
2	20.6	21.9	Negligible
3	19.5	20.5	Negligible
4	20.3	21.5	Negligible
5	18.9	19.7	Negligible
7	16.8	17.1	Negligible
8	16.1	16.2	Negligible
9	16.9	17.1	Negligible
10	17.9	18.5	Negligible
11	16.9	17.3	Negligible
12	18.3	18.8	Negligible
13	17.8	18.6	Negligible
14	18.1	19.0	Negligible
15	16.5	16.9	Negligible
16	18.0	18.7	Negligible
Objective	**40**		-

Table 8.10 Predicted Annual Mean $PM_{2.5}$ Impacts (µg/m^3) – with symmetry park

Receptor	2031		
	Annual Mean $PM_{2.5}$ (µg/m^3)		
	Without Development	With Dev + Symmetry Park	Impact Descriptor
1	12.8	13.7	Negligible
2	12.5	13.3	Negligible
3	11.9	12.5	Negligible
4	12.3	13.1	Negligible
5	11.4	11.9	Negligible
7	10.4	10.5	Negligible
8	10.1	10.2	Negligible
9	10.6	10.7	Negligible
10	11.2	11.5	Negligible
11	10.7	11.0	Negligible
12	11.4	11.6	Negligible
13	11.1	11.5	Negligible
14	11.3	11.8	Negligible
15	10.7	10.9	Negligible
16	11.1	11.4	Negligible
Objective	**25**		-

Summary

7.22 The operational impacts of increased traffic emissions arising from the additional traffic on local roads, due to the development, have been assessed taking into account the consented DHL Supply Chain. Concentrations have been modelled for 16 worst-case receptors, representing existing properties where impacts are expected to be greatest.

7.23 The proposed scheme will increase traffic volumes on local roads. These changes will lead to an increase in concentrations of PM_{10} and $PM_{2.5}$ at all existing receptors, and the impacts will all be negligible. In the case of nitrogen dioxide, in 2021, the impacts will be negligible at most receptors, but slight adverse at Receptors 2, 3, 4 and 10, and moderate adverse at Receptor 1. In 2031, the impacts will all be negligible.

7.24 The overall operational air quality effects of the development are judged to be not significant in both 2021 and 2031, and are unchanged from the conclusions described in the main ES Chapter 10.

8 ADDENDUM TO ES CHAPTER 11: HERITAGE AND ARCHAEOLOGY

Introduction

8.1 This chapter of the ES Addendum reviews the potential impacts upon heritage assets in light of the grant of planning permission for the DHL Supply Chain application (planning ref: 15/00919/FUL). This part of the ES Addendum seeks to establish whether the changes in the heritage baseline data affect the conclusions of the main ES Chapter 11 - Archaeology and Heritage. The assessment has been carried out by CgMs, as was the main ES Chapter 11.

8.2 The main ES Chapter 11 drew upon the desk-based assessment, a heritage statement, a Historic Building Survey of Bittesby House, Bittesby Lodge and Bittesby Cottages and programmes of geophysical survey, fieldwalking, trial trenching and metal-detecting to establish the archaeological interest of the land within the Hybrid application Zone 1 development site (henceforth referred to as the 'Site'). Since the main ES was submitted for the Hybrid application, archaeological mitigation for the DHL Supply Chain development, comprising excavation of six areas within the permitted development site, has been completed. These works were carried out in accordance with the HDC-approved Written Scheme of Investigation (WSI) for Archaeological Excavation (AT/SM/17561/07). All works have been monitored on behalf of the HDC by LCC's Planning Archaeologists and completed to their satisfaction. A formal report on this work will be submitted to HDC for approval in due course.[17]

Policy and Guidance

8.3 There have been no relevant changes in legislation or national and local policy in relation to heritage assets since the main ES Chapter 11 was submitted.

8.4 The specific guidance used to prepare the main ES Chapter 11 (see CgMs DBA 2016) remains current and there have been no relevant changes to the guidance.

8.5 It is concluded that the assessment remains valid in respect of current legislation, policy and guidance.

Baseline Conditions

8.6 Baseline conditions have been established through an Archaeological Desk-Based Assessment, a Heritage Statement, a Historic Building Recording of Bittesby House, Bittesby Cottages and the Lodge and programmes of geophysics, fieldwalking, metal detecting, trial trenching and archaeological mitigation.

[17] The WSI, archaeological investigations and report are requirements of Conditions 6, 7 and 8 to the planning permission for DHL Supply Chain (15/00919/FUL).

8.7 The sections below review the baseline conditions established by the main ES Chapter 11, and identify any significant changes to the identified heritage assets resulting from the implementation of DHL Supply Chain consent.

Designated Heritage Assets

8.8 There have been no additional heritage designations within the Site or 1km search radius since submission of ES Chapter 11 in May 2016.

8.9 The implementation of the planning permission for the DHL Supply Chain will involve construction of a substantial distribution warehouse and associated infrastructure within 500m of the Scheduled Monument of Bittesby Deserted Medieval Village (referred to here as the DMV). The upper storey of the building will be visible in views to the south-east and south from a small area at the highest point of the DMV at its northern extent.[18]

8.10 The implementation of the DHL Supply Chain permission will not impact upon the heritage significance of the DMV to a degree that would require reappraisal of its assessed significance in the main ES.

8.11 Within the surrounding search area, there are three further scheduled monuments (SM): the 'Moat, fishponds and shifted village earthworks at Ullesthorpe', the 'Moated site, enclosure and trackway at Claybrooke Parva and the 'Roman town at High Cross'. The SM at Ullesthorpe is discussed below, but the other SMs were scoped out of the ES as there was no potential for impact on these heritage assets (see CgMs DBA 2016). The potential for impact on the designated heritage assets which were scoped out of the previous ES remains unaltered.

8.12 The setting of the SM at Ullesthorpe will be altered through the introduction of views of the upper storey of the DHL Supply Chain building from the highest point of the designated site (ES Addendum Volume 3, Appendix 3A: Appendix F.1 View 5aiii). However, the heritage significance of the SM, established in the ES Chapter for Archaeology and Heritage, will remain unchanged.

8.13 Ullesthorpe Mill (a Grade II Listed Building) is located in the north part of the Ullesthorpe village. Distant views of the DHL Supply Chain building from the upper two storeys of the Mill will be seen from its southerly aspect. This alteration will alter the Mill's setting; however, it will not impact upon the heritage significance of the building.

8.14 Distant views of the upper storeys of the DHL Supply Chain building will also be visible from the Conservation Area of Ullesthorpe. The heritage significance of the Conservation Area, established in the ES Chapter 11: Archaeology and Heritage, will remain unchanged despite the changes in its setting.

Non-designated Heritage Assets

8.15 Emmanuel Cottage and the non-designated heritage asset of the former lodge to Bittesby House (Lodge Cottage) will be demolished as part of the delivery of the DHL Supply Chain

[18] Addenda to the verified visual montages to account for the DHL Supply Chain building as part of the visual baseline are provided in ES Addendum Volume 3A, Appendix F1, View 7S - Figures 9.6zzzy Rev A to 9.6zzzzi Rev B

planning permission. For the purposes of this addendum to the ES, these buildings no longer form part of the baseline data for the remainder of the Hybrid planning application.

8.16 Implementation of the approved WSI involved the archaeological excavation and recording of heritage Assets A1, A2, A3, A5, A6 and A10 in advance of their destruction by the construction works.[19] The excavations broadly confirmed the veracity of the assessments of significance based on the geophysical survey and trenching results. Areas 1 and 3 contained a greater density of features than anticipated; however, these features are not of a significance that would change the baseline understanding. A summary of the results is provided below in Table 8.1.

Table 8.1 Results of the archaeological mitigation following for the DHL Supply Chain development

Asset Number	Expected results based on Geophysics and Trenching	Results of Archaeological Excavation	Date
A1 (Area 1)	Early Roman field system	Parallel ditches as identified by geophysical survey and found with evaluation trench 16. Two additional ditches that were perpendicular but based on stratigraphic evidence were not contemporary. Scatter of small pits and postholes.	Iron Age / Roman
A2 (Area 2)	Probably Iron Age boundary ditch and pit	Large ditch as identified by geophysical anomalies and found with evaluation trench 17. The ditch is visible as a more extensive geophysical anomaly and continues into Area 3 (Asset A3). One other smaller ditch perpendicular and probably contemporary/ Small enclosure on north side of the larger ditch.	Pre 'Belgic' Iron Age
A3 (Area 3)	Probably Iron Age ditch	One ditch as identified by geophysical anomalies and found with evaluation trench 18. This was the continuation of the ditch in Area 2 *c.* 190 to the west, but is considerably smaller in Area 3. Ditch enclosure attached to the south side of the main ditch as identified by geophysical survey. One roundhouse gully and other ditches to the southwest of the enclosure.	Pre-'Belgic' Iron Age

[19] Asset 4 has been preserved in situ, and was not part of the mitigation required by the WSI for the DHL Supply Chain consent.

Asset Number	Expected results based on Geophysics and Trenching	Results of Archaeological Excavation	Date
A5 (Area 5)	Probably early Roman trackway	Two parallel ditches correspond with the north side of the trackway identified by geophysical survey and within evaluation trench 3. The ditch within the trench corresponding to the south side of the trackway proved to be a natural variation. One other extensive ditch and two possible postholes was identified.	Probably late Iron Age/early Roman
A6 (Area 6)	Undated ditch	One ditch identified by geophysical anomalies and found with evaluation trench 1. The ditch is visible as a more extensive geophysical anomaly outside the DHL area. Two other ditches were identified orientated perpendicular to the main one and which are therefore likely to be contemporary.	Probably pre-'Belgic' Iron Age
A10 (Area 4)	Early Roman settlement	Series of ditches probably serving a drainage function as they were located in a low-lying area parallel with the present field boundary	Pre 'Belgic' Iron Age

8.17 The construction of the DHL Supply Chain building c 75m to the east of Assets A7, A8 and A9, located on the ridge to the north-east of the DMV, will result in an alteration to the setting of these non-designated heritage assets.

8.18 The construction of the DHL Supply Chain building will also result in an alteration to the setting of Bittesby House and Bittesby Cottages in that there will have been an introduction of modern development c 130m north-east of Bittesby House and c 30m south-east of Bittesby Cottages.

8.19 The DHL Supply Chain development will not, however, alter the intensive arable regime which will continue to operate across the remainder of the Hybrid Site. This regime has a particular impact on the previously unknown heritage assets (prior to the investigations that have accompanied the Hybrid planning application) that are located on the ridge between the DHL Supply Chain site and the DMV. These assets (A7, A8 and A9) comprise a Roman ladder settlement and associated enclosures. They demonstrably contribute to the significance of the DMV. Their topographic position renders them particularly vulnerable to erosion by ploughing. It is known that almost all vestiges of the medieval landscape above ground (outside of the DMV) have been destroyed by modern agricultural use of the site. It

also is likely that buried remains within the site will be significantly impacted for the foreseeable future by continued intensive agricultural practice.

Construction Effects and Mitigation

Potential Impacts/Issues

8.20 The construction of the DHL building alters the previously assessed baseline conditions for the DMV.

8.21 The introduction of additional modern development to the south-east and south (from the construction in Parcels E, H and I of the remainder of the Hybrid development) will cause a small adverse impact on the setting of the DMV. The changes to the baseline conditions have not resulted in any change to the previous conclusions made in the main ES Chapter 11, in that there will be an indirect moderate impact upon the DMV through the additional alterations in its setting. The magnitude of change, however, will be demonstrably reduced although the conclusions established in the main ES Chapter 11 remain unchanged.

8.22 The non-designated heritage assets A7, A8 and A9, which comprise a Roman ladder settlement located on the ridge to the east of the DMV, contribute to its significance and setting. The Hybrid application removes these assets from intensive arable cultivation and preserves them in situ within the proposed c 28 ha Meadow. The creation of the Meadow and the Country Park and their management will preserve and protect the DMV and associated ladder settlement in perpetuity. This will halt the attrition of the archaeological resource within areas currently ploughed, and the creation and management of the Meadow adjacent to the DMV will enhance the management of the DMV itself.

8.23 The main ES established a Medium Beneficial impact on Assets A7, A8 and A9 from the creation of the Meadowland and the removal of the heritage assets on the ridge from arable cultivation. This was a balance between the setting impacts upon the assets during and subsequent to construction of the DHL Supply Chain building and associated infrastructure and the benefits from the archaeology's effective preservation in situ. With the change in baseline conditions subsequent to the implementation of the DHL Supply Chain consent, the balance shifts such that the creation of the Meadow and the management in perpetuity of the DMV and associated assets will result in a Large Beneficial magnitude of change to these assets.

8.24 The non-designated heritage assets of the three Iron Age/Romano-British and Medieval settlements (A13, A15 and A18) and Assets A1, A2, A3, A11, A16, A17, A20 and A22-A28 (ditches and trackways of low importance) will be destroyed during the construction phase. The conclusion in the main ES Chapter 11 for these assets remains unchanged.

8.25 The construction of the DHL Supply Chain building will alter the settings of Bittesby House and Bittesby Cottages. However, the conclusions established in the main ES Chapter 11 remain unchanged.

8.26 The addition of views of the upper storey of the DHL building alters the baseline conditions established for the Scheduled Monument of the 'Moat, fishponds and shifted village earthworks at Ullesthorpe'. The proposed development will introduce additional modern development (the upper 6-8 metres of the warehouses in parcel K and glimpsed views of

the upper c.3m of the warehouse in parcel I) into the setting of the DMV. Despite the alteration to the baseline, the conclusions established in the submitted ES Chapter 11 remain as Moderate/Minor.

8.27 The changes in the setting of Ullesthorpe Mill (Grade II Listed Building) and the Conservation Area of Ullesthorpe will have been mitigated through screening included within the design proposals for the DHL Supply Chain building. The alterations do not detract significantly from the wider setting of these designated heritage assets and therefore, there is no change to the original conclusions established in the main ES Chapter 11.

Significance of Predicted Effects

8.28 The DHL Supply Chain development results in no changes to the assessed effects established in the main ES Chapter 11 for any designated heritage assets.

8.29 Archaeological Assets A7, A8 and A9 comprising Roman ladder-type settlement located on the ridge north-east and east of Bittesby Scheduled Monument demonstrably contribute to the significance and setting of the DMV. There is a positive impact on these assets by removing this area from cultivation and implementing a management plan for the DMV and the associated assets in perpetuity. The overall impact is therefore changed from Medium Beneficial to Large Beneficial.

8.30 The changes to the non-designated heritage assets located within the DHL Supply Chain application footprint (A1-A3, A5, A6 and A10) have now been mitigated through preservation by record. There will be no further impact on these Assets from the remainder of the Hybrid application and thus the significance of this impact is amended to nil.

8.31 The former Lodge to Bittesby House (HB3) and Emmanuel Cottages will be demolished as part of the consented works for the DHL Supply Chain development. However, this loss is mitigated by the preparation of the Historic Building Recording of these buildings (Trigpoint 2016). There will therefore be no further impact on these non-designated heritage assets and as a consequence, the significance of the impact of the remainder of the Hybrid development is changed to nil.

Proposed Mitigation

8.32 There is no change to the proposed mitigation identified in the main ES Chapter 11 for any designated heritage assets or the non-designated heritage assets (A11-A28).

8.33 The results of the fieldwork, undertaken as part of the mitigation works for DHL, have identified that the features within Areas 1 and 3 extend beyond the footprint of the DHL Supply Chain development. Additional mitigation, by archaeological excavation, will be required in proximity to the earlier excavations.

8.34 The baseline mitigation for the DHL Supply Chain has now been completed, effectively preserving Assets A1-A3, A5, A6 and A10 (as they were present within the application footprint) by record and Asset A4 has been preserved in situ. No further archaeological mitigation is required for these assets within the footprint of the DHL Supply Chain development.

8.35 A community excavation and open day was carried out during the archaeological mitigation for the DHL site. A formal commitment to expand and build on this community engagement has been made to all participants. If the Hybrid application receives planning permission future archaeological mitigation works within the site will be organised to ensure that there is a significant community involvement. There is also a commitment to seek to ensure that the resulting archive is retained long-term on site within the Local Heritage Centre and that a local educational resource will be created. This will bring together and enhance the baseline historical understanding that has been built during the project of Bittesby parish with what is likely to be a significant material archive.

8.36 Non-designated heritage assets A7-A9 will be removed from intensive agricultural regime and preserved in situ within the 28 ha Meadowland. This will also allow for more effective management of the DMV.

Operational and Residual Effects, Mitigation and Related Benefits

8.37 Direct effects on the archaeological resource are limited to the construction phase. The indirect effects on the setting of the DMV and associated non-designated heritage assets may continue during the operational phase of the development.

Potential Impacts/Issues

8.38 There are no changes to the conclusions established in the main ES Chapter 11 regarding the potential impacts of the residual operational effects of the development on any designated heritage assets.

8.39 The non-designated assets located on the ridge to the east of the Monument (A7-A9) will be removed from cultivation and preserved in situ within the proposed 28 ha Meadow. This proposal is in part mitigation for the impact of the remainder of the Hybrid application and in part a benefit that has been designed into the Hybrid application.

8.40 There will be no changes to the previously established effects on any other non-designated heritage assets.

Significance of Predicted Effects

8.41 The operational and residual impact upon the group value of the assets located on the ridge to the east of the DMV is considered to be Large Beneficial.

Further Mitigation and Benefits

8.42 The application seeks, amongst other uses, planning permission for a Local Heritage Centre (LHC) – in part to take advantage of the opportunity presented by the inherent interest and importance of the DMV and the much increased knowledge of the history of the site's habitation and in part to provide a means of opening the extended Magna Park to the community. The principal theme of the LHC is the interaction of landscape and human habitation and the economies that sustain them. The research and investigation in support of the applications to date has transformed the understanding of the parish of Bittesby. Additional extensive excavation undertaken as part of conditioned works for the Hybrid application will add again to the evolving historical understanding.

8.43 The archaeological mitigation for the DHL Supply Chain scheme has provided an opportunity for local community involvement and site tours. The applicant commits to continuing and expanding upon this outreach during the archaeological mitigation for the operational and residual phases of the Hybrid application in an effort to further community input and enhance understanding of the parish of Bittesby.

Cumulative Effects

8.44 The assessment in this addendum to the main ES Chapter 11 makes no change to the cumulative impact assessment in that chapter – which already takes the DHL Supply Chain scheme into account in considering the cumulative effects both with other committed development and with these and the proposed 'symmetry park'. The main ES states, "The cumulative impact of the present scheme, consequently, must be considered in terms of its incremental impact on the archaeological resource of the region. The archaeological mitigation measures required at each of these sites would enhance the archaeological resource and the Leicestershire and Rutland Historic Environment Record or Warwickshire Historic Environment Record. The potential cumulative impact of the [Hybrid application] scheme is therefore considered to be beneficial."

9 ADDENDUM TO ES CHAPTER 12: ECOLOGY AND NATURE CONSERVATION

Introduction

9.1 The addendum to the main ES Chapter 12: Ecology and Nature Conservation set out below considers the impact on habitats and species that are known to occur at the site of the remainder of the Hybrid application for the duration of both the construction and operational phases assuming that the DHL Supply Chain development, with all mitigation in place, is operational by 2018.

9.2 The cumulative impacts of the remainder of the Hybrid development with the DHL Supply Chain as a commitment are also considered.

9.3 This addendum to the main ES Chapter 12 has been prepared by Delta Simons, as was the main ES Chapter 12.

The Changes in Predicted Impacts

9.4 Table 9.1 provides a full account of the changes to the judgments reached in the main ES Chapter 12 to account for the change in baseline conditions that follow from the inclusion of the DHL Supply Chain development, with all its mitigation, in the baseline.

Residual Effects excluding DHL Supply Chain

9.5 There will be no residual effects on non-statutory designated sites, habitats or fauna resulting from the remainder of the Hybrid application development.

Construction

9.6 There will be no residual effects on non-statutory designated sites, habitats or fauna resulting from the construction phase of the remainder of the Hybrid development.

Operational

9.7 There will be no residual effects on non-statutory designated sites, habitats or fauna resulting from the operational phase of the remainder of the Hybrid development.

Cumulative Impacts

9.8 For the purposes of the effects of cumulative impacts of any committed off-site development combined with the Hybrid development upon ecology, all relevant proposed and recently granted planning applications have been considered within Chapter 12, where publically available information allowed. In addition, one further recently committed off-Site development has also been considered:

9.9 The permitted DHL Supply Chain development entails the erection of a single building for B8 (storage and distribution) use, with associated access, infrastructure and hard and soft landscaping. Landscaping at the site will incorporate extensive structural planting including mixed native woodland and scattered trees, enhancing areas of retained woodland. Mere Lane Lagoon within the northern extent of the site is to be retained and Sustainable Urban

Drainage (SUDs) incorporated throughout the site. Open space within the northern, western and southern extents of the site is to be planted with a species-rich wildflower meadow mix. The site lies within the remainder of the Hybrid site along its south-eastern and eastern boundary.

9.10 Whilst a continuation of the same habitats and associated faunal species were found to occur across both the DHL Supply Chain site and the remainder of the Hybrid site, there are not considered to be any cumulative impacts to arise on non-statutory designated sites occurring within a 2 km radius of the sites, habitats and flora.

9.11 There is a breeding GCN population within the Services Farm beyond the south-eastern boundary of both of the sites, a second population within land off-site to the north-east, and a third population within land to the north of the remainder of the Hybrid development site. Given that the distances between each of these GCN populations does not enable dispersal between the populations, and in addition the population at the Services Farm is fragmented from the other populations by development, there are not considered to be any cumulative impacts to occur on the individual populations.

9.12 Furthermore, there are a number of individual lone male/ non-breeding female bat roosts of widespread species occurring within a number of buildings and trees on both of the DHL Supply Chain and remainder of Hybrid development sites. Given that the loss of all of the roost sites associated with both sites is not considered to have any significant adverse impact on the local population conservation statuses of the bat species occurring, there are not considered to be any cumulative impacts to arise on the bat populations as a result of the developments.

9.13 Therefore, it is concluded that the cumulative impact of the remainder of the Hybrid site (excluding the part of it that contains the permitted DHL Supply Chain scheme) remains as set out in the main ES Chapter 12.

Table 9.1: Summary of the Addendum Assessment to Chapter 12: Ecology and Nature Conservation

Ecological Feature (Geographic Value Hybrid Application both with and without the DHL included)	Construction Phase Nature of Effect (with DHL)	Construction Phase: Nature of Effect (without DHL)	Const. Phase: Duration of Impact (with/without DHL)	Const. Phase: Significance of Effect (with/ without DHL)	Operational Phase Nature of Effect (without DHL)	Operational Phase Duration of Impact (with/without DHL)	Operation Phase: Signifi-cance of Effect (with/ without DHL)	Operational Phase Nature of Effect (without DHL)
Non-statutory designated sites (Local Value)	Habitat loss – Culverting of Drain 5, which flows south-north across the Hybrid Site Noise, light and vibration Pollution events and change in water levels – Mere Lane Lagoon and streams flowing across the Site	Habitat loss – Culverting of Drain 5, which flows south-north across the Hybrid Site Noise, light and vibration Pollution events and change in water levels to the streams flowing across the Site	Permanent and Temporary	Minor Adverse – Not Significant	Noise and light Pollution events	Permanent	Permanent	Minor adverse – not significant
All Habitats (Local Value)	N/A	N/A	N/A	N/A	N/A	Enhancement planting and management Pollution	Permanent Temporary	Minor Beneficial – not significant Minor Adverse – not-significant
Broadleaved plantation woodland (Local Value)	Habitat loss Damage to habitat, especially roots	Habitat loss Damage to habitat, especially roots	Permanent	Minor adverse – Not significant	N/A	N/A	N/A	N/A

Ecological Feature (Geographic Value Hybrid Application both with and without the DHL included)	Construction Phase Nature of Effect (with DHL)	Construction Phase: Nature of Effect (without DHL)	Const. Phase: Duration of Impact (with/without DHL)	Const. Phase: Significance of Effect (with/ without DHL)	Operational Phase Nature of Effect (without DHL)	Operational Phase Duration of Impact (with/without DHL)	Operation Phase: Signifi-cance of Effect (with/ without DHL)	Operational Phase Nature of Effect (without DHL)
Scattered broadleaved trees (Local Value)	Habitat loss Damage to habitat, especially roots	Habitat loss Damage to habitat, especially roots	Permanent	Minor adverse – Not significant	N/A	N/A	N/A	N/A
Scattered coniferous trees (Local Value)	N/A Habitat not present	Habitat loss Damage to habitat, especially roots	Permanent/ N/A without DHL	Minor adverse – Not significant N/A without DHL	N/A	N/A	N/A	N/A
Marshy grassland (Local Value)	Habitat loss	Habitat loss	Permanent	Minor adverse – Not significant	N/A	N/A	N/A	N/A
Poor semi-improved grassland (Local Value)	Habitat Loss	Habitat Loss	Permanent	Minor adverse – Not significant	N/A	N/A	N/A	N/A
Tall Ruderal (Local Value)	Habitat Loss	Habitat Loss	Permanent	Minor adverse – Not significant	N/A	N/A	N/A	N/A
Standing water	Habitat loss Change in water levels Pollution events	Habitat loss Change in water levels	Permanent	Minor adverse –	N/A	N/A	N/A	N/A

Ecological Feature (Geographic Value Hybrid Application both with and without the DHL included)	Construction Phase Nature of Effect (with DHL)	Construction Phase: Nature of Effect (without DHL)	Const. Phase: Duration of Impact (with/without DHL)	Const. Phase: Significance of Effect (with/ without DHL)	Operational Phase Nature of Effect (without DHL)	Operational Phase Duration of Impact (with/without DHL)	Operation Phase: Signifi-cance of Effect (with/ without DHL)	Operational Phase Nature of Effect (without DHL)
(Local Value)		Pollution events		Not significant				
Running water (Local Value)	Habitat loss - culvert Change in water levels Pollution events	Habitat loss - culvert Change in water levels Pollution events	Permanent	Minor adverse – not significant	N/A	N/A	N/A	N/A
Arable (Local Value)	Habitat loss (Lodge Cottages, The Reception and The Offices, Bittesby Farm)	Habitat loss (Lodge Cottages and associated Bat Roost not included)	Permanent	Minor adverse – not significant	N/A	N/A	N/A	N/A
Intact hedgerow – species poor (Local Value)	Habitat loss Damage to habitat	Habitat loss Damage to habitat	Permanent	Minor adverse – not significant	N/A	N/A	N/A	N/A
Defunct hedgerow – species poor (Local Value)	Habitat loss Damage to habitat	Habitat loss Damage to habitat	Permanent	Minor adverse – not significant	N/A	N/A	N/A	N/A
Dry ditch (Local Value)	Habitat loss Changes to water levels	Habitat loss Changes to water levels	Temporary and Permanent	Minor adverse –	N/A	N/A	N/A	N/A

Ecological Feature (Geographic Value Hybrid Application both with and without the DHL included)	Construction Phase Nature of Effect (with DHL)	Construction Phase: Nature of Effect (without DHL)	Const. Phase: Duration of Impact (with/without DHL)	Const. Phase: Significance of Effect (with/ without DHL)	Operational Phase Nature of Effect (without DHL)	Operational Phase Duration of Impact (with/without DHL)	Operation Phase: Signifi-cance of Effect (with/ without DHL)	Operational Phase Nature of Effect (without DHL)
	Pollution events	Pollution events		not significant				
Dense and Scattered scrub (Local Value)	Habitat loss	Habitat loss	Permanent	Minor adverse – not significant	N/A	N/A	N/A	N/A
Buildings and Structures (County Value)	Habitat loss	Habitat loss	Permanent	Moderate adverse – significant at a County level	N/A	N/A	N/A	N/A
Birds (Local Value)	Habitat loss Nest destruction/disturbance Noise and vibration	Habitat loss Nest destruction/disturbance Noise and vibration	Permanent and temporary	Minor adverse – not significant	Change in habitat composition	Permanent	Permanent	Negligible - Neutral
GCNs (County Value)	Habitat loss Kill/injure Change in water level (Services Farm) Pollution event (Services Farm)	Habitat loss Kill/injure Change in water level (Services Farm) Pollution event (Services Farm)	Permanent and temporary	Moderate adverse – significant at a County level	Habitat enhance-ment Pollution events Increased road traffic Roadside gulley pots	Permanent and temporary		Moderate adverse – significant at County level

Ecological Feature (Geographic Value Hybrid Application both with and without the DHL included)	Construction Phase Nature of Effect (with DHL)	Construction Phase: Nature of Effect (without DHL)	Const. Phase: Duration of Impact (with/without DHL)	Const. Phase: Significance of Effect (with/ without DHL)	Operational Phase Nature of Effect (without DHL)	Operational Phase Duration of Impact (with/without DHL)	Operation Phase: Signifi-cance of Effect (with/ without DHL)	Operational Phase Nature of Effect (without DHL)
Bats (County Value)	Habitat loss Kill/injure Noise, light and vibration	Habitat loss Kill/injure (excludes Lodge Cottages where three small roosts present) Noise, light and vibration	Permanent and temporary	Moderate adverse – significant at a County level	Habitat enhance-ment Lighting	Permanent	Permanent	Minor adverse – not significant
Badgers (Local Value)	Habitat loss Noise and vibration Sett damage/destruction	Habitat loss Noise and vibration Sett damage/destructio n	Permanent and temporary	Minor adverse – not significant	Change in habitat composition Increased road traffic	Permanent	Permanent	Minor adverse – not significant
Otter (Local Value)	Habitat loss Change in water levels Pollution events	Habitat loss Change in water levels Pollution events	Permanent	Minor adverse – not significant	Habitat enhance-ment and management Pollution	Permanent and temporary	Permanent and temporary	Minor adverse – not significant
Brown hare (Local Value)	Habitat loss Noise and vibration	Habitat loss Noise and vibration	Permanent and temporary	Minor adverse – not significant	N/A	N/A	N/A	N/A
Common Toad (Local Value)	Habitat loss Kill/injure Change in water level Pollution event	Habitat loss (excludes Mere Lane Lagoon, Pond 3, supporting large toad population)	Permanent and temporary	Minor adverse – not significant	Habitat enhance-ment Pollution events	Permanent and temporary	Permanent and temporary	Minor adverse – not significant

Ecological Feature (Geographic Value Hybrid Application both with and without the DHL included)	Construction Phase Nature of Effect (with DHL)	Construction Phase: Nature of Effect (without DHL)	Const. Phase: Duration of Impact (with/without DHL)	Const. Phase: Significance of Effect (with/ without DHL)	Operational Phase Nature of Effect (without DHL)	Operational Phase Duration of Impact (with/without DHL)	Operation Phase: Signifi-cance of Effect (with/ without DHL)	Operational Phase Nature of Effect (without DHL)
					Increased road traffic Roadside gulley pots			

10 CUMULATIVE IMPACTS

Introduction

10.1 The 55.41 ha site of the DHL Supply Chain scheme which was granted planning permission on 25 October 2016, lies fully within the boundary of the Hybrid planning application site. The main ES for the Hybrid planning application, submitted in October 2015 and updated with further information in February, March and April 2016, included a cumulative impact assessment (CIA) for the whole of that planning application – that is, an assessment of the cumulative environmental effects of what is referred to in this Addendum as the 'remainder of the Hybrid application' together with the DHL Supply Chain scheme.

10.2 The CIA for the whole of the Hybrid application also accounted for the cumulative environmental impact effects with 15 committed developments in the area (the list agreed with HDC) together with a second CIA that accounted for these 15 committed developments plus the proposals for symmetry park (as amended in November 2015).

Addendum to the CIA

10.3 Each addendum to the main ES that is set out here concludes, for the reasons set out above, that the cumulative environmental effects of the remainder of the Hybrid application with the permitted developments, including the DHL Supply Chain scheme and with symmetry park, will be the same as set out for the Hybrid application as a whole in the main ES.

10.4 The sole changes are that the remainder of the Hybrid development excluding the DHL Supply Chain site will have no further impact on the following:

- the former lodge to Bittesby House and Emmanuel Cottages, both non-designated heritage assets that are demolished by the DHL Supply Chain development;
- the setting of Ullesthorpe Mill, which will be screened by the planting scheme for DHL Supply Chain; and
- archaeological Assets A1-A3, A5, A6 and A10 that lie within the DHL Supply Chain site boundary, which have been preserved by record and archaeological Asset A4 which is now preserved in situ.

10.5 As the main ES sets out (October 2015, Chapter 13, paragraphs 13.4-13.17), the cumulative environmental effects during the construction phase for the whole of the Hybrid application (which includes the DHL Supply Chain scheme) with the other permitted developments are judged to be negligible and not significant. In the operational phase, the main ES considers the cumulative effects to be not adverse for any environmental factor save for Landscape and Visual, Traffic and Transport, and Heritage. In all case, the cumulative effects are considered to be not significantly adverse.

10.6 The main ES also concludes that the cumulative effects with the symmetry park proposals (in addition to the permitted developments) would not be significantly adverse. Although it is concluded that there will be significant sequential visual effects in the daytime on road users passing along the A5 during construction and in the early years of the development,

the combined effects are considered to be not significant in the mid-term.[20] Night-time sequential visual effects experienced by users from the A5 are considered to be not significant during construction or operation.

10.7 The DHL Supply Chain scheme will deliver improvement works to the Whittle junction (A426/A4303) that will improve the operation of the junction over the current and predicted (future) 'without development' conditions under all cumulative impact scenarios.

10.8 The remainder of the Hybrid development will deliver improvement works to the Gibbet Hill A426/A5 junction that will also improve the operation of the junction over the current and predicted (future) 'without development' conditions under all cumulative impact scenarios.

[20] See the amended conclusion in the update of ES Chapter 9 in the Clarifications and Further Information addendum that is also published on 1 November 2016. The addendum takes into account (amongst other things) a phasing plan for the planting mitigation that proposes to begin the planting alongside the A5 and in the north of the Hybrid site in the area closest to White House Farm in year 1 of the implementation of the remainder of the Hybrid application. Thus the planting mitigation in the northern part of the site will have some 4-7 years' growth by the time the construction in this area begins.

11 ADDENDUM TO THE SUMMARY OF RESIDUAL IMPACT

Introduction

11.1 The residual impacts are those effects that remain post-mitigation. Each addendum section contains a summary of the residual impacts of the remainder of the Hybrid development in both the construction and operation stages. Each has had regard both to the mitigation (and benefits) that will be delivered by the DHL Supply Chain development and to the mitigation (and benefits) that are proposed for the remainder of the Hybrid development.

Addendum to the Residual Impacts

11.2 The following summarises the changes (only) to the assessed residual impacts in the main ES that result when the DHL Supply Chain scheme is included in the baseline and only the residual impacts of the remainder of the Hybrid development are considered:

- Socio-economics:
  - 4,446 gross permanent FTE jobs created directly by the operation of the remainder of the Hybrid development, together with 1,422 temporary jobs during the construction period;
  - £220.7m annually in GVA during operation, plus £56m annually over the construction period.

  These and the other socio-economic benefits associated with the remainder of the Hybrid development remain, based on the significance criteria, 'Major Beneficial'.
- Traffic and transport:
  - The maximum increase in delay at the Cross in Hand junction will increase by 1.8 second per vehicle, a negligible impact;
  - The improvement scheme to the Gibbet Hill junction will lead to performance improvements that are a significant benefit;
  - The additional demand for bus services could lead to overcrowding that would be of moderate adverse significance, although depending on the commitments to be made by IDI Gazeley, the impact could be reduced and could potentially be beneficial, including for existing Magna Park employees; and

  Overall, though the direct impacts on cyclists and pedestrian amenity will be beneficial, when balanced against the increase in HGV movements, the residual impact on cyclists and pedestrians is negligible.
- Noise and vibration:

  Overall, the road traffic noise due to construction and operation is reduced, and remains negligible and not significant in the short and long term. There are no other changes to assessed noise levels during construction and operation.

- Landscape and visual
  - Overall, the remainder of the Hybrid development have a lesser impact in landscape and visual terms than the Hybrid as a whole.
  - The remainder of the Hybrid scheme is judged not to have significant landscape character effects by the mid-term, and to have a reduced and very limited significant residual visual effects in the mid to longer term.
- Air quality:
  - Overall, the impact of the remainder of the Hybrid development on its own is judged to have a lower impact on air quality than the Hybrid as a whole, with still not significant effects.
- Heritage and archaeology:
  - There will be no impact on Assets A1-A3, A5, A6 and A10 (as they will have preserved by historic record) Asset A4 (which has been preserved in situ), or on the Lodge and Emmanuel Cottages which are demolished by the DHL Supply Chain scheme.
  - There will be a positive impact on Assets A7, A8 and A9 from the removal of these assets from cultivation and the implementation of the landscape management plan.
  - The operational and residual impact upon the group value of the assets located on the ridge to the east of the DMV is considered to be large beneficial.
- Ecology and Nature Conservation
  - There will be no residual effects on non-statutory designated sites, habitats or fauna during the construction or operational phases of the remainder of the Hybrid application (which is no change to the main ES).

Conclusion

11.3 The permitted DHL Supply Chain scheme accounts for significant shares of the development proposed by the Hybrid application: 24.1% of the Zone 1 site area; 26.6% of the land allocated to distribution warehousing and 24% of the distribution floorspace; all of the highways works associated with Mere Lane and the A5 apart from the northern of the two new roundabouts; and almost half (48.3%) of the structural landscape and screening outwith the Hybrid's 42.32 ha Country Park and 28.12 ha Meadow.

11.4 The inclusion of the DHL Supply Chain scheme, with all its mitigation, within the baseline for the assessment of the environmental effects of the remainder of the Hybrid development results in reduced impacts on all environmental factors. The greatest changes are to the residual effects on the landscape and visual receptors and heritage and archaeological assets. There will be a large beneficial magnitude of change to the non-designated heritage assets that contribute to the significance of the DMV located on the ridge to the east of the DMV.

11.5 No other changes however are considered to be so significant as to change the overall judgments. While the remainder of the Hybrid development will result in changes with some adverse impacts, these need to be considered in the temporal and geographic context within which the impacts occur. None is considered to be of more than local significance and are considered acceptable.

11.6 Adverse impacts in the construction period – recognising that construction will be phased – will be short-lived and the overall significance will be low. Similarly, adverse impacts during the operation phase where these are judged occur in limited areas and considered overall to be not significant.

11.7 There are also traffic and socio-economic benefits that only the remainder of the Hybrid development will deliver:

- traffic:
  - Gibbet Hill improvements, which will improve the function of the junction over the projected 'without development' conditions; and
- socio-economic:
  - the social benefits[21] arising from the Country Park (health and well-being, helping to contributing to reducing the district-wide shortage of country parks);
  - the economic and social benefits arising from the Logistics Institute of Technology (first further and higher education institute in south west Leicestershire, skills in a growing, increasingly knowledge-based sector for which the area has competitive advantages, applied research in a sector under competitive pressures globally that is also critical to the UK economy), the Holovis expansion (jobs, small business growth in a high technology, knowledge-intensive sector), the Innovation Centre (small business growth, improved survival rates, commercial capture of research innovation), the Local Heritage Centre (education, community outreach, research), the Driver Training Centre (training in a sector of high skill shortages), the 140 HGV Park (for existing and new Magna Park occupiers, with indirect effects on and the Railfreight Shuttle) and the Railfreight Shuttle and associated terminal (on-demand service to increase the take-up of railfreight for existing and new occupiers whose sites offer no land for container storage, using no- and low-carbon traction vehicles to DIRFT and Rugby); and
  - the social and economic benefits[22] of the logistics cluster arising from the concentration of competing, inter-trading and complementary businesses, together

[21] In addition to the associated environmental benefits arising from the very significant increase in biodiversity and the heritage benefits of the preservation and management in perpetuity of the DMV and the archaeology assets that form part of its setting.

[22] That is, the social and economic benefits that are in addition to the environmental benefits that follow from this concentration and the pro-active optimisation of these benefits that are secured through the proactive management of the existing plus the extended Magna Park. The environmental benefits include, for example, the reduced resources needed to deliver the remainder of the Hybrid (making use of the existing Magna Park land, its highways, services farm

with the LIT and Innovation Centre, on a single site, at scale and under the pro-active management of IDI Gazeley to optimise and capture the cluster benefits (agglomeration economies).

and water attenuation systems and also of the further infrastructure that will be delivered by DHL Supply Chain, including the improvement works to the A426/A4303 junction and the works to Mere Lane and the A5 (with only the northern A5 roundabout remaining to be delivered by the remainder of the Hybrid).

About IDI Gazeley

IDI Gazeley is one of the world's leading investors and developers of logistics warehouses and distribution parks with 60 million square feet of premier assets under management and additional prime land sites to develop another 45 million square feet of distribution facilities near major markets and transport routes in North America, Europe and China.

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