

June 2023

London Luton Airport Expansion

Planning Inspectorate Scheme Ref: TR020001

Volume 5 Environmental Statement and Related Documents
5.03 Chapter 16 Noise and Vibration Figures 16.77 - 16.82

Application Document Ref: TR020001/APP/5.03

APFP Regulation: 5(2)(a)

The Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

London Luton Airport Expansion Development Consent Order 202x

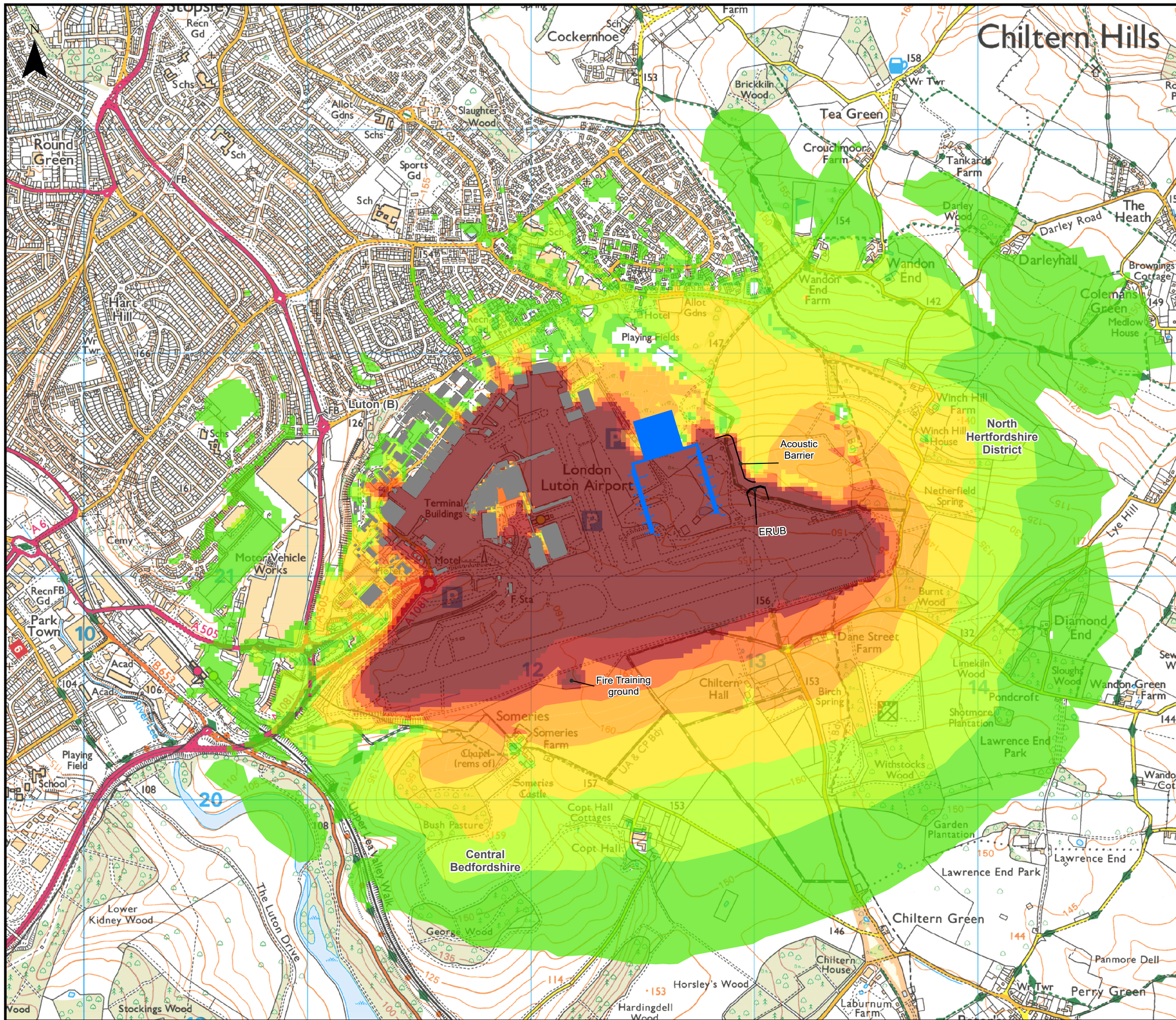
5.03 ENVIRONMENTAL STATEMENT CHAPTER 16 NOISE AND VIBRATION FIGURES 16.77 – 16.82

Regulation number:	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference:	TR020001
Document Reference:	TR020001/APP/5.03
Author:	Luton Rising

Version	Date	Status of Version
Issue 01	February 2023	Application issue
Revision 01	June 2023	Additional submissions (updated in response to Rule 9 letter)

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 All structure positions are indicative. The proposed works will be subject to detailed design development. The changes will be within limits of deviation specified in the Development Consent Order.

- Legend**
- Local Authority Boundaries
 - Airport Site Buildings
 - Proposed Terminal - Assessment Phase 2b

Ground Noise Contours in Decibels (dB) (2043 Do-Something Daytime LAeq,16h)

- LOAEL - 53 dB
- 54 dB - 56 dB
- 57 dB - 59 dB
- 60 dB - 62 dB
- SOAEL - 65 dB
- 66 dB - 68 dB
- ≥ UAEL

Lowest Observed Adverse Effect Level (LOAEL) = 51 dB
 Significant Observed Adverse Effect Level (SOAEL) = 63 dB
 Unacceptable Adverse Effect Level (UAEL) = 69 dB

ERUB = Engine Run Up Bay

Additional submissions (updated in response to Rule 9 letter)	LP	CSH	CS	22/06/23	P02
First Issue	LP	CSH	CS	31/01/23	P01
Revision History	Drawn	Checked	Approved	Date	Rev.

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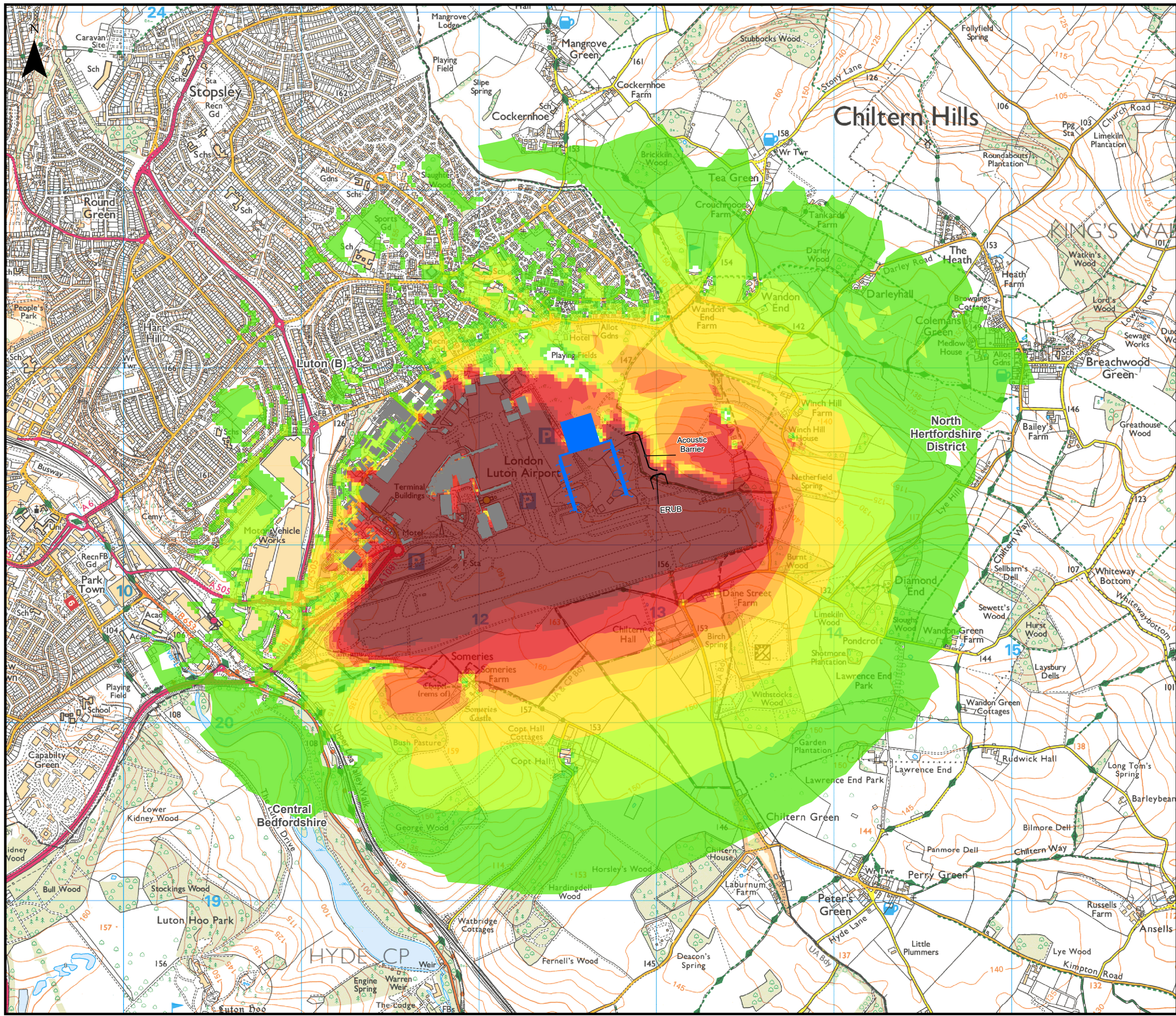
Drawing Title
 Figure 16.77
 Extent of 2043 Do-Something Daytime LAeq,16h Ground Noise Contours

Purpose of issue	Additional submissions (updated in response to Rule 9 letter)				Suitability
Drawn	Checked	Approved	Date	Scale	Size
LP	CSH	CS	22/06/23	1:16,000	A3

DCO Application Ref.	APFP Regulation	DCO Document Ref.
TR020001	APFP 5(2)(a)	TR020001/APP/5.03

Drawing Number	Revision
LLADCO-3C-AEC-00-00-DR-YE-0077	P02

Project - Phase - Originator - Asset/Zone - Sub Asset - Type- Discp. - Number



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Legend

- ERUB locations
 - Barrier locations
 - Airport Site Buildings
 - Proposed Terminal - Phase 2b
 - Local Authority Boundary
- Ground Noise Contours in Decibels (dB) (2043 Do-Something Night-time LAeq,8h)**
- LOAEL - 47 dB
 - 48 dB - 50 dB
 - 51 dB - 53 dB
 - 54 dB
 - SOAEL - 56 dB
 - 57 dB - 59 dB
 - 60 - 62 dB
 - ≥ UAEL

Lowest Observed Adverse Effect Level (LOAEL) = 45 dB
 Significant Observed Adverse Effect Level (SOAEL) = 55 dB
 Unacceptable Adverse Effect Level (UAEL) = 63 dB

ERUB = Engine Run Up Bay

Additional submissions (updated in response to Rule 9 letter)	LP	CSH	CS	22/06/23	P02
First Issue	LP	CSH	CS	31/01/23	P01
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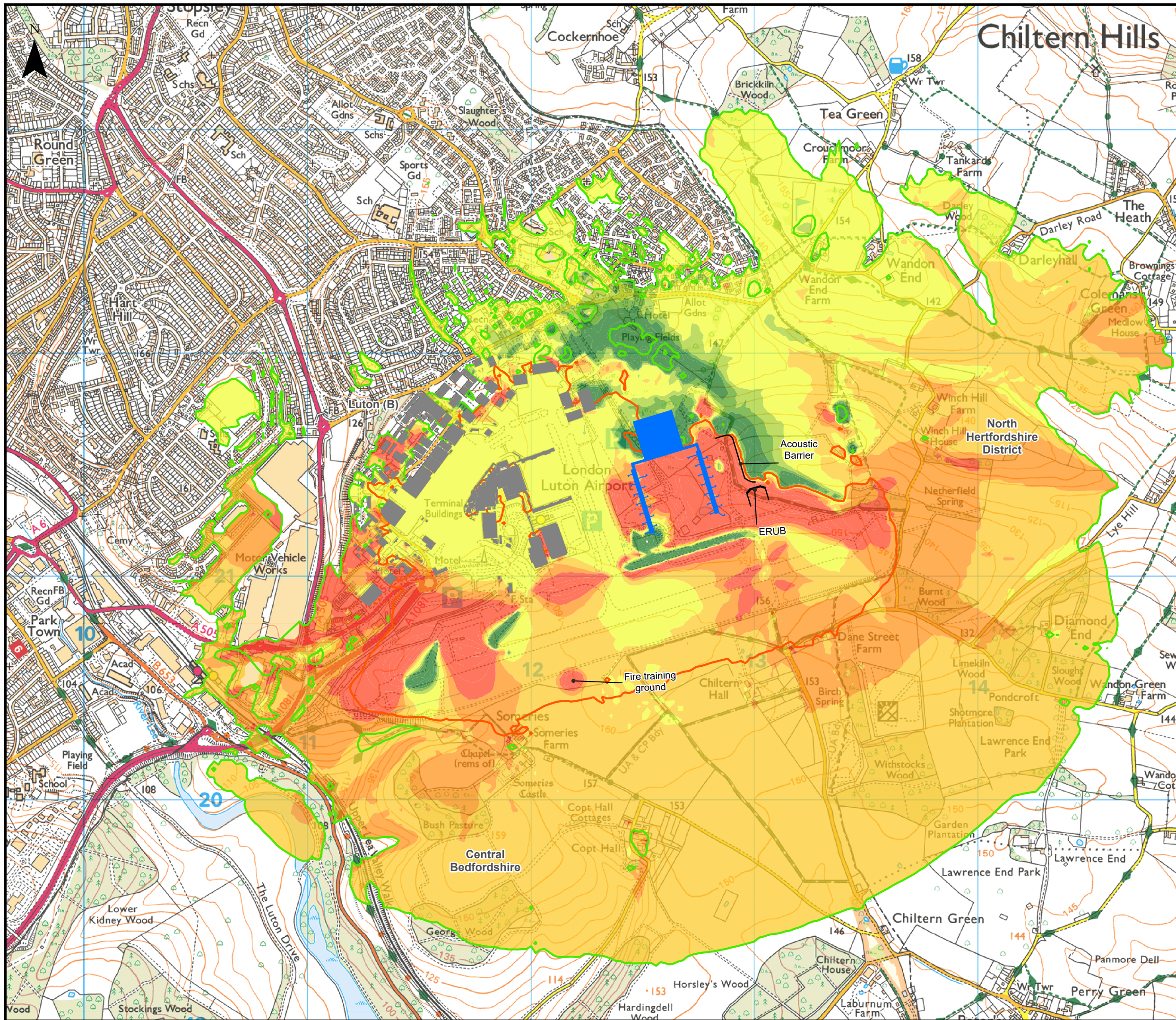
Drawing Title: Figure 16.78
 Extent of 2043 Do-Something Night-time LAeq,8h Ground Noise Contours

Purpose of issue				Suitability	
Additional submissions (updated in response to Rule 9 letter)				S2	
Drawn	Checked	Approved	Date	Scale	Size
LP	CSH	CS	22/06/23	1:20,000	A3

DCO Application Ref.	APFP Regulation	DCO Document Ref.
TR020001	APFP 5(2)(a)	TR020001/APP/5.03

Drawing Number	Revision
LLADCO-3C-AEC-00-00-DR-YE-0078	P02

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Legend

- Local Authority Boundaries
- Airport Site Buildings
- Proposed Terminal - Assessment Phase 2b

Change in 2043 Do-Something - Do-Minimum Daytime LAeq,16h Ground Noise Contours

- 3.0 dB or more increase
- 2.0 - 2.9 dB decrease
- 1.0 - 1.9 dB decrease
- 1.0 dB decrease - 1.0 dB increase
- 1.0 - 1.9 dB increase
- 2.0 - 2.9 dB increase
- 3.0 dB or more increase

Ground Noise Contours in Decibels (dB) (2043 Do-Something Daytime LAeq,16h)

- 51 dB - Lowest Observed Adverse Effect Level (LOAEL)
- 63 dB - Significant Observed Adverse Effect Level (SOAEL)

ERUB = Engine Run Up Bay

Additional submissions (updated in response to Rule 9 letter)	LP	CSH	CS	22/06/23	P02
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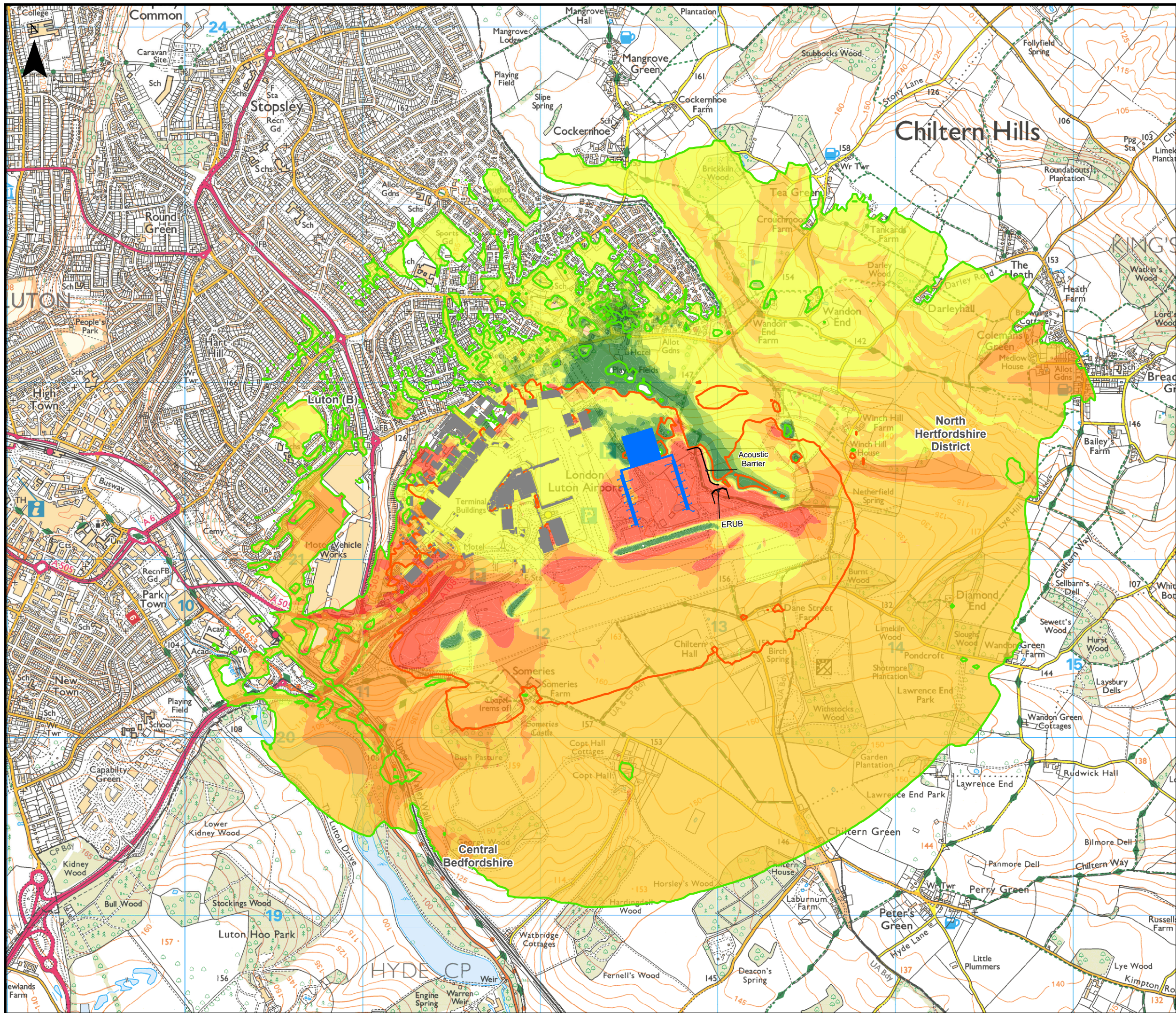
Drawing Title: Figure 16.79
 Change in 2043 Do-Something - Do-Minimum Daytime LAeq,16h Ground Noise Contours

Purpose of issue	Additional submissions (updated in response to Rule 9 letter)				Suitability
Drawn	Checked	Approved	Date	Scale	Size
LP	CSH	CS	22/06/23	1:16,000	A3

DCO Application Ref.	APFP Regulation	DCO Document Ref.
TR020001	APFP 5(2)(a)	TR020001/APP/5.03

Drawing Number	Revision
LLADCO-3C-AEC-00-00-DR-YE-0079	P02

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Legend

- Local Authority Boundaries
- Airport Site Buildings
- Proposed Terminal - Assessment Phase 2b

Change in 2043 Do-Something - Do-Minimum Night-time LAeq,8h Ground Noise Contours

- 3.0 dB or more decrease
- 2.0 - 2.9 dB decrease
- 1.0 - 1.9 dB decrease
- 1.0 dB decrease - 1.0 dB increase
- 1.0 - 1.9 dB increase
- 2.0 - 2.9 dB increase
- 3.0 dB or more increase

Ground Noise Contours in Decibels (dB) (2043 Do-Something Night-time LAeq,8h)

- 45 dB - Lowest Observed Adverse Effect Level (LOAEL)
- 55 dB - Significant Observed Adverse Effect Level (SOAEL)

ERUB = Engine Run Up Bay

Additional submissions (updated in response to Rule 9 letter)	LP	CSH	CS	22/06/23	P02
First Issue	LP	CSH	CS	31/01/23	P01
Revision History	Drawn	Checked	Approved	Date	Rev.

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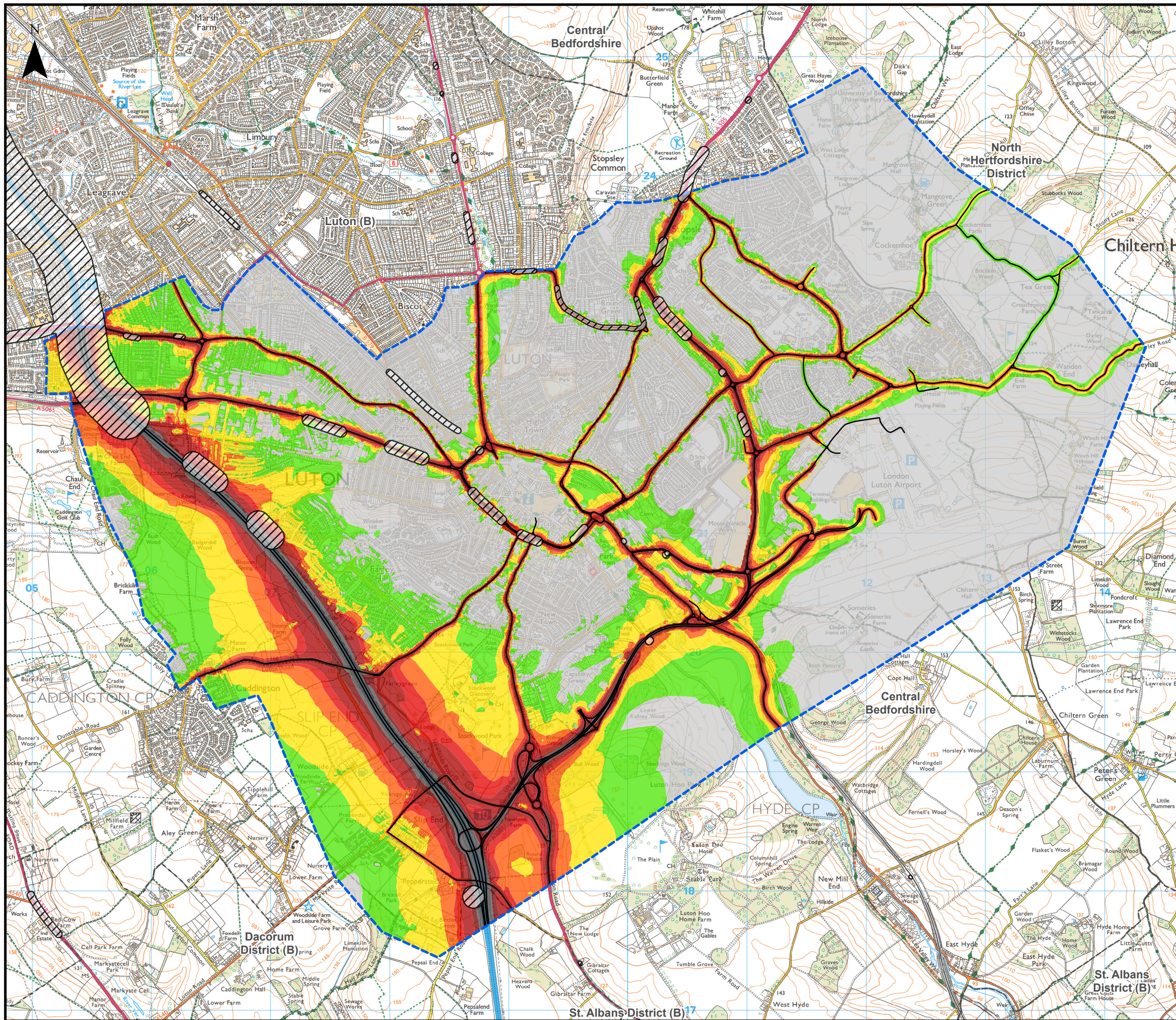
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Drawing Title
 Figure 16.80
 Change in 2043 Do-Something - Do-Minimum Night-time LAeq,8h Ground Noise Contours

Purpose of issue				Suitability	
Additional submissions (updated in response to Rule 9 letter)				S2	
Drawn	Checked	Approved	Date	Scale	Size
LP	CSH	CS	22/06/23	1:20,000	A3

DCO Application Ref.	APFP Regulation	DCO Document Ref.
TR020001	APFP 5(2)(a)	TR020001/APP/5.03

Drawing Number	Revision
LLADCO-3C-AEC-00-00-DR-YE-0080	P02
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Legend

- Local Authority Boundaries
 - Surface access noise study area
 - Road Traffic Noise Important Area
 - Road
- Surface Access Noise Contours in Decibels (dB) (2043 Do-Minimum Daytime LAeq,16h at 4m free-field)**
- Below LOAEL
 - LOAEL - ≤ 55
 - > 55 - ≤ 60
 - > 60 - ≤ SOAEL
 - > SOAEL - ≤ 65
 - > 65 - ≤ 70
 - > 70 - ≤ UAEL
 - Above UAEL

Lowest Observed Adverse Effect Level (LOAEL) = 50 dB
 Significant Observed Adverse Effect Level (SOAEL) = 63 dB
 Unacceptable Adverse Effect Level (UAEL) = 74 dB

Additional submissions (updated in response to Rule 9 letter)	HW	CSH	CS	16/06/23	P02
First Issue	HW	CSH	CS	16/06/23	P01
Revision History	Drawn	Checked	Approved	Date	Rev.

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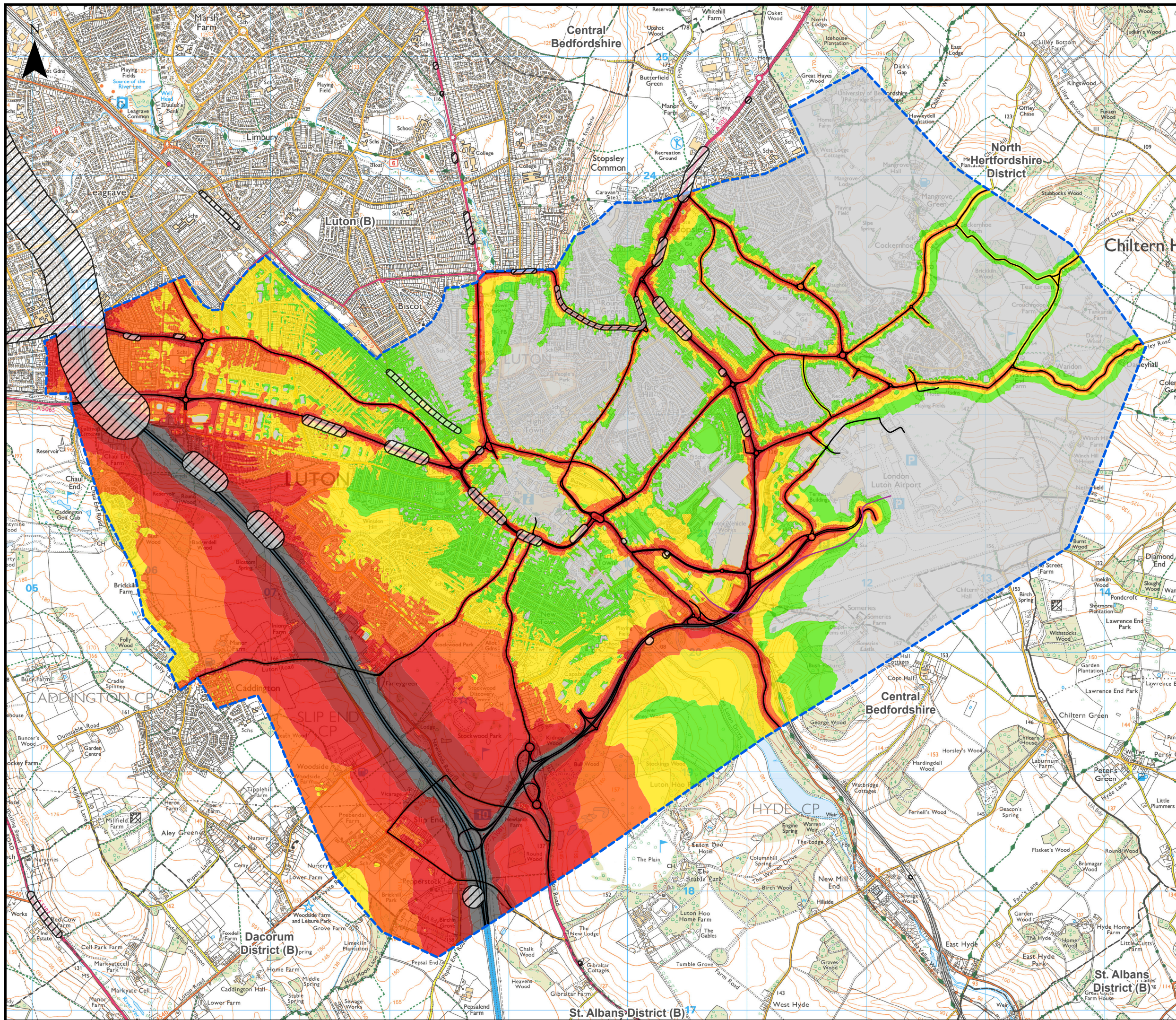
Drawing Title **Figure 16.81**
 Extent of 2043 Do-Minimum Daytime LAeq,16h Surface Access Noise Contours

Purpose of issue	Additional submissions (updated in response to Rule 9 letter)					Suitability
Drawn	Checked	Approved	Date	Scale	Size	S2
HW	CSH	CS	16/06/23	1:30,000	A3	

DCO Application Ref.	APFP Regulation	DCO Document Ref.
TR020001	APFP 5(2)(a)	TR020001/APP/5.03

Drawing Number	Revision
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Legend

- Local Authority Boundaries
 - Surface access noise study area
 - Road Traffic Noise Important Area
 - Road
- Surface Access Noise Contours in Decibels (dB) (2043 Do-Minimum Night-time LAeq,8h at 4m free-field)**
- Below LOAEL
 - LOAEL - ≤ 45
 - > 45 - ≤ 50
 - > 50 - ≤ SOAEL
 - > 55 - ≤ 60
 - > 60 - ≤ 65
 - > 65 - ≤ UAEL
 - Above UAEL

Lowest Observed Adverse Effect Level (LOAEL) = 40 dB
 Significant Observed Adverse Effect Level (SOAEL) = 55 dB
 Unacceptable Adverse Effect Level (UAEL) = 66 dB

Additional submissions (updated in response to Rule 9 letter)	HW	CSH	CS	16/06/23	P02
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Drawing Title: Figure 16.82
 Extent of 2043 Do-Minimum Night-time LAeq,8h Surface Access Noise Contours

Purpose of issue	Additional submissions (updated in response to Rule 9 letter)				Suitability
Drawn	Checked	Approved	Date	Scale	Size
LP	CSH	CS	16/06/23	1:30,000	A3

DCO Application Ref.	APFP Regulation	DCO Document Ref.
TR020001	APFP 5(2)(a)	TR020001/APP/5.03

Drawing Number	Revision
LLADCO-3C-AEC-00-00-DR-YE-0082	P02

Project - Phase - Originator - Asset/Zone - Sub Asset - Type- Discp. - Number