

Dunsbury Hill Farm

Environmental Statement Addendum

June 2015

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Glossary of Abbreviations

Abbreviation	Definition
AADT	Annual Average Daily Traffic
ALC	Agricultural Land Classification
AOD	Above Ordnance Datum
AQMA	Air Quality Management Area
AQS	Air Quality Strategy
BGS	British Geological Survey
BGL	Below Ground Level
BS	British Standard
CEMP	Construction Environmental Management Plan
CIRIA	Construction Industry Research and Information Association
CPO	Compulsory Purchase Order
dB	Decibel
Defra	Department of Environmental, Food and Rural Affairs
DMRB	Design Manual for Roads and Bridges
EIA	Environmental Impact Assessment
ES	Environmental Statement
EC	European Community
EciA	Ecological Impact Assessment
FRA	Flood Risk Assessment
GCN	Great Crested Newts
GLVIA	Guidelines for Landscape and Visual Impact Assessment
GIS	Geographic Information Systems
GLVIA	Guidelines for Landscape and Visual Assessment
HBC	Havant Borough Council
HCC	Hampshire County Council
HGV	Heavy Goods Vehicle
HSI	Habitat Suitability Index
HRA	Habitats Regulation Assessment
Ha	hectare(s)
Km	kilometre(s)
LAQMTG	Local Air Quality Management Technical Guidance,
LCA	Landscape Character Assessment

Abbreviation	Definition
LVIA	Landscape and Visual Impact Assessment
m	metre(s)
m ²	square metre(s)
m ³	cubic metre(s)
MAGIC	Multi Agency Geographical Information for the Countryside
MDA	Major Development Area
NGR	National Grid Reference
NO ₂	Nitrogen Dioxide
NTS	Non-Technical Summary
PPG	Planning Policy Guidelines
PPS	Planning Policy Statements
RPG	Regional Planning Guidance
RSS	Regional Spatial Strategy
PCC	Portsmouth City Council
PCCHER	Portsmouth City Council Historic Environment Record
PUSH	Partnership for Urban South Hampshire
SFRA	Strategic Flood Risk Assessment
SINC	Site of Importance for Nature Conservation
SAC	Special Area of Conservation
SEEDA	South East England Development Agency
SPA	Special Protection Area
SPZ	Source Protection Zone
SSSI	Site of Special Scientific Interest
SUDS	Sustainable Drainage Systems
SWMP	Site Waste Management Plan
TA	Transport Assessment
ZVI	Zone of Visual Influence
WHO	World Health Organisation

Definitions

For ease of reference, the following terminology has been used throughout this Statement:

Term	Definition
The Site	Land area of the Proposed Development (see Figure 1.1).
Approved Development	The approved hybrid planning application and planning conditions. The application comprised an outline application for employment uses and a hotel with conference facilities and a detailed application for a new link road to Hulbert Road and a link road with bus-gate to Woolston Road; together with landscaping, infrastructure and associated works' on Dunsbury Hill Farm, Havant
S73 Application	Section 73 application to seek to vary planning Condition B6 (a) of planning application APP/12/0338 which restricts amount of B8 development.
Proposed amendment	Vary restriction on amount of B8 development.
B8	The Town and Country Planning (Use Classes) Order 1987 (as amended) categorises storage or distribution uses as Use Class B8, described as 'wholesale warehouses, repositories'.
Applicant	Portsmouth City Council (PCC)
Environmental Impact Assessment (EIA)	Assessment of the environmental effects of the Proposed Development.
ES (March 2012)	Environmental Statement produced to support the original planning application in 2012.
ES Addendum	This document.
TA	Transport assessment which accompanied the original planning application in 2012.

Term	Definition
Borough Council	Havant Borough Council
County Council	Hampshire County Council

1. Introduction

- 1.1 Planning consent was granted on 19th February 2014 by Havant Borough Council (HBC) under planning application reference APP/12/0338 for the development of Dunsbury Hill Farm in Havant to provide for a mixed use employment development comprising hotel and conferencing, B1 (a) B2 and B8 development. .
- 1.2 The consent permitted the development of 61,779m² of commercial industrial and employment space subject to a range of planning conditions. Condition B6 restricts the amount of B8 (Storage or Distribution) development to 20% or 12,365m².
- 1.3 In light of current economic conditions it is considered that the Site would be more attractive to the market and meet existing occupier demand within the region, if there was a lesser restriction on the amount of B8 development. As such, Portsmouth City Council is seeking to vary the current planning restriction on the amount of B8 floorspace that could be developed at Dunsbury Hill Farm.
- 1.4 This ES addendum accompanies a Section 73 planning application to seek to vary Condition B6 of APP/12/00338.
- 1.5 The condition and the purpose of Condition B6 is cited below taken from the planning decision notice as follows:
25) B6. Range of Uses
The development hereby approved shall not exceed the following totals;
a) 61,779sqm comprising a range of uses within Classes B1, B2, B8 of the Use Classes Order 1987 as amended.
Furthermore the B8 component shall not exceed 20% of this floorspace (12,356sqm)
and
b) Up to 5574sqm comprising a hotel with conference facilities.

Reason: To ensure that development can provide for a range of business and employment opportunities, including knowledge based businesses and a quality hotel with conference facilities, in accordance with policy CS18 of the Havant Borough Local Plan (Core Strategy) 2011 and policy AL1 of the Submission Version of the Havant Borough Local Plan (Allocations) December 2013, and the National Planning Policy Framework 2012.

Approved Development

- 1.6 The Site, a 33 hectare area of land is located to the west of Leigh Park, Havant. The Approved Development comprises the following principal elements:
- Employment uses (B1, B2 and B8) including an Enterprise Centre (46,450m²) in Phase 1;
 - A hotel with conference facilities (5,574m²);
 - Employment uses (B1, B2 and B8) (15,329m²) in Phase 2;
 - A new access junction off Hulbert Road;
 - A bus gate with Woolston Road;
 - A new west to east link road through the Site with a dedicated public transport link to connect the site to Leigh Park;
 - Retention of existing trees and hedgerows where possible;
 - Provision of a 150-180m wide landscaped gap between the A3(M) and the Proposed Development and east - west green finger providing landscape structure to the Site;
 - Maximum building heights.
- 1.7 The Site includes 20.2 hectares for employment uses and a hotel with conference facilities. The remainder of the Site will be

developed to provide a comprehensive landscape framework and supporting infrastructure including a new link road.

Proposed Amendment to Approved Development

- 1.8 The Section 73 application, the subject of this ES Addendum, seeks to vary the restriction imposed by Condition B6 (a) on the B8 component from 20% to 80%:

"61,779sqm comprising a range of uses within Classes B1, B2, B8 of the Use Classes Order 1987 as amended. Furthermore the B8 component shall not exceed 20% of this floorspace (12,356sqm)".

- 1.9 No other changes are proposed to indicative plot locations or sizes and wider site circulation demonstrated on approved 'Figure 4.4 Indicative Masterplan' submitted as part of APP/12/00338.

Scope, Methodology and Structure of the Addendum

- 1.10 The EIA methodology is described in the ES (March 2012) and in this Addendum where appropriate, the scope of this addendum is consistent with that of the original ES.
- 1.11 This document is structured in a manner consistent with the ES, 2012 and provides an addendum for each chapter.

Consultation

- 1.12 Initial discussions were had regarding the S73 application with Havant Borough Council at a meeting on 16 April 2015, officers from planning, highways, air quality and noise were present. The aim of the meeting was to seek views on the initial scoping of work required to accompany the S73 application. Overall it was a positive meeting with HBC receptive to the initial scoping of work in that the assessments which would need to be

reviewed and the impacts re-assessed being transport, air quality and noise. The following assumptions have been made for the S73 application:

- Modelling required for air quality and noise should initially be based on an envisaged 'worst case' scenario of 100% B8 development on the site.
- It was agreed that issues of water quality, landscaping and ecology can be scoped out.

2. Environmental Impact Assessment Process

- 2.1 Chapter 2 of the ES (March 2012) is not altered by this addendum.

3. Site Description and Context

Introduction

- 3.1 This chapter updates the planning policy context set out in the original Planning Statement, outlining relevant policy that has emerged since the original application was submitted.

Site Description.

- 3.2 The site description provided in the ES (March 2012) remains the same.

Planning History and Strategic Context

- 3.3 Since the consent was granted, PCC have progressed with the Approved Development:
- Two batches of pre-commencement planning conditions have been discharged.
 - The last remaining batch have been submitted to HBC and awaiting determination, predicted middle of June.
 - Verbal approval from the Environment Agency has been given over the proposed re-alignment of the Hermitage Stream.
 - PCC contractor is currently on site preparing the compound and carrying out enabling works such as tree stump removal and gas main diversion.
 - Once all the pre-commencement conditions have been discharged, full construction work will commence, with a predicted completion in March/April 2016.

- PCC is committed to constructing the access link road and it is fully funded through a combination of Solent LEP funding and PCC internal contribution.
- The wider development of DHF is also a key priority for the council, realising the key role it will play in job creation in the sub-region.
- PCC remain in advanced negotiations with a number of interested parties and will be confirming a route to market with members in the summer.

National Planning Context

- 3.4 In March 2012 the Government published the National Planning Policy Framework (NPPF) and, at the same time, cancelled the majority of the Planning Policy Guidance Notes and Planning Policy Statements.

- 3.5 A key aspect of NPPF is its presumption in favour of sustainable development in respect of plan-making and decision-taking. It explains that:

- there are three dimensions to sustainable development: economic, social and environmental (para 7);
- local authorities should positively seek opportunities to meet the development needs of their area;
- local plans should meet objectively assessed needs with flexibility to adapt;
- local authorities should approve development proposals that accord with the development plan without delay; and
- local authorities should grant permission where the development plan is absent, silent or relevant policies are out of date.

- 3.6 NPPF defines 12 core principles which emphasise that planning should:

	I. be genuinely plan-led;		
	II. be a creative exercise;		
	III. proactively drive and support sustainable economic development to deliver homes, businesses, infrastructure and local places needed;		
	IV. secure high quality design;		
	V. take account of the character of different areas;		
	VI. support the transition to a low carbon future;		
	VII. conserve and enhance the natural environment;		
	VIII. encourage the effective use of land;		
	IX. promote mixed use development;		
	X. conserve heritage assets;		
	XI. manage growth to promote non-car means of travel; and		
	XII. support local strategies in respect of health, social and cultural wellbeing.		
3.7	The NPPF states that economic development should be prioritised and supported, it should be encouraged through a flexible and responsive planning system and should not be over-burdened by controls, expectations and constraints. Within the core planning principles set out under paragraph 17 the NPPF identifies that planning should:		
	<i>“proactively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the country needs. Every effort should be made objectively to identify and then meet the housing, business and other development needs of an area and to respond positively to wider opportunities for growth...”</i>		
3.8	Paragraph 19 continues:		
		3.9	<i>“The Government is committed to ensuring that the planning system does everything it can to support economic growth. Planning should operate to encourage and not act as an impediment to sustainable growth....”</i> Paragraph 21 notes that: <i>“Investment in business should not be over-burdened by the combined requirements of planning policy expectations. Planning policies should seek to address potential barriers to investment....”</i>
		3.10	The third bullet point under paragraph 21 states that: <i>“support existing business sectors, taking account of whether they are expanding or contracting and, where possible, identify and plan for new or emerging sectors likely to locate in their area. Policies should be flexible enough to accommodate the needs not anticipated in the plan and to allow a rapid response to changes in economic circumstances.”</i>
		3.11	The removal of condition B6 would be in accordance with the NPPF and, therefore, compliant with national planning policy.
			The Development Plan
		3.12	Changes to the Development Plan since the original planning application was submitted in 2012 include the revocation of the South East Plan and the adoption of Havant Borough Local Plan (Allocations) in 2014. The current Development Plan comprises: • The Havant Borough Local Plan (Core Strategy), March 2011; • The Adoption Version of Havant Borough Local Plan (Allocations), July 2014.
		3.13	The Havant Borough Local Plan (Allocations) refers to the Dunsbury Hill Farm as a strategic employment site in the Core Strategy.

- 3.14 The need to improve east-west transport links across the Borough between Havant and Waterlooville with a cross-borough public transport route is established in Policy CS20 of the Core Strategy. This will help to improve links between both existing and new homes, jobs and community facilities and key places to be served by this route include Dunsbury Hill Farm. Allocation Policy AL5 seeks to safeguard the Cross-Borough Bus Rapid Transport (BRT) Route to provide the required east-west transport link.
- 3.15 The first phase opened in 2012 between Fareham and Gosport. The short term aim in Havant Borough includes an upgrade of the A3 ZIP corridor and other routes from both Waterlooville and Havant to Portsmouth and Southsea by 2016. The longer term project, up to 2026, will include a cross borough route from the Waterlooville MDA to Havant via Dunsbury Hill Farm and Leigh Park.

4. Description of the Approved Development

- 4.1 The development that was the subject of the hybrid planning application APP/12/0338 and approved in February 2014 comprises the following principal elements:
- Employment uses (B1, B2 and B8) including an Enterprise Centre (46,450m²) in Phase 1;
 - A hotel with conference facilities (5,574m²);
 - Employment uses (B1, B2 and B8) (15,329m²) in Phase 2;
 - A new access junction off Hulbert Road;
 - A bus gate with Woolston Road;
 - A new west to east link road through the Site with a dedicated public transport link to connect the site to Leigh Park;
 - Retention of existing trees and hedgerows where possible;
 - Provision of a 150-180m wide landscaped gap between the A3(M) and the Proposed Development and east - west green finger providing landscape structure to the Site;
- 4.2 The S73 application, which this ES Addendum accompanies, seeks to amend the Approved Development by varying the restriction on the amount of B8 use in Phase 1 and Phase 2 as set out in Condition B6 of the planning consent (the proposed amendment).
- 4.3 For assessment purposes, the EIA undertaken to support the original planning application (submitted in 2012) assumed the following split of employment uses: 40% B1 use; 40% B2 use

and 20% B8 use. In order to assess the impact of the proposed amendment, it has been agreed with the Planners at Havant Borough Council that we should assess the potential scenario of 100% B8 development as a 'worst case'.

- 4.4 The assumed change in floor areas can therefore be summarised as shown in Table 4.1 below.

Table 4-1 Gross Floor Area Assumptions

Land Use	Floor Area (sqm)	
	Approved Application	S73 Application
B1 (Business)	24,712	0
B2 (General Industrial)	24,712	0
B8 (Storage or distribution)	12,355	61,779
C1 – Hotel	5,574	5,574
TOTAL	67,353	67,353

- 4.5 For the purposes of this assessment the term 'Approved Development' refers to the approved planning application APP/12/0338 including the restriction on B8 use to 20% of total floorspace.

5. Evolution of the Scheme and Alternatives Considered

- 5.1 There is no change to the approach set out in the ES (March 2012) as a result of the changes to the Approved Development with regard to alternatives considered.

6. Land Use

Review of Proposed Amendment

- 6.1 Chapter 6 has been reviewed in light of the proposed amendment to the Approved Development and policy changes that have occurred since the date of the planning consent in 2014. This includes the deletion of reference to PPS1 and replacing with National Planning Policy Framework and the deletion of reference to the Regional Economic Strategy for South East England 2006 – 2016 which no longer forms part of the Development Plan.

Summary

- 6.2 The proposed amendment to the Approved Development and the revised assumption of the proportion of B8 development has been reviewed and considered together with changes in legislation and guidance and it is concluded that these result in no change to the overall assessment of the environmental impact associated with geology and soil as described in Chapter 6 of the ES (March 2012).
- 6.3 The mitigation measures and residual impacts detailed in Chapter 6 of the ES (March 2012) remain the same.

7. Socio-economic Considerations

Review of Proposed Amendment

- 7.1 Chapter 8 has been reviewed in light of the proposed amendment to the Approved Development and policy changes that have occurred since the date of the planning consent in 2014. This includes the deletion of reference to PPS4 and replacing with National Planning Policy Framework and deletion of reference to the Regional Economic Strategy for South East England 2006 – 2016 which no longer forms part of the Development Plan.

Socio-Economic Context Summary

- 7.2 The socio-economic context and update is provided in two other documents accompanying this application, the Planning Statement (PCC) and Market Perspective Report (Lambert Smith Hampton).

8. Transport and Accessibility

Review of Proposed Amendment

- 8.1 The information submitted as part of the original planning application has been reviewed and the assumptions that were used to derive the trip generation for the site revisited.

Identification and Assessment of Likely Effects

- 8.2 To review the impact of this change in land use assumptions, the trip generation effect during both the network peak periods and across the whole day have been assessed, including the percentage of Heavy Goods Vehicles (HGVs). These are reviewed in turn below, following a review of the trip rates.

Trip Rates

- 8.3 The TA that supported the original planning application included a VISSIM model assessment. The traffic flows for this model, in particular the forecast development scenarios, were derived from Transport for South Hampshire's (TfSH) Sub Regional Transport Model (SRTM), as developed and maintained by Systra (previously MVA Consultants). As such the trip generation was based on development assumptions associated with the master plan, which was determined by the Local Economic Impact Model (LEIM), based on a forecast of the number of jobs for each land use.

- 8.4 The TA included a validation of the trip generation between the SRTM model and trip rates derived from the TRICS trip generation database. These trip rates were based on sites selected in either suburban or edge of town locations within England (excluding Central London). Trip rates were derived for the individual land uses, namely B1 (business), B2 (general industrial) and B8 (storage and distribution). For the purpose of this assessment, these trip rates have been revisited.

- 8.5 The TRICS (7.2.1) database has been used for this revised assessment. The majority of the parameters used in the previous trip generation exercise were replicated, including the same regions, days of the week, site area, locations and population selections.

- 8.6 In order for the more recent surveys to be included, the only parameter that has been changed is the dates, which have been expanded to include all surveys up to 2015. This resulted in a number of new sites being identified that have been surveyed more recently, in addition to those that were also included in the 2012 TA (surveys up to 2011). For the B1 use, the 'B1 office' category has been used from TRICS; for the B2 use, 'B2 Industrial Unit' category has been used, and for the B8 use, 'B8 warehousing (commercial)' category has been used in-line with the 2012 TA. The reasons for these specific land use selections are due to them being the worst case in terms of trip generation, and in particular for B8 use, the worst case in terms of HGV generation.

- 8.7 The resultant trip rates are shown in Table 8.1 and Table 8.2 below for the AM and PM peak hours and Daily (18 Hour and 24 Hour) periods respectively. This includes the trip rates for both 'all vehicles' and for HGVs. The hotel use has been excluded from this assessment as this element of the development is not proposed to alter from the original TA and therefore does not affect the revised assessment.

Table 8-1 – Network Peak Hour Trip Rates (per 100 sqm)

Land Use	All Vehicles				HGVs			
	AM Peak		PM Peak		AM Peak		PM Peak	
	In	Out	In	Out	In	Out	In	Out
B1	1.698	0.186	0.155	1.506	0.003	0.002	0.000	0.002
B2	0.564	0.266	0.140	0.441	0.021	0.026	0.008	0.010
B8	0.225	0.107	0.093	0.225	0.059	0.055	0.041	0.036

Table 8-2 Daily Trip Rates (per 100sqm)

Land Use	All Vehicles				HGVs			
	18 Hour		24 Hour		18 Hour		24 Hour	
	In	Out	In	Out	In	Out	In	Out
B1	6.778	6.781	6.778	6.781	0.070	0.069	0.070	0.069
B2	4.108	4.240	4.108	4.240	0.322	0.327	0.322	0.327
B8	2.342	2.295	2.982	2.922	1.203	1.033	1.763	1.647

- 8.8 It is clear from the above tables that the trip rates for 'all vehicles' for the B8 land use are lower than for the B1 and B2 land uses in both the peak hours and daily time periods. For HGVs, the trip rates are highest for the B8 use.

Network Peak Impact

- 8.9 The network peak trip generation, based on the trip rates presented above, during the AM and PM peak hours is shown in the Table 8.3 and Table 8.4 for the approved scheme and the S73 application respectively, based on 100% B8 use, including for all vehicles and for HGVs.

Table 8-3 Network Peak Trip Generation – Approved Application

Land Use	All Vehicles				HGVs				% HGVs			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
B1	420	46	38	372	1	0	0	0	0%	1%	0%	0%
B2	139	66	35	109	5	6	2	2	4%	10%	6%	2%
B8	28	13	11	28	7	7	5	4	26%	51%	44%	16%
TOTAL	587	125	84	509	13	14	7	7	2%	11%	8%	1%

Table 8-4 Network Peak Trip Generation – S73 Application

Land Use	All Vehicles				HGVs				% HGVs			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
B1	-	-	-	-	-	-	-	-	-	-	-	-
B2	-	-	-	-	-	-	-	-	-	-	-	-
B8	139	66	57	139	36	34	25	22	26%	51%	44%	16%
TOTAL	139	66	57	139	36	34	25	22	26%	51%	44%	16%

- 8.10 It is clear from the above tables, considering the total flows, that a development comprising 100% B8 use would generate significantly less total vehicle trips during the AM and PM peak hours compared to the Approved Development. This is consistent with what is expected for B1 and B2 use, which have higher employment densities compared to B8 use, and therefore higher total trip generation during the typical network AM and PM peak hours. However the development comprising 100% B8 use would generate more HGV movements during the peak hours, with a corresponding increase in the proportion of HGVs.

- 8.11 Due to the different mixture of vehicle types between the Approved Development and a development which comprises 100% B8 use during the peak hours, it is informative to compare total PCUs (passenger car units) as a standard unit for all vehicles (whereby 1 PCU equals 1 car unit) for comparison. The total PCUs predicted for the Approved Development and the S73 application are presented in Table 8.5.

Table 8-5 Trip Generation – PCU Comparable Assessment

Land Use	Approved Application (PCUs)				S73 Application (PCUs)			
	AM Peak		PM Peak		AM Peak		PM Peak	
	In	Out	In	Out	In	Out	In	Out
B1	421	47	38	373	-	-	-	-
B2	146	74	37	112	-	-	-	-
B8	37	22	18	34	186	110	90	168
TOTAL	604	143	94	519	186	110	90	168

NB – factor of 2.3 applied to HGVs to convert to PCUs

8.12 Table 8-5 shows that overall total PCU generation is significantly higher in the Approved Development during both the AM and PM peak hours than a 100% B8 development.

8.13 The result of this assessment demonstrates that the impact during the network peak hours would be substantially less under the 100% B8 development than the Approved Development, and therefore the assessment undertaken in the TA in 2012 can be considered robust. It can therefore be concluded that the peak hour queues presented in the original TA from the VISSIM model assessment would not be any worse with 100% B8 use, and are most likely to be much reduced. This includes in particular queues on the slip roads of the A3 (M) where any likely increase would have been a concern for the Highways Agency (now Highways England).

8.14 Therefore the transport effects reported in the ES for the Approved Development can be considered a ‘worst case’ scenario and likely to be slightly reduced with a higher percentage of B8 development.

Daily Impact

8.15 B8 use has the potential to generate higher overall total trips through the day compared to the approved mixed B1/B2/B8 application. The effect of removing the restriction on the amount of B8 development on the daily trip generation has therefore also been assessed, and in particular the effect on the percentage of HGVs. The resulting total trips predicted during the 18 hour and 24 hour periods, based on the trip rates presented above, are

shown in Table 8.6 and Table 8.7 below for the Approved Development and 100% B8 development respectively.

Table 8-6 Daily Trip Generation – Approved Scheme

Land Use	All Vehicles				HGVs				% HGVs			
	18 Hour		24 Hour		18 Hour		24 Hour		18 Hour		24 Hour	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
B1	1,675	1,676	1,675	1,676	17	17	17	17	1%	1%	1%	1%
B2	1,015	1,048	1,015	1,048	80	81	80	81	8%	8%	8%	8%
B8	289	284	368	361	149	128	218	203	51%	45%	59%	56%
TOTAL	2,980	3,007	3,059	3,085	246	225	315	301	8%	7%	10%	10%

Table 8-7 Daily Trip Generation – S73 Application

Land Use	All Vehicles				HGVs				% HGVs			
	18 Hour		24 Hour		18 Hour		24 Hour		18 Hour		24 Hour	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
B1	-	-	-	-	-	-	-	-	-	-	-	-
B2	-	-	-	-	-	-	-	-	-	-	-	-
B8	1,447	1,418	1,842	1,805	743	638	1,089	1,018	51%	45%	59%	56%
TOTAL	1,447	1,418	1,842	1,805	743	638	1,089	1,018	51%	45%	59%	56%

8.16 The results indicate that the daily HGV trip generation would be higher in a 100% B8 development. This results in an increase in the percentage of HGVs from approximately 8% to 48% across the 18 hour period and 10% to 58% across the 24 hour period. However, the total daily vehicle trip generation would be lower in the 100% B8 development than the Approved Development, with the Approved Development generating approximately double the trips.

8.17 Therefore the transport effects reported in the ES for the Approved Development can be considered a ‘worst case’ scenario

and are likely to be slightly reduced with increased B8 development.

AADT / AAWT Traffic

- 8.18 The results of the daily assessment have been used to provide revised AADT (24 hour) and AAWT (18 hour) traffic numbers for the respective air and noise quality assessments. These traffic flows were originally derived from the SRTM Model in 2012. A factoring approach has been adopted to adjust them in line with the revised assessment, based on change in overall total flow and change in percentage HGVs.

Summary

- 8.19 As a 'worst case' assessment it has been agreed to assess the potential scenario of 100% B8 employment use rather than a mix of B1, B2 and B8.
- 8.20 The assessment has been based on trip rates for the respective land uses that have been updated to include most recent surveys. The resulting trip generation exercise has shown that the peak hour trip generation would be considerably lower for the 100% B8 development than the Approved Development. Whilst HGV volumes are predicted to be higher in the 100% B8 development, the overall volume in PCUs remains highest in the Approved Development. This therefore demonstrates that the assessment carried out in TA in 2012, including the associated VISSIM model assessment, is robust, and remains a worst case assessment, for the purposes of this S73 application.
- 8.21 Furthermore, the daily trip generation exercise demonstrated that daily (both 18 hour and 24 hour) total vehicle trips would be reduced in the 100% B8 development compared to the Approved Development, although the volume of HGVs is predicted to increase. The revised 24 hour daily and 18 hour flows have been used for the respective air and noise quality assessments.
- 8.22 Overall therefore the transport effects reported in the ES for the Approved Development can be considered a 'worst case' scenario and likely to be slightly reduced with increased B8 development.

9. Air Quality

Review of Proposed Amendment

- 9.1 The assumption of 100% B8 development has resulted in a change in the traffic flows in both future years (2019 and 2026) which were assessed in the original ES (March 2012).
- 9.2 The proposed amendment is only expected to affect the Approved Development once it is operating. The proposed amendment is not, therefore, expected to alter the outcome of the effects on air quality during construction, which should not be significant, as concluded in the original ES, provided appropriate mitigation measures to reduce dust emissions are put in place.

Identification and Assessment of Likely Effects

- 9.3 As the proposed amendment is only expected to affect the Approved Development once it is operating, an air quality assessment was undertaken to determine estimated changes in pollutant concentrations at receptors within 200 metres of affected roads once the development is operational.
- 9.4 Since the time the ES was produced, however, revisions have been made to some of the tools used in air quality assessment such as the mapped background pollutant concentrations (used for adding to the modelled road increment to provide total concentrations at a receptor), and the NO_x to NO₂ conversion spreadsheet. In addition, the Environmental Protection UK (EPUK) planning guidance used in the ES to assist with determining air quality effects from developments¹, and which provides advice on determining the magnitude and significance of an impact, has recently been revised².

¹ Development Control: Planning for Air Quality, Environmental Protection UK, April 2010 available at http://www.iaqm.co.uk/text/guidance/epuk/air_quality_guidance.pdf

² Revised 2015 planning guidance from EPUK and Institute of Air Quality Management (IAQM) available at <http://www.iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf>

- 9.5 The air quality assessment was therefore revised for all scenarios to take into account the updated tools and guidance to ensure the results were robust.

Methodology

- 9.6 The Highways Agency's Design Manual for Roads and Bridges (DMRB) screening model³ was used to estimate pollutant concentrations at the same receptors as in the ES. Pollutant concentrations were also modelled at the Ramblers Way diffusion tube site to allow a comparison of modelled and measured concentrations, as in the ES.
- 9.7 The method employed in this Addendum is the same as that in the ES, other than revisions to the background concentrations⁴ and the NO_x to NO₂ conversion (now version 4.1)⁵ as noted above.

The revised traffic data used in the assessment is provided in

³ Available at <http://www.standardsforhighways.co.uk/ha/standards/guidance/air-quality.htm>

⁴ Available at <http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html>

⁵ <http://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html#NOXNO2calc>

9.8 Table 9-1 and Table 9-2 below.

Table 9-1 – Traffic Data Used in the Assessment (2011 and 2019)

Road Link	2011 AADT	2011 HDV%	2019 DM AADT	2019 DM HDV%	2019 P1 AADT	2019 P1 HDV %	Avg Speed (km/hr)
Hulbert Road North of Site	15342	1.3	15038	5.6	15389	6.8	59
Hulbert Road South of Site	15342	1.3	15038	5.6	16118	9.1	59
Purbrook Way between A3(M) and ASDA Roundabout	24036	2.2	26011	1.1	27216	3.6	43
Purbrook Way between College Road and A3(M)	21357	2.2	20231	1.9	20659	3.0	52
Hulbert Road between Tempest Avenue and A3(M)	32107	3.3	33747	2.5	33644	2.3	58
Purbrook Way between B2150 and Linkenholt Way	18844	2.5	34168	1.9	34247	2.0	46
Hulbert Road between Newbarn Road and Willowdene Close	8709	2.1	7903	2.4	8089	3.6	46
A3(M) North of J3	53397	5.9	66558	3.5	66422	3.4	111
A3(M) Between J3 and J4	59278	5.8	71286	3.2	71976	3.7	107
A3(M) South of J4	78369	5.2	91039	2.9	92029	3.5	107
A3(M) J3 Southbound offslip	5607	2.8	3912	6.3	3947	6.8	91
A3(M) J3 Northbound offslip	9195	3.1	7863	3.8	8235	6.3	83
A3(M) J3 Southbound onslip	8013	1.2	8209	1.2	8455	2.9	74
A3(M) J3 Northbound onslip	7004	5.2	7176	5.2	7044	4.2	74
A3(M) J4 Southbound onslip	9407	2.6	11213	0.8	11427	1.9	74
A3(M) J4 Northbound offslip	9664	2.4	10712	1.8	10837	2.5	85

Table 9-2 – Traffic Data Used in the Assessment (2026)

Road Link	2026 DM AADT	2026 DM HDV %	2026 P1&P2 AADT	2026 P1&P2 HDV %	Avg Speed (km/hr)
Hulbert Road North of Site	15520	5.7	16138	7.7	59
Hulbert Road South of Site	15520	5.7	16947	10.1	59
Purbrook Way between A3(M) and ASDA Roundabout	28480	1.0	29098	2.2	43
Purbrook Way between College Road and A3(M)	21592	1.9	21649	2.0	52
Hulbert Road between Tempest Avenue and A3(M)	34526	2.5	34334	2.2	58
Purbrook Way between B2150 and Linkenholt Way	35870	2.1	35918	2.2	46
Hulbert Road between Newbarn Road and Willowdene Close	9209	2.2	9022	2.8	46
A3(M) North of J3	70015	3.6	69857	3.4	111
A3(M) Between J3 and J4	74259	3.2	74934	3.7	107
A3(M) South of J4	95123	2.9	96112	3.4	107
A3(M) J3 Southbound offslip	4141	6.3	4169	6.6	91
A3(M) J3 Northbound offslip	8046	3.8	8421	6.2	83
A3(M) J3 Southbound onslip	8293	1.4	8565	3.2	74
A3(M) J3 Northbound onslip	7597	5.3	7498	4.6	74
A3(M) J4 Southbound onslip	12791	0.8	13068	2.0	74
A3(M) J4 Northbound offslip	10568	1.8	10654	2.3	85

- 9.9 The background concentrations used in the assessment are provided in Table 9-3.

Table 9-3 – Background Concentrations ($\mu\text{g}/\text{m}^3$) Used in the Air Quality Assessment

	2011		2019		2026	
Receptor	NO ₂	PM ₁₀	NO ₂	PM ₁₀	NO ₂	PM ₁₀
1	19.8	17.9	16.9	16.4	15.1	15.9
2	19.8	17.9	16.9	16.4	15.1	15.9
3	21.3	18.4	18.2	16.8	16.3	16.3
4	23.2	19.1	19.6	17.4	17.4	17.0
5 (Diffusion Tube at Ramblers Way)	17.1	-	-	-	-	-

Results

- 9.10 The comparison of modelled annual mean NO₂ concentrations at the diffusion tube site in Ramblers Way for the 2011 base year is shown in Table 9-4. The modelled NO₂ concentration is within 1% of the monitored concentration, indicating that the model is performing well, with no need to adjust the results.

Table 9-4 – Comparison of Annual mean NO₂ concentrations ($\mu\text{g}/\text{m}^3$) at Ramblers Way Diffusion Tube Site (2011)

Monitored Total NO ₂	Modelled Total NO ₂	Difference % [(modelled – monitored) /monitored] x100
23.0	22.8	-0.9

- 9.11 Results for the receptors are provided in

Table 9-5 for annual mean NO₂ concentrations, and in Table 9-6 and Table 9-7 for comparison with PM₁₀ air quality criteria (annual and daily mean). Concentrations in all cases were well below relevant air quality criteria.

Table 9-5 – Annual Mean NO₂ concentrations (µg/m³)

Receptor	Base (2011)	2019 DM	2019 P1	2019 P1 minus DM	2026 DM	2026 P1&P2	2026 P1&P2 minus DM
1	26.4	21.6	22.2	0.6	19.7	20.3	0.6
2	24.5	20.3	20.4	0.1	18.4	18.5	0.1
3	25.1	22.0	22.4	0.4	20.1	20.5	0.4
4	29.1	23.8	23.9	0.1	21.5	21.7	0.2
Air quality criterion is 40 µg/m ³							

Table 9-6 – Annual Mean PM₁₀ concentrations (µg/m³)

Receptor	Base (2011)	2019 DM	2019 P1	2019 P1 minus DM	2026 DM	2026 P1&P2	2026 P1&P2 minus DM
1	19.6	17.7	17.8	0.1	17.3	17.4	0.1
2	19.2	17.4	17.4	<0.1	17.0	17.0	<0.1
3	19.3	17.6	17.7	0.1	17.2	17.3	0.1
4	20.7	18.8	18.8	<0.1	18.4	18.5	0.1
Air Quality Criterion is 40 µg/m ³							

Table 9-7 – Number of Days PM₁₀ Concentrations >50 µg/m³

Receptor	Base (2011)	2019 DM	2019 P1	2019 P1 minus DM	2026 DM	2026 P1&P2	2026 P1&P2 minus DM
1	3	1	1	<1	1	1	<1
2	2	1	1	<1	1	1	<1
3	3	1	1	<1	1	1	<1
4	4	2	2	<1	2	2	<1
Air Quality Criterion: 24-hour mean concentration should not exceed 50 µg/m ³ more than 35 times a year							

9.13 According to the revised 2015 EPUK/IAQM planning guidance, the magnitude of the changes is still considered to be negligible, and not significant with 100% B8 development.

Summary

9.14 The revised air quality assessment has shown that the revised assumption of the proportion of B8 development has a negligible and not significant effect on local air quality. This negligible effect was predicted for the Approved Development as such, an unrestricted site where 100% of the employment use is B8, will result in the same negligible effects on air quality and its receptors.

9.12 According to the 2010 EPUK criteria, the changes in NO₂ and PM₁₀ concentrations were shown to be small or imperceptible in all cases. The significance of the effect is, therefore, considered to be negligible at all assessed receptors.

10. Noise and Vibration

Review of Proposed Amendment

- 10.1 The noise assessment of the Approved Development has been updated to take into account the changes in road traffic volumes, speed and composition on the local roads, as well as the changes within the Site, with 100% B8 use; plus the hotel and conferencing facilities, which remain as per the Approved Development.
- 10.2 In addition to the change in assumption on percentage of B8 use, a number of British Standards used in the previous assessment have been updated since the submission of the ES in 2012. Where necessary the assessment has been updated to include the methodologies and advice from the latest standards.

Identification and Assessment of Likely Effects

- 10.3 An update to the original ES, has been provided for each aspect of the noise section, in order to assess the impact of the 100% B8 development, plus any recent updates to British Standards. The baseline conditions have not been updated.

National Noise Policy

- 10.4 Updates to National Policy Guidance, which have been issued subsequent to the publication of the ES (March 2012), are summarised below.

Noise Policy Statement for England

- 10.5 The Noise Policy Statement for England (NPSE) applies to all forms of noise including environmental noise, neighbour noise and neighbourhood noise but does not apply to noise in the workplace. The Government recognises that the effective management of noise requires a co-ordinated and long term approach that encompasses many aspects of modern society.

- 10.6 The long term vision of Government noise policy is set out: Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development.

- 10.7 This long term vision is supported by three aims:

- avoid significant adverse impacts on health and quality of life;
- mitigate and minimise adverse impacts on health and quality of life; and
- where possible, contribute to the improvement of health and quality of life.

National Planning Policy Framework, 2012

- 10.8 The National Planning Policy Framework (NPPF) includes the following statements relating to noise and the requirement to take it into account in the planning process:
- 10.9 Section 109 indicates that *“The planning system should contribute to and enhance the natural and local environment by:*
- *preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability”.*
- 10.10 Section 123 indicates that *“Planning policies and decisions should aim to:*
- *avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development;*
 - *mitigate and reduce to a minimum other adverse impacts on health and quality of life arising from noise from new development, including through the use of conditions;*
 - *recognise that development will often create some noise and existing businesses wanting to develop in continuance of their business should not have unreasonable restrictions put*

on them because of changes in nearby land uses since they were established⁶; and

- *identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason."*

10.11 The NPPF does not therefore provide absolute limits on noise that are acceptable or unacceptable in a given situation. It does however, set out the need to use planning decisions, including through the use of conditions, to avoid or mitigate adverse impacts on health and quality of life resulting from noise.

Construction Noise Assessment

10.12 In 2014, BS 5228-1:2009+A1:2014, the 'Code of Practice for Noise and Vibration Control on Construction and Open Sites, Part 1 – Noise' was released, as an update to BS 5228-1:2009.

10.13 For the purposes of the updated assessment, the basis and input data used within the construction noise predictions have not changed. However, as part of the update, the example 1: ABC method, was revised. Within the ES (March 2012), the combined ambient and predicted construction noise were used for comparison with the threshold value, whereas the update uses the predicted construction levels alone.

10.14 Therefore revised construction noise limits have increased from 64dB to 65dB $L_{Aeq\text{ daytime}}$. This increase does not significantly alter the overall construction impact with the 100% B8 development.

10.15 At 10m from the Site, all activities could exceed 65 dB L_{Aeq} , and by up to 22 dB (A) resulting in 'major' noise impacts. However, it is expected that the noise levels generated by only a few individual activities would exceed this limit value within 50m of the construction activities; these are scrapers, graders, compactors and piling. The revised construction noise assessment has concluded that the overall construction impact with a 100% B8 development is the same as that reported in the main ES; resulting in a temporary, direct, negative residual effect with the stated mitigation measures implemented. Where these measures

are not possible or effective, the impact would be moderate at some properties.

10.16 The vibration assessment has not changed from the noise and vibration section of the ES and temporary, direct, negative residual effects are predicted with the 100% B8 development. Where these measures are not possible or effective, the impact would be moderate at some properties

Road Traffic Noise Assessment

The updated traffic flows for the 100% B8 development were provided for the baseline scenario (2019 and 2016), the expected Phase 1 opening year (2019 and 2016) and Phase 1 plus Phase 2 (2026). As with the ES, traffic flows were not available for the design year, due to the uncertainty of other future developments in the area.

⁶ The NPPF contains the caveat "Subject to the provisions of the Environmental Protection Act 1990 and other relevant law".

- 10.17 Table 10-1 does not include the %HGV and speed information; however, the noise predictions did take these into account.

Table 10-1 - Traffic Noise Predictions

Road	Section	Direction	Total Number of Vehicles- AAWT 18 hr					Predicted Basic Noise Level at 10m from the Road (dB)					Noise Differences		
			Baseline 2019	2019 with Phase 1	Baseline 2026	2026 with Phase 1	2026 with Phase 1&2	Baseline 2019	2019 with Phase 1	Baseline 2026	2026 with Phase 1	2026 with Phase 1&2	Baseline versus Phase 1- 2018	Baseline versus Phase 1- 2026	Baseline versus Phase 1 and 2- 2026
Hulbert Road	North of Site	Northbound	11467	11481	11571	11785	11710	70.2	70.5	70.4	70.8	70.8	0.3	0.6	0.6
		Southbound	4114	4398	4516	4838	4900								
Hulbert Road	South of Site	Northbound	11467	11856	11571	12135	12080	70.2	71.0	70.4	71.3	71.4	0.8	1.1	1.2
		Southbound	4114	4634	4516	5106	5209								
Purbrook Way	between A3(M) and ASDA Roundabout	Westbound	12122	12737	14188	14445	14552	70.1	70.9	70.5	70.7	70.9	0.8	0.6	0.8
		Eastbound	14688	15074	15168	15269	15317								
Purbrook Way	between College Road and A3(M)	Westbound	9914	10163	10541	10583	10599	70.3	70.6	70.6	70.6	70.6	0.3	0.3	0.3
		Eastbound	11731	11852	12558	12570	12549								
Hulbert Road	between Tempest Avenue and A3(M)	Westbound	18271	18198	18455	18371	18320	73.1	73.1	73.2	73.2	73.1	0.0	0.1	0.0
		Eastbound	16835	16822	17462	17410	17435								
Purbrook Way	between B2150 and Linkenholt Way	Westbound	19754	19792	20715	20744	20848	71.8	71.8	72	72.0	72.1	0.0	0.2	0.3
		Eastbound	15510	15538	16306	16196	16212								
Hulbert Road	between Newbarn Road and Willowdene Close	Northbound	5062	5120	6241	6177	5997	65.6	66.0	66.3	66.2	66.3	0.4	0.6	0.7
		Southbound	3207	3306	3391	3474	3478								
A3(M)	North of J3	Northbound	34366	34248	36704	36608	36572	81.4	81.4	81.7	81.6	81.6	0.0	0.2	0.2
		Southbound	34025	34030	35238	35247	35239								
A3(M)	Between J3 and J4	Northbound	35037	35399	37084	37312	37404	81.4	81.5	81.5	81.7	81.7	0.1	0.3	0.3
		Southbound	38513	38724	39525	39726	39765								
A3(M)	South of J4	Northbound	46089	46553	47912	48181	48301	82.4	82.5	82.6	82.7	82.7	0.1	0.3	0.3
		Southbound	48534	48900	50956	51294	51396								
A3(M) J3	Southbound offslip	Southbound	4212	4242	4459	4479	4483	67.9	68.0	68.1	68.0	68.2	0.1	0.3	0.3
	Northbound offslip	Northbound	8468	8791	8665	8914	8990	69.7	70.2	69.8	70.2	70.2	0.5	0.5	0.6
	Southbound onslip	Southbound	8838	9052	8929	9120	9165	68.5	68.9	68.6	68.9	68.9	0.4	0.4	0.5
	Northbound onslip	Northbound	7727	7613	8181	8134	8095	68.5	68.3	68.8	68.3	68.7	-0.2	0.2	0.1
A3(M) J4	Southbound onslip	Southbound	11658	11837	13298	13457	13531	69.6	69.9	70.2	69.9	70.4	0.3	0.8	0.9
	Northbound offslip	Northbound	11444	11551	11290	11335	11364	71.1	71.2	71.0	71.2	71.1	0.1	0.0	0.0

10.18 The resultant noise changes were predicted to be negligible (less than 1 dB (A)) on all of the roads when comparing the Baseline with the Phase 1 traffic 2019. In 2026, the noise changes were also negligible for all roads, other than Hulbert Road, when comparing the Baseline 2019 with the 2026 Phase 1, and Phase 1 and 2 traffic data.

10.19 Hulbert Road, South of the Site, was predicted to be 1.1 and 1.2dB higher, a minor impact, with Phase 1, and Phase 1 and Phase 2 consecutively. However, Hulbert Road is not a residential road and would not affect noise sensitive properties. Also, due to the other busy local roads near to the scheme, changes of this magnitude are unlikely, and therefore a minor increase in noise on this section of road is not significant. Negligible effects are therefore predicted for the 100% B8 development, as with the Approved Development in terms of road traffic impacts.

Impact of Traffic on the Proposed Development

10.20 The ES (March 2012) identified the proposed hotel as the most noise sensitive building on the Site; where other noise sensitive buildings may include offices, which are less sensitive and sited further from the A3 (M).

10.21 However, in BS8233:2014 'Guidance on sound insulation and noise reduction for buildings' was released in 2014. As with the previous iteration of the standard, the main text suggests that noise levels within hotel bedrooms ought to be the same as limits for residential dwellings, however the standard also provides specific advice for hotels in Annex H, and example criteria which have been adopted by some hotel chains.

Table 10-2 - Example Indoor Ambient Noise Level Ranges for Hotel Bedrooms

Period	Noise level
Daytime (07:00 – 23:00 hrs)	30 – 40 dB $L_{Aeq,1hour}$
Night-time (23:00 – 07:00 hrs)	25 – 35 dB $L_{Aeq,1hour}$
Night-time (23.00 – 07.00 hrs)	45 – 55 dB L_{Amax}

10.22 The daytime impact of noise from the A3 (M), has been predicted at the hotel, with the Approved Development 2026 (Phase 1 and 2); this was predicted to be 69dB $L_{A10-18hr}$, or 67dB L_{Aeq} .

10.23 In order to achieve internal bedroom noise levels, which are within example noise level ranges provided within BS8233 (30 to 40dB $L_{Aeq, daytime}$) noise levels outside the hotel would need to be less than 73dB during the day; assuming a closed thermally double glazed window set in a brick/block wall. Therefore, it should be possible to achieve these noise levels within the bedrooms.

10.24 At the design stage, it is expected that this building could be built to acoustic specifications which would improve the internal noise level within the bedrooms, and the internal layout could be designed such that the windows overlook the quietest facade of the building, avoiding service areas.

10.25 As in the ES, it has been assumed that the proposed bus gate to the East of the Site would prevent traffic using the development as a cut through, to access Leigh Park. Therefore, it is expected that the number of vehicles along the access road will reduce with distance into the Site.

10.26 As in the ES, neutral impacts are predicted for the 100% B8 development in terms of impact of traffic.

Night Time Site Access

10.27 The noise from night time lorry deliveries has been predicted, but with the assumption that all units are B8 use and that all of the proposed B8 sites may accept 24hr deliveries.

10.28 In order to estimate the noise from the delivery lorries, the assessment used the brown book, 'A Guide to Measurement and Prediction of the Equivalent Continuous Sound Level L_{eq} ' (1978), as a reference for the L0 (equivalent to the L_{Amax} for our purposes). This was predicted to be 81dB, from the noisiest (4 axle) lorry at low speed, and at 7.5m distance from the source.

- 10.29 The distance from the nearest residential property to the middle of the entrance to closest units in Phase 1 and Phase 2 was predicted using the masterplan provided. The L_{Amax} of one delivery vehicle at the nearest residential properties were predicted as follows in Table 10-3;

Table 10-3 – Predicted L_{Amax} from Delivery Lorries at Night

B8 Plot, Phase	Distance to Nearest Noise Sensitive Property	Noise Attenuation over Soft Ground	Predicted L_{Amax} from Lorry at property	Predicted L_{Amax} within property
Nearest B8 in Phase 1	75m	23dB	58dB	43dB
Other units within Phase 1	At least 125m	29dB	52dB	37dB
Nearest B8 in Phase 2	125m	29dB	52dB	37dB

- 10.30 Therefore, where 42dB L_{Amax} is the approximate limit for sleep disturbance, it is expected that within Phase 2 deliveries from lorries will not exceed this limit. However, deliveries to the closest unit within Phase 1 is predicted to be just above the limit for sleep disturbance.
- 10.31 However, if the number of delivery lorries is not expected to exceed 10-15 lorries a night, the nearest residents to this unit in Phase 1 are less likely to suffer sleep disturbance.
- 10.32 The L_{Amax} noise levels from night time deliveries are likely to be masked somewhat by the road traffic noise from the A3 (M), however, should any occupants of the units require a large number of deliveries throughout the night, the cumulative impact of all deliveries, from all units, may still impact upon the nearest residential properties, as well as noise levels the proposed hotel.
- 10.33 As assessed the ES, it has been assumed that few, if any, buses and other heavy vehicles will continue past the entrance of the nearest Phase 1 B8 to the bus gate at night.
- 10.34 As assessed in the ES, permanent direct slight adverse effects are predicted for the 100% B8 development in terms of night

time deliveries on residential receptors; these effects are not significant.

Car Parks

- 10.35 The basis of the assessment of the car parks has not changed from the ES, although BS4142:2014 'Methods for rating and assessing industrial and commercial sound' was released in 2014, which includes a different approach to the assessment methodology.
- 10.36

- 10.37 Table 10-4 shows the predicted noise levels at noise-sensitive receivers adjacent to the car park. In the absence of other data, the predictions are based on 20 car movements within a typical 1 hour period using noise measurements taken on similar projects and assume no screening of noise receptor.
- 10.38 In accordance with BS4142, the rating noise level for the car park was calculated, using the predicted L_{Aeq} values plus a 3dB correction for intermittency and another 3dB correction for 'just audible' impulsivity. The rating values have been included in

Table 10-4.

- 10.39 The daytime average background L_{A90} noise levels at the nearest residential property were measured to be 50dB.

- 10.40 Table 10-4 shows that the BS4142 rating level from car park activities have been predicted to be more than 10 dB below the measured background noise levels in the area; a low impact.
- 10.41 If the number of car park movements was 40 or 80 per hour, the average L_{Aeq} noise level would be 3dB and 6dB higher respectively, and the levels would still be a low impact.
- 10.42 In addition to the BS4142 assessment, the maximum noise levels are below the limits for sleep disturbance (57dB L_{Amax}), and therefore the car parks are unlikely to cause sleep disturbance with reasonable usage at night.

Table 10-4 – Predicted noise levels from car park activities

Receptor	Approx. Nearest Plot Edge	Average noise level, dB $L_{Aeq,1hr}$	BS4142 Rating Level	Maximum noise level, dB L_{Amax}
New School, Leigh Park	115m to plot	26	32	39
Closest new property, Leigh Park	65m to plot	32	38	45
111 Ramsdale Lane	120m to plot	25	31	39
2-8 Larkwhistle Walk and 1-12 Hockham Court	75m to plot	30	36	44
Proposed Hotel	75m to adjacent plot Distance to own car park is unknown	30	36	44

- 10.43 It is possible that the level of noise from the car park may be improved further by the internal layout design of the properties and the design/location of the industrial units. The design of the hotel car park will need to be considered when designing the external layout of the car park.
- 10.44 As in the ES, neutral impacts are predicted for the 100% B8 development in terms of impacts of car park movements on residential receptors.

Plant Noise

The plant noise assessment has not changed from the noise and vibration section of the ES (March 2012). With noise conditions imposed which conform to BS4142:2014 and the target criteria imposed by Havant Borough Council.

Noise from Site Units

- 10.45 The Site Unit noise assessment has not changed from the noise and vibration section of the ES (March 2012),. Noise conditions should be imposed which make sure that location and

specification of the noise conform to BS4142:2014 and the target criteria imposed by Havant Borough Council. Permanent, direct, negative residual effects remain predicted with the revised scheme in terms of industrial and plant noise.

Cumulative Noise

- 10.46 The cumulative noise assessment has not changed from the noise and vibration section of the ES (March 2012).
- 10.47 No changes to the operation vibration section of the ES have been proposed.

Summary

- 10.48 This addendum to the noise and vibration section has been prepared to support the S73 application to vary the current planning restriction on the amount of B8 floorspace at the undeveloped Dunsbury Hill Farm site adjacent to the A3 (M).
- 10.49 The report considers the potential noise and vibration impacts of 100% B8 use, both during construction and operation.
- 10.50 The assessment was undertaken in accordance with a number of key standards and guidance documents, and with reference to the measured ambient noise levels in and around the study area. A summary of impacts and recommendations for 100% B8 use is provided below.

Construction Noise and Vibration

- 10.51 The construction noise assessment has been amended to take into consideration the updated BS5228 methodology. The proposal to remove the B8 restriction on usage does not affect the conclusions presented in the ES (March 2012) and the effects remain permanent slight adverse.

Operational Noise from the Proposed Site

- 10.52 The operational assessment was updated to include new traffic flow information for the 100% B8 use, as well as 100% B8 units on site. The proposed changes described in this amendment

are not expected to affect the impacts presented in the ES (March 2012).

Cumulative Noise Impact

- 10.53 The cumulative noise assessment has not changed from the noise and vibration section of the ES (March 2012).

11. Cultural Heritage

Review of Proposed Amendment

- 11.1 Chapter 11 has been reviewed in light of the proposed amendment to the Approved Development and policy changes that have occurred since the date of the planning consent in 2014. This includes the deletion of reference to Planning Policy Statement 5: Planning for the Historic Environment (DCLG 2010) and replacing with National Planning Policy Framework and deletion of reference to the Regional Economic Strategy for South East England 2006 – 2016 which no longer forms part of the Development Plan.
- 11.2 The relevant section of the NPPF with regard to the historic environment is Section 12 which deals with 'conserving and enhancing the historic environment' and requires that heritage assets are recognised as being an irreplaceable resource and should be conserved in a manner appropriate to their significance.
- 11.3 Paragraph 128 states that in determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Summary

- 11.4 The proposed amendment to the Approved Development and the revised assumption of the proportion of B8 development has been reviewed and considered together with changes in

legislation and guidance and it is concluded that these result in no change to the overall assessment of the environmental impact associated with geology and soil as described in Chapter 11 of the ES (March 2012).

- 11.5 The mitigation measures and residual impacts detailed in Chapter 11 of the ES (March 2012) remain the same.

12. Ground Conditions and Contamination

Review of Proposed Amendment

- 12.1 Chapter 12 has been reviewed in light of the proposed amendment to the Approved Development and policy changes that have occurred since the date of the planning consent in 2014.

Summary

- 12.2 The proposed amendment to the Approved Development and the revised assumption of the proportion of B8 development has been reviewed and considered together with changes in legislation and guidance and it is concluded that these result in no change to the overall assessment of the environmental impact associated with geology and soil as described in Chapter 12 of the ES (March 2012).
- 12.3 The mitigation measures and residual impacts detailed in Chapter 12 of the ES (March 2012) remain the same.

13. Water Resources and Flood Risk

Review of Proposed Amendment

- 13.1 Chapter 13 has been reviewed in light of the proposed amendment to the Approved Development and policy changes that have occurred since the date of the planning consent in 2014. This includes the deletion of the following legislation, policies and guidelines and the replacement with the NPPF:
- PPS1: Delivering Sustainable Development;
 - PPS9: Biodiversity and Geological Conservation;
 - PPS23: Planning and Pollution Control;
 - PPS25: Development and Flood Risk (guides assessment of flood risk and promotes SUDS; and
 - South East Plan, Cross Cutting Policies and Natural resource management policies.
- 13.2 The relevant section of the NPPF with regard to water resources and flooding is Section 10 'Meeting the challenge of climate change, flooding and coastal change' which requires under paragraph 100 that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere.

Summary

- 13.3 The proposed amendment to the Approved Development and the revised assumption of the proportion of B8 development has been reviewed and considered together with changes in legislation and guidance and it is concluded that these result in

no change to the overall assessment of the environmental impact associated with geology and soil as described in Chapter 13 of the ES (March 2012).

- 13.4 The mitigation measures and residual impacts detailed in Chapter 13 of the ES (March 2012) remain the same.

14. Landscape and Visual Assessment

Review of Proposed Amendment

- 14.1 Chapter 14 has been reviewed in light of the proposed amendment to the Approved Development and policy changes that have occurred since the date of the planning consent in 2014.

Summary

- 14.2 The proposed amendment to the Approved Development and the revised assumption of the proportion of B8 development has been reviewed and considered together with changes in legislation and guidance and it is concluded that these result in no change to the overall assessment of the environmental impact associated with geology and soil as described in Chapter 14 of the ES (March 2012).
- 14.3 The mitigation measures and residual impacts detailed in Chapter 14 of the ES (March 2012) remain the same.

15. Ecology

Review of Proposed Amendment

- 15.1 Chapter 15 has been reviewed in light of the proposed amendment to the Approved Development and policy changes that have occurred since the date of the planning consent in 2014. This includes the deletion of reference to PPS9: Biodiversity and Geological Conservation, 2005; and replacing with National Planning Policy Framework and the deletion of reference to the Regional Economic Strategy for South East England 2006 – 2016 which no longer forms part of the Development Plan.
- 15.2 The relevant section of the NPPF with regard to ecology is Section 11 'Conserving and enhancing the natural environment' requires the planning system to contribute to and enhance the natural and local environment by:
- Protecting and enhancing valued landscapes, geological conservation interests and soils;
 - Recognising the wider benefits of ecosystem services;
 - Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
 - Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and
 - Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Summary

- 15.3 The proposed amendment to the Approved Development, and the revised assumption of the proportion of B8 development, has been reviewed and considered together with changes in legislation and guidance and it is concluded that these result in no change to the overall assessment of the environmental impact associated with geology and soil as described in Chapter 15 of the ES (March 2012).
- 15.4 The mitigation measures and residual impacts detailed in Chapter 15 of the ES (March 2012) remain the same.

16. Waste and Recycling

Review of Proposed Amendment

- 16.1 Chapter 16 has been reviewed in light of the proposed amendment to the Approved Development and policy changes that have occurred since the date of the planning consent in 2014.

Summary

- 16.2 The proposed amendment to the Approved Development, and the revised assumption of the proportion of B8 development, has been reviewed and considered together with changes in legislation and guidance and it is concluded that these result in no change to the overall assessment of the environmental impact associated with geology and soil as described in Chapter 16 of the ES (March 2012).
- 16.3 The mitigation measures and residual impacts detailed in Chapter 16 of the ES (March 2012) remain the same.

17. Information for Habitats Regulations

Review of Proposed Amendment

- 17.1 Chapter 17 has been reviewed in light of the proposed amendment to the Approved Development and policy changes that have occurred since the date of the planning consent in 2014.

Summary

- 17.2 The proposed amendment to the Approved Development and the revised assumption of the proportion of B8 development, has been reviewed and considered together with changes in legislation and guidance and it is concluded that these result in no change to the overall assessment of the environmental impact associated with the habitats regulations assessment as described in Chapter 17 of the ES (March 2012)..

18. Cumulative Effects

Review of Proposed Amendment

- 18.1 Chapter 18 has been reviewed in light of the proposed amendment to the Approved Development and policy changes that have occurred since the date of the planning consent in 2014.
- 18.2 The proposed amendment to the Approved Development, and the revised assumption of the proportion of B8 development, does not have any significant implications for the findings of the section on Cumulative Effects.

19. Summary

Review of Proposed Amendment

- 19.1 Chapter 19 has been reviewed in light of the proposed amendment to the Approved Development and policy changes that have occurred since the date of the planning consent in 2014.
- 19.2 The proposed changes do not have any significant implications for the findings of the section on Summary of Effects.

Summary

- 19.3 The proposed amendment to the Approved Development outlined in Chapter 19 of the ES, and the revised assumption of the proportion of B8 development, has been reviewed and considered together with changes in legislation and guidance and it is concluded that they result in no change to the overall assessment of the environmental impact and overall there is no material change in the findings of this Addendum and those of the ES, 2012.

