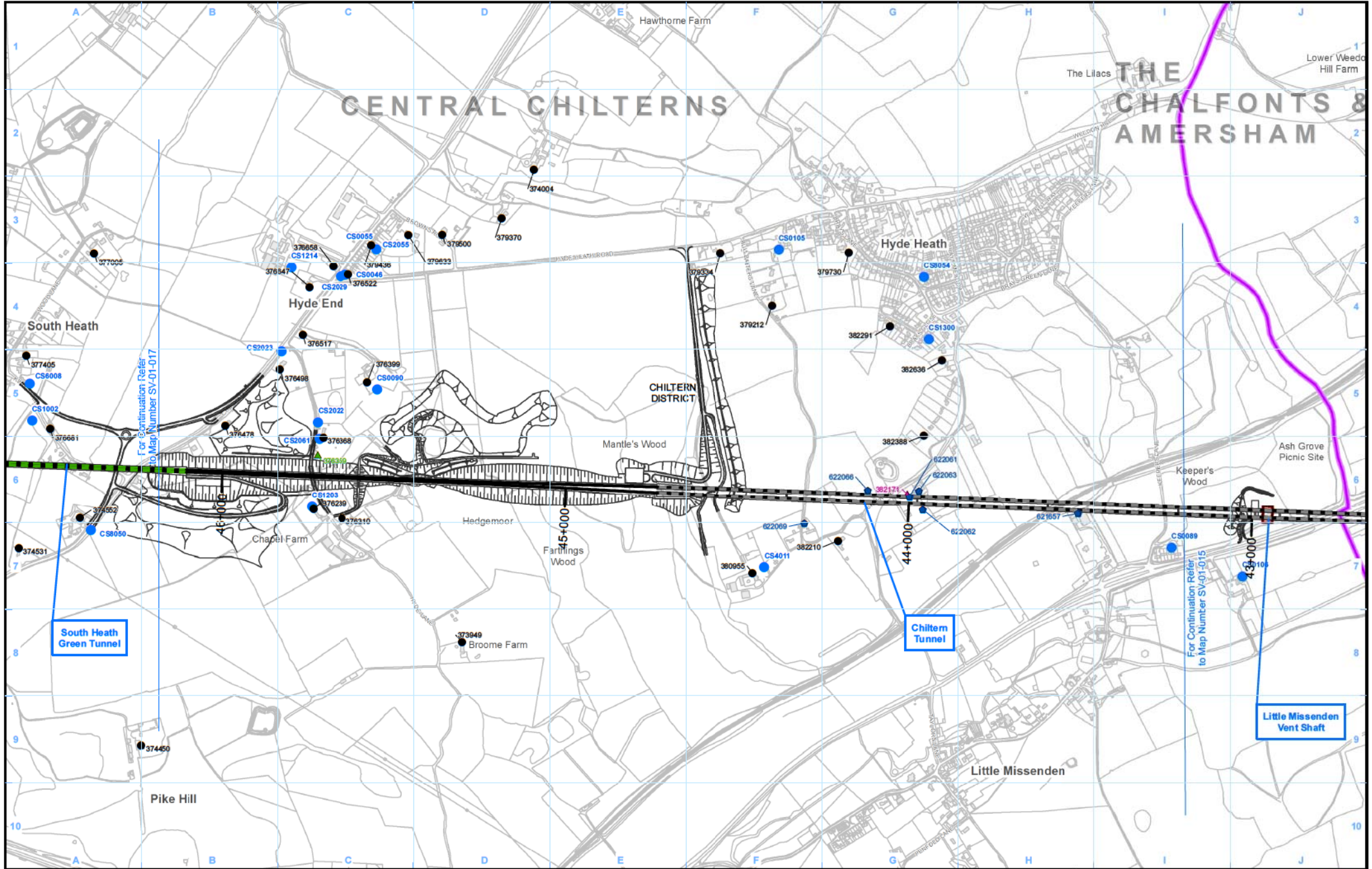


EXHIBIT LIST

Page 1 of 19

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2	P7572 Chiltern Noise Likely Significant Effects	8 - 13
3	P7573 Chiltern Noise Contours	14 - 19



For Continuation Refer to Map Number SV-01-017

For Continuation Refer to Map Number SV-01-015

South Heath Green Tunnel

Chiltern Tunnel

Little Missenden Vent Shaft

- Legend - General features**
- Route in bored tunnel
 - Route in green tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community forum boundary

- Engineering earthworks:**
- Embankment
 - Cutting
- Non engineering earthworks:**
- Embankment
 - Cutting

- Legend - Sound related features**
- Airborne sound assessment location
 - Airborne sound and vibration assessment location
 - Ground-borne sound and/or vibration assessment location
 - Airborne sound, ground-borne sound and vibration assessment location
 - Baseline measurement locations

labelled with Assessment Location ID reference number (for details of the assessment results see Vol 5 Appendix SV004)

labelled with Measurement Location reference code

Map Number: **SV-04-016**

Map Name: **Assessment and Monitoring Locations for Operational Sound, Noise & Vibration Assessments**

Community Forum Area CFA09: Central Chilterns

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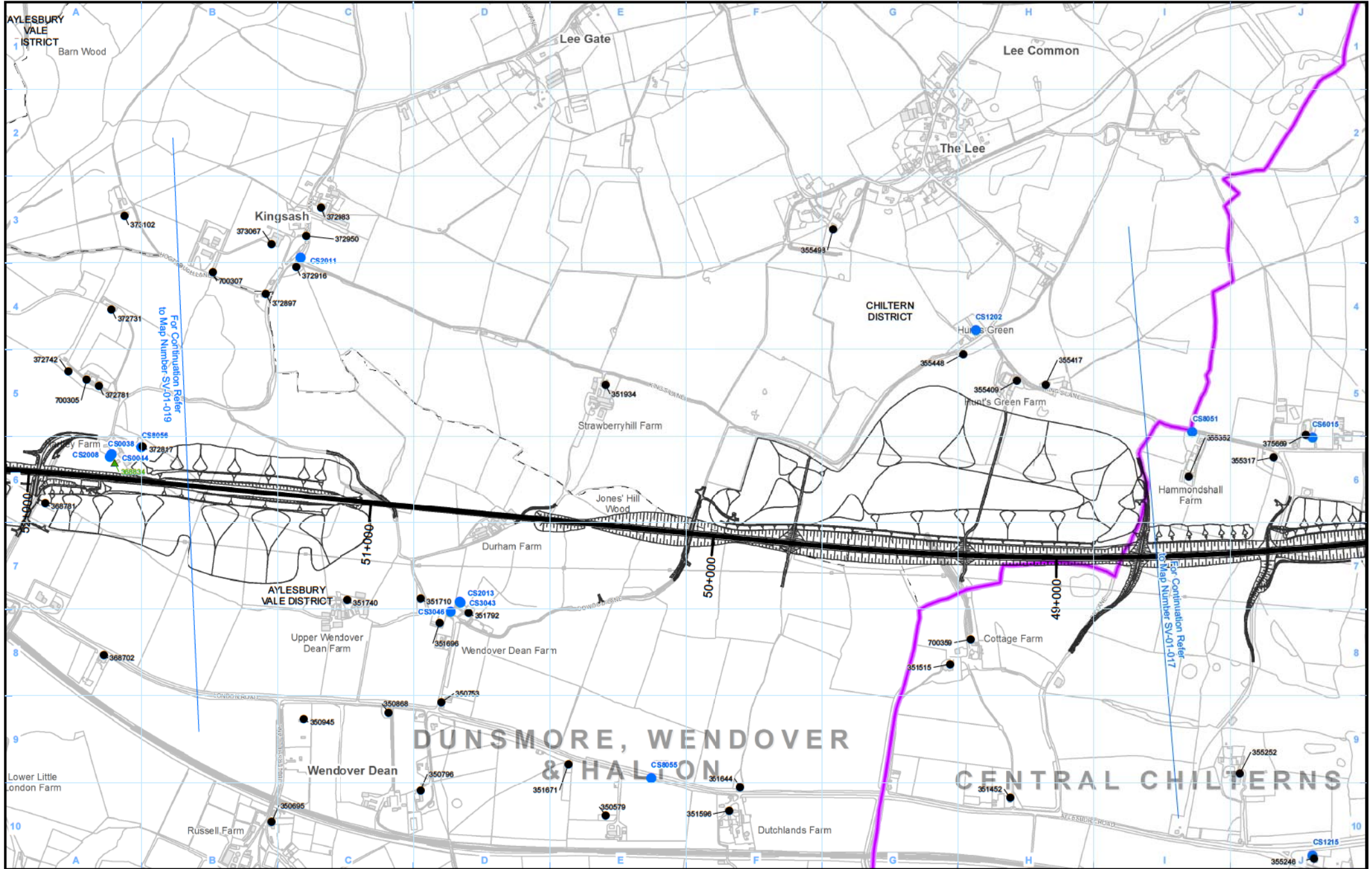
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P7571 (1)

HOC/40518/0002



Legend - General features

- Route in bored tunnel
- Route in green tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Community farm boundary

Engineering earthworks:

- Embankment
- Cutting

Non engineering earthworks:

- Embankment
- Cutting

Legend - Sound related features

- Airborne sound assessment location
- Airborne sound and vibration assessment location
- Ground-borne sound and/or vibration assessment location
- Airborne sound, ground-borne sound and vibration assessment location
- Baseline measurement locations

labelled with Assessment Location ID reference number
(for details of the assessment results see Vol 5 Appendix SV004)

(labelled with Measurement Location reference code)

Map Number **SV-04-018**

Map Name
Assessment and Monitoring Locations for Operational Sound, Noise & Vibration Assessments

Community Forum Area CFA10:
Dunsmore, Wendover & Halton



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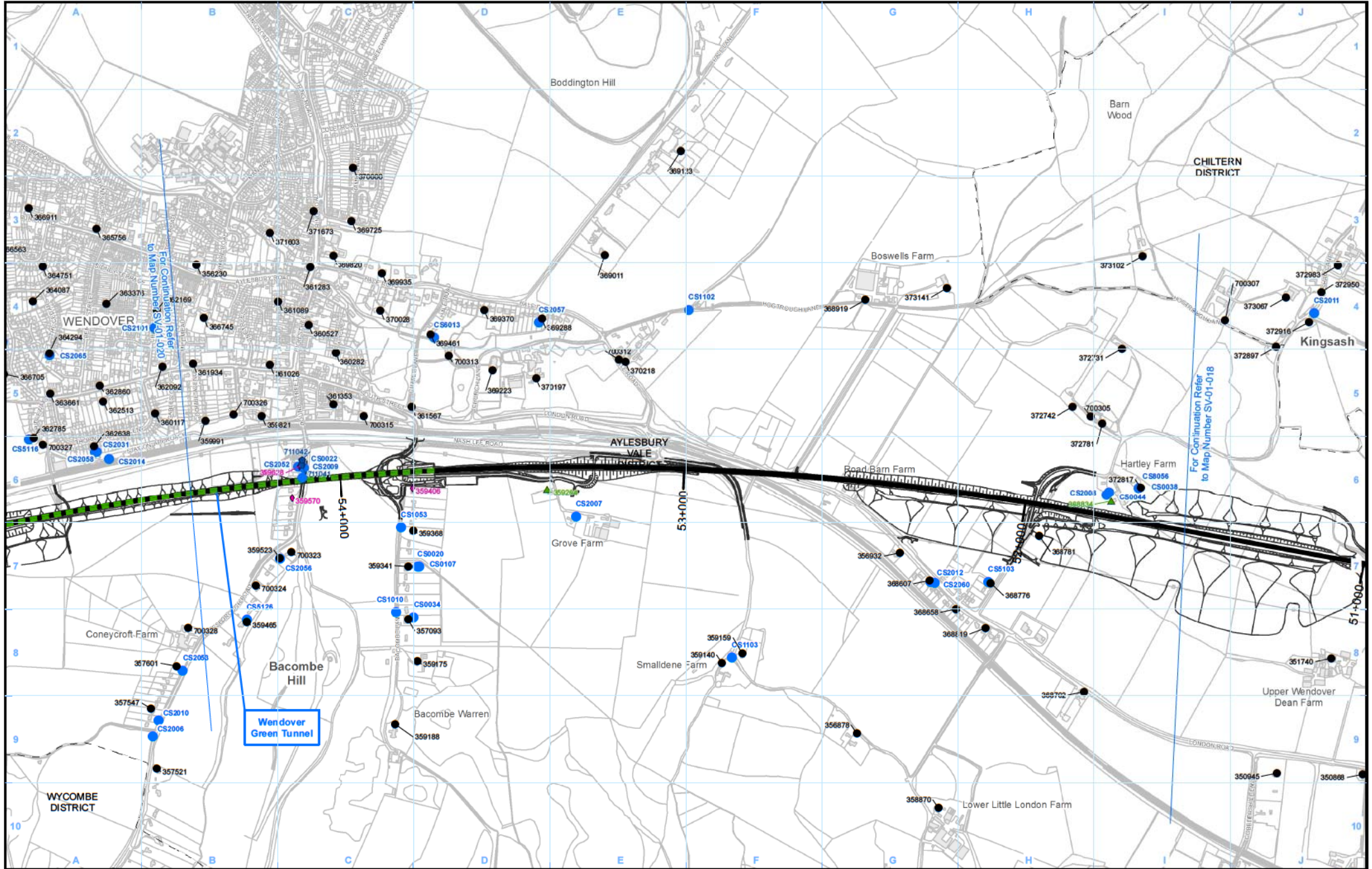
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Scale at A3: 1:10,000



P7571 (3)

HOC/0518/0004



Legend - General features

- Route in bored tunnel
- Route in green tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Community farm boundary

Engineering earthworks:

- Embankment
- Cutting

Non engineering earthworks:

- Embankment
- Cutting

Legend - Sound related features

- Airborne sound assessment location
- ▲ Airborne sound and vibration assessment location
- Ground-borne sound and/or vibration assessment location
- ◆ Airborne sound, ground-borne sound and vibration assessment location
- Baseline measurement locations

labelled with Assessment Location ID reference number
(for details of the assessment results see Vol 5 Appendix SV004)

labelled with Measurement Location reference code

Map Number: **SV-04-019**

Map Name: **Assessment and Monitoring Locations for Operational Sound, Noise & Vibration Assessments**

Community Forum Area CFA10:
Dunsmore, Wendover & Halton

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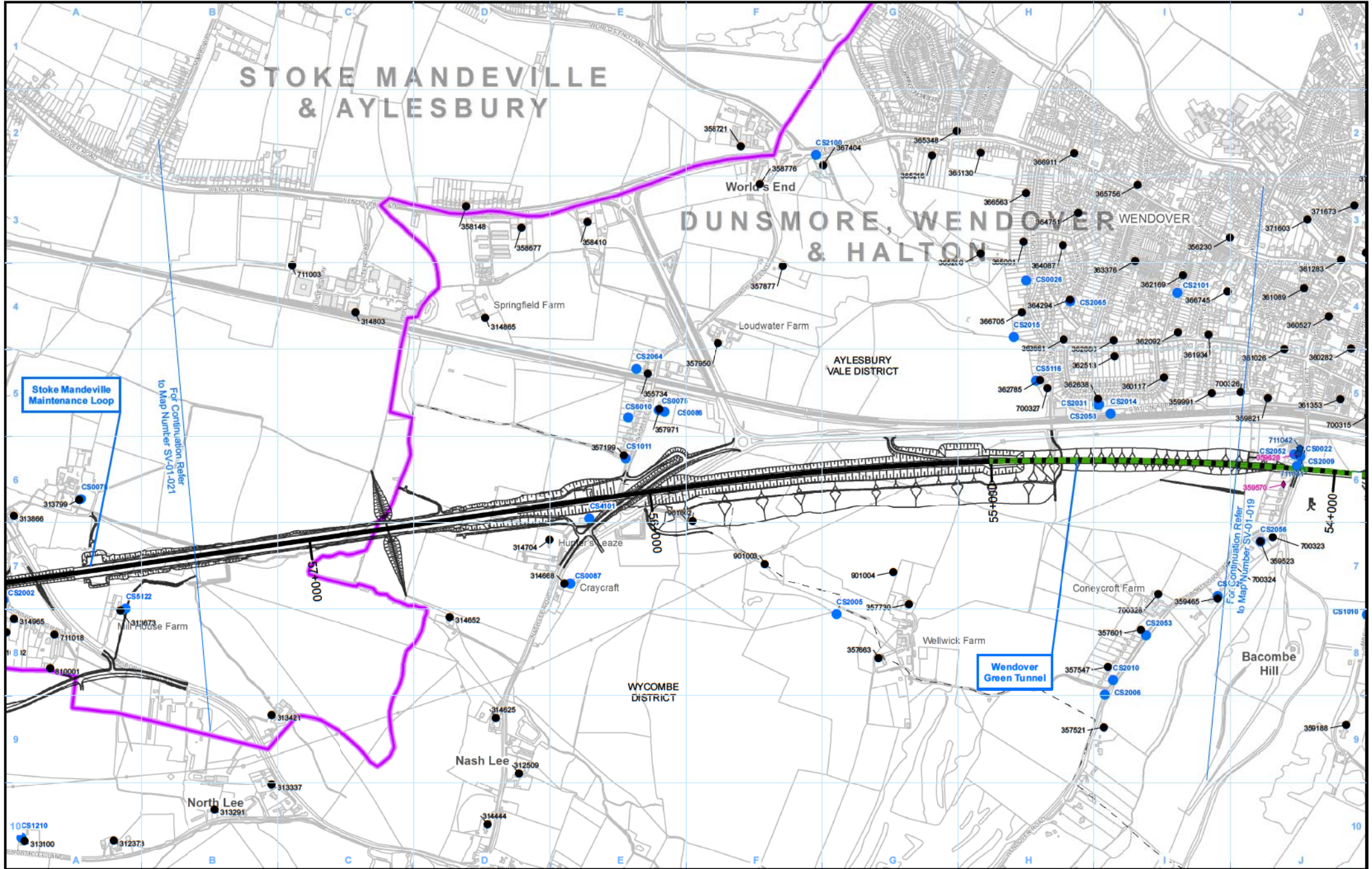
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HOC/40518/0005

P7571 (4)

STOKE MANDEVILLE & AYLESBURY

DUNSMORE, WENDOVER & HALTON



Stoke Mandeville Maintenance Loop

For Continuation Refer to Map Number SV-01-021

Wendover Green Tunnel

For Continuation Refer to Map Number SV-01-019

- Legend - General features**
- Route in bored tunnel
 - Route in green tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community forum boundary

- Engineering earthworks:**
- Embankment
 - Cutting
- Non engineering earthworks:**
- Embankment
 - Cutting

- Legend - Sound related features**
- Airborne sound assessment location
 - Airborne sound and vibration assessment location
 - Ground-borne sound and/or vibration assessment location
 - Airborne sound, ground-borne sound and vibration assessment location
 - Baseline measurement locations

labelled with Assessment Location ID reference number (for details of the assessment results see Vol 5 Appendix SV004)

labelled with Measurement Location reference code

Map Number: **SV-04-020**

Map Name: **Assessment and Monitoring Locations for Operational Sound, Noise & Vibration Assessments**

Community Forum Area CFA10: **Dunsmore, Wendover & Halton**

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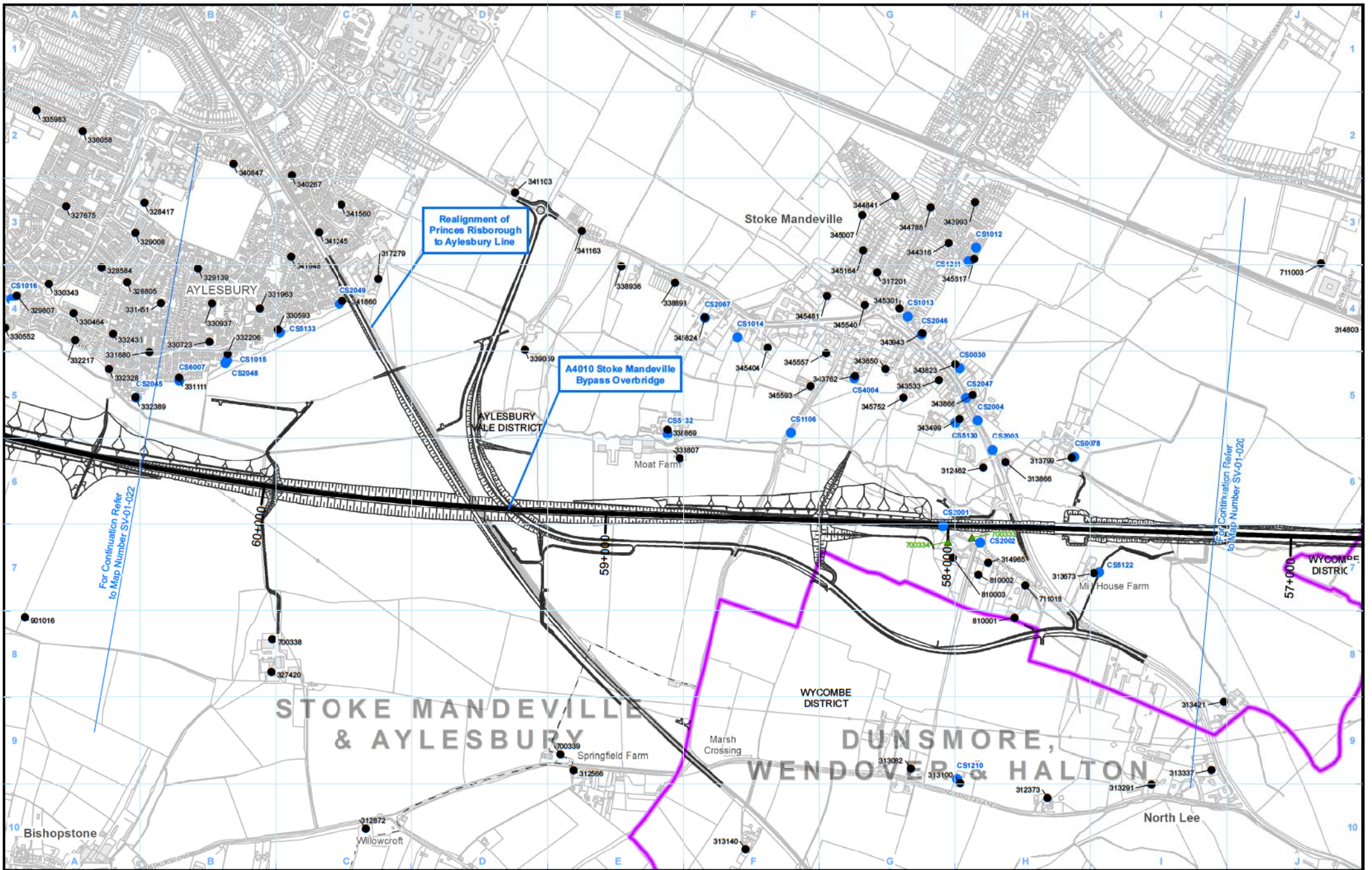
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P7571 (5)

HOC/40518/0006



- Legend - General features**
- Route in bored tunnel
 - Route in green tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community forum boundary

- Engineering earthworks:**
- Embankment
 - Cutting
- Non engineering earthworks:**
- Embankment
 - Cutting

- Legend - Sound related features**
- Airborne sound assessment location
 - Airborne sound and vibration assessment location
 - Ground-borne sound and/or vibration assessment location
 - Airborne sound, ground-borne sound and vibration assessment location
 - Baseline measurement locations

labelled with Assessment Location ID reference number
(for details of the assessment results see Vol 5 Appendix SV004)

labelled with Measurement Location reference code

P7571 (6)

Map Number: SV-04-021

Map Name: Assessment and Monitoring Locations for Operational Sound, Noise & Vibration Assessments

Community Forum Area CFA11: Stoke Mandeville & Aylesbury

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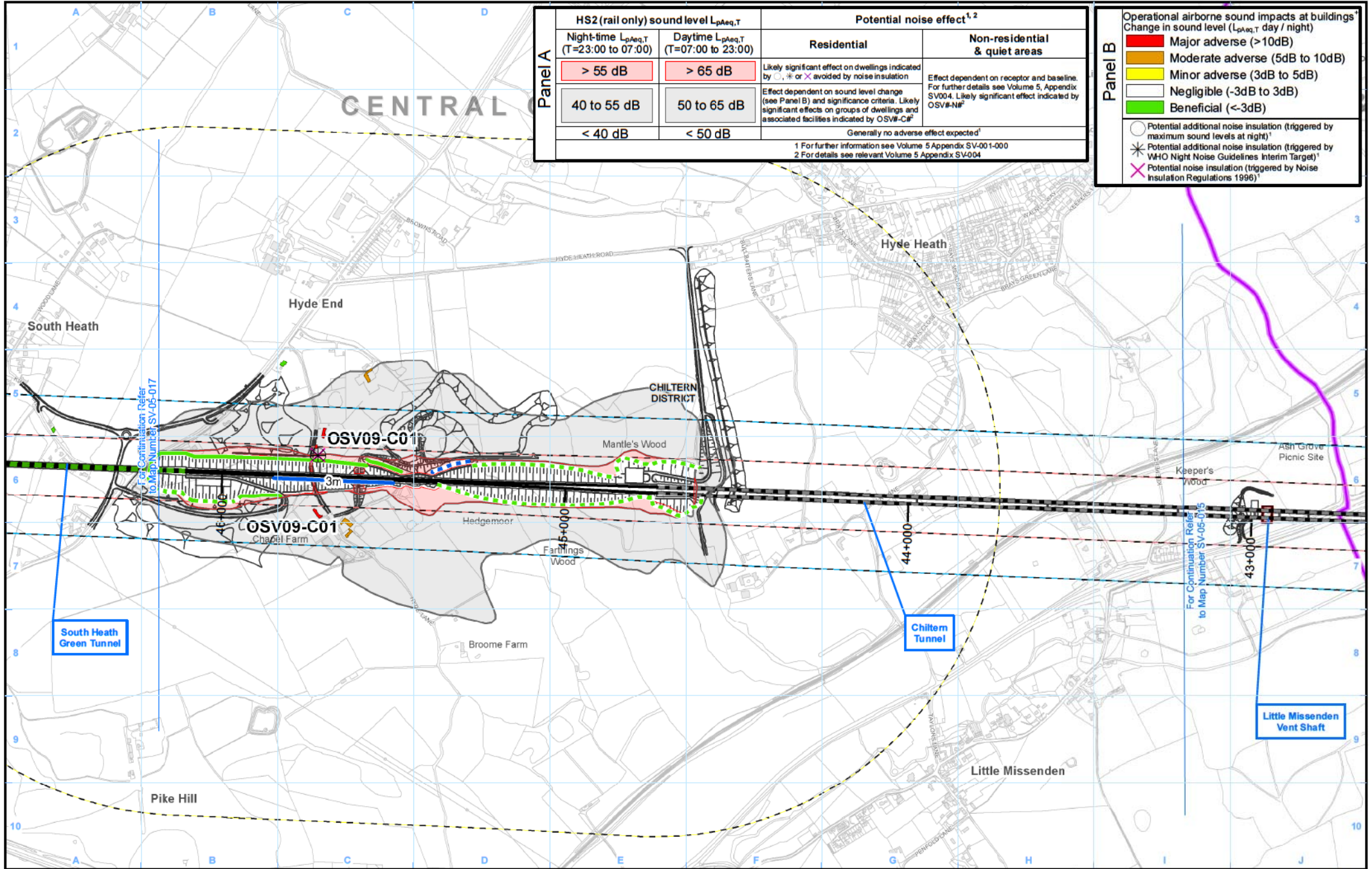
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North arrow icon

HOC/40518/0007



HS2 (rail only) sound level $L_{pAeq,T}$		Potential noise effect ^{1,2}	
Night-time $L_{pAeq,T}$ (T=23:00 to 07:00)	Daytime $L_{pAeq,T}$ (T=07:00 to 23:00)	Residential	Non-residential & quiet areas
> 55 dB	> 65 dB	Likely significant effect on dwellings indicated by \cdot , \ast or \times avoided by noise insulation	Effect dependent on receptor and baseline. For further details see Volume 5, Appendix SV004. Likely significant effect indicated by OSV#-N#
40 to 55 dB	50 to 65 dB	Effect dependent on sound level change (see Panel B) and significance criteria. Likely significant effects on groups of dwellings and associated facilities indicated by OSV#-C#	
< 40 dB	< 50 dB	Generally no adverse effect expected ¹	
		1 For further information see Volume 5 Appendix SV-001-000 2 For details see relevant Volume 5 Appendix SV-004	

Panel B

Operational airborne sound impacts at buildings
Change in sound level ($L_{pAeq,T}$ day / night)

- Major adverse (>10dB)
- Moderate adverse (5dB to 10dB)
- Minor adverse (3dB to 5dB)
- Negligible (-3dB to 3dB)
- Beneficial (<-3dB)

- Potential additional noise insulation (triggered by maximum sound levels at night)¹
- ✱ Potential additional noise insulation (triggered by WHO Night Noise Guidelines Interim Target)¹
- ✱ Potential noise insulation (triggered by Noise Insulation Regulations 1996)¹

Legend - General features <ul style="list-style-type: none"> — Route in bored tunnel — Route in green tunnel — Route on surface Depot, station, headhouse or portal building Community farm boundary 		Legend - Sound related features <ul style="list-style-type: none"> Committed developments (labelled as CFA##) Envisaged mitigation to avoid / reduce significant noise effects: Landscaping and/or fence barriers* Engineering e.g. cuttings (green tunnels separately marked) Envisaged measures further reducing noise effects: Other environmental e.g. landscaping Engineering e.g. cuttings 		<ul style="list-style-type: none"> Airborne sound study area Ground-borne sound & vibration study area (residential and non-residential) Ground-borne sound & vibration study area (highly sensitive non-residential) Minor ground-borne noise or vibration impact* 	
Engineering earthworks: <ul style="list-style-type: none"> Embankment Cutting 		Non engineering earthworks: <ul style="list-style-type: none"> Embankment Cutting 			

* Residential buildings only
* Labelled with total barrier height above rail level

Map Number: **SV-05-016**

Map Name: **Operational Noise and Vibration Impacts and Likely Significant Effects**

Community Forum Area CFA09: Central Chilterns

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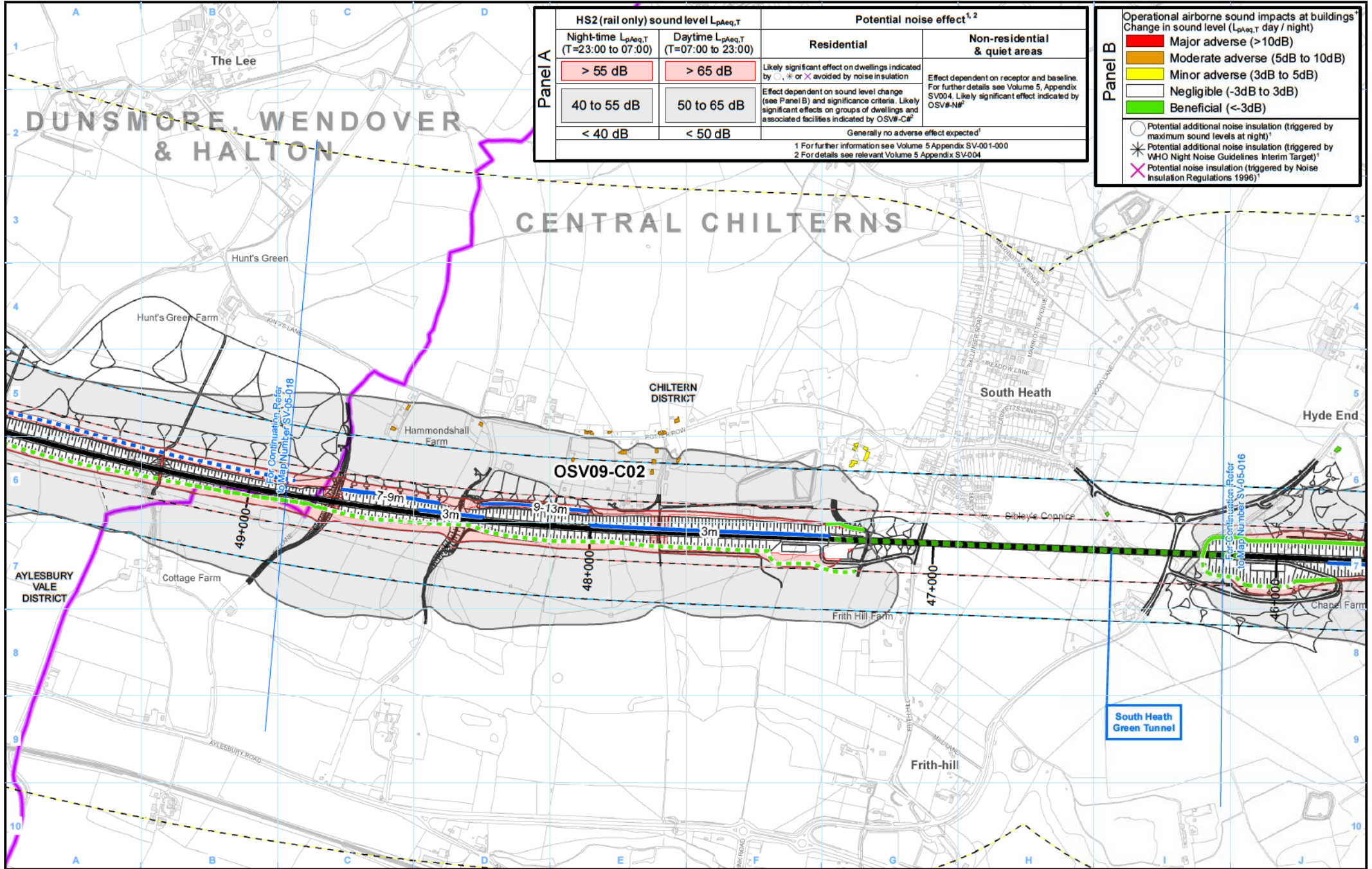
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Scale at A3: 1:10,000

0 100 200 300 400 Meters

HOC/40518/0008

P7572 (1)



Panel A	HS2 (rail only) sound level $L_{pAeq,T}$		Potential noise effect ^{1,2}	
	Night-time $L_{pAeq,T}$ (T=23:00 to 07:00)	Daytime $L_{pAeq,T}$ (T=07:00 to 23:00)	Residential	Non-residential & quiet areas
	> 55 dB	> 65 dB	Likely significant effect on dwellings indicated by \dots , \ast or \times avoided by noise insulation	Effect dependent on receptor and baseline. For further details see Volume 5, Appendix SV004. Likely significant effect indicated by OSV#-N#
40 to 55 dB	50 to 65 dB	Effect dependent on sound level change (see Panel B) and significance criteria. Likely significant effects on groups of dwellings and associated facilities indicated by OSV#-C#	Generally no adverse effect expected ¹	
< 40 dB	< 50 dB		1 For further information see Volume 5 Appendix SV-001-000 2 For details see relevant Volume 5 Appendix SV-004	

Panel B	Operational airborne sound impacts at buildings Change in sound level ($L_{pAeq,T}$ day / night)				
	■	Major adverse (>10dB)	■	Moderate adverse (5dB to 10dB)	■
■	Negligible (-3dB to 3dB)	■	Beneficial (<-3dB)	○	Potential additional noise insulation (triggered by maximum sound levels at night) ¹
✱	Potential additional noise insulation (triggered by WHO Night Noise Guidelines Interim Target) ¹	✱	Potential noise insulation (triggered by Noise Insulation Regulations 1996) ¹		

P7572 (2)

Legend - General features

- Route in bored tunnel
- Route in green tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Community farm boundary

Engineering earthworks:

- Embankment
- Cutting

Non engineering earthworks:

- Embankment
- Cutting

* Residential buildings only
* Labelled with total barrier height above rail level

Legend - Sound related features

- Committed developments (labelled as CFA##)
- Envisaged mitigation to avoid / reduce significant noise effects: Landscaping and/or fence barriers*
- Engineering e.g. cuttings (green tunnels separately marked)
- Envisaged measures further reducing noise effects: Other environmental e.g. landscaping
- Engineering e.g. cuttings

- Airborne sound study area
- Ground-borne sound & vibration study area (residential and non-residential)
- Ground-borne sound & vibration study area (highly sensitive non-residential)
- Minor ground-borne noise or vibration impact*

Map Number: SV-05-017

Map Name: Operational Noise and Vibration Impacts and Likely Significant Effects

Community Forum Area CFA09: Central Chilterns

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HOC/40518/0009

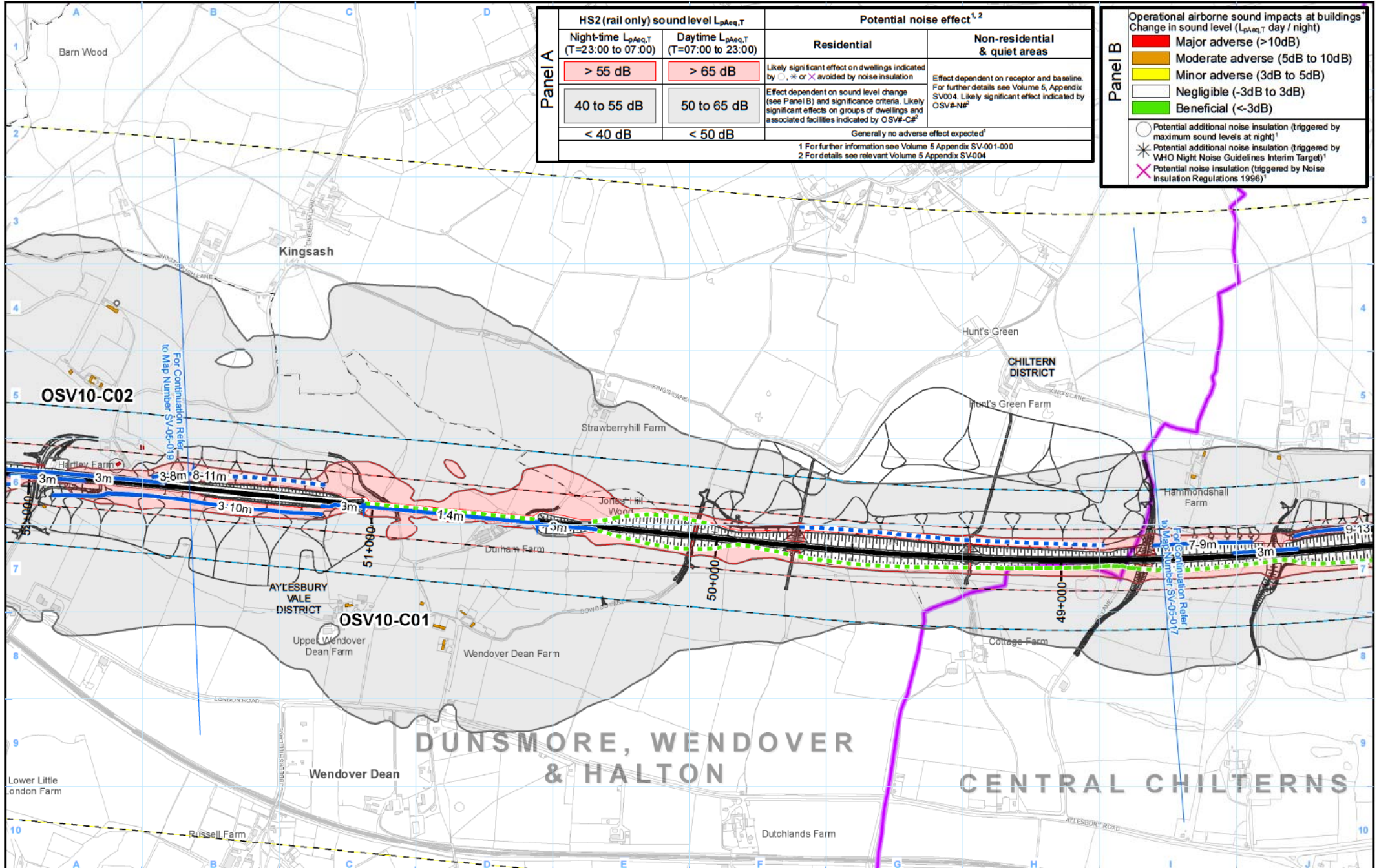
HS2 (rail only) sound level $L_{pAeq,T}$		Potential noise effect ^{1,2}	
Night-time $L_{pAeq,T}$ (T=23:00 to 07:00)	Daytime $L_{pAeq,T}$ (T=07:00 to 23:00)	Residential	Non-residential & quiet areas
> 55 dB	> 65 dB	Likely significant effect on dwellings indicated by * or X avoided by noise insulation	Effect dependent on receptor and baseline. For further details see Volume 5, Appendix SV004. Likely significant effect indicated by OSV#-N#
40 to 55 dB	50 to 65 dB	Effect dependent on sound level change (see Panel B) and significance criteria. Likely significant effects on groups of dwellings and associated facilities indicated by OSV#-C#	
< 40 dB	< 50 dB	Generally no adverse effect expected ¹	
¹ For further information see Volume 5 Appendix SV-001-000 ² For details see relevant Volume 5 Appendix SV-004			

Panel B

Operational airborne sound impacts at buildings
Change in sound level ($L_{pAeq,T}$ day / night)

- Major adverse (>10dB)
- Moderate adverse (5dB to 10dB)
- Minor adverse (3dB to 5dB)
- Negligible (-3dB to 3dB)
- Beneficial (<-3dB)

○ Potential additional noise insulation (triggered by maximum sound levels at night)¹
 * Potential additional noise insulation (triggered by WHO Night Noise Guidelines Interim Target)¹
 X Potential noise insulation (triggered by Noise Insulation Regulations 1996)¹



P7572 (3)

Legend - General features

- Route in bored tunnel
- Route in green tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Community farm boundary

Engineering earthworks:

- Embankment
- Cutting

Non engineering earthworks:

- Embankment
- Cutting

* Residential buildings only
* Labelled with total barrier height above rail level

Legend - Sound related features

- Committed developments (labelled as CFA##)
- Envisaged mitigation to avoid / reduce significant noise effects: Landscaping and/or fence barriers*
- Engineering e.g. cuttings (green tunnels separately marked)
- Envisaged measures further reducing noise effects: Other environmental e.g. landscaping
- Engineering e.g. cuttings

- Airborne sound study area
- Ground-borne sound & vibration study area (residential and non-residential)
- Ground-borne sound & vibration study area (highly sensitive non-residential)
- Minor ground-borne noise or vibration impact*

Map Number: **SV-05-018**

Map Name: **Operational Noise and Vibration Impacts and Likely Significant Effects**

Community Forum Area CFA10:
Dunsmore, Wendover & Halton

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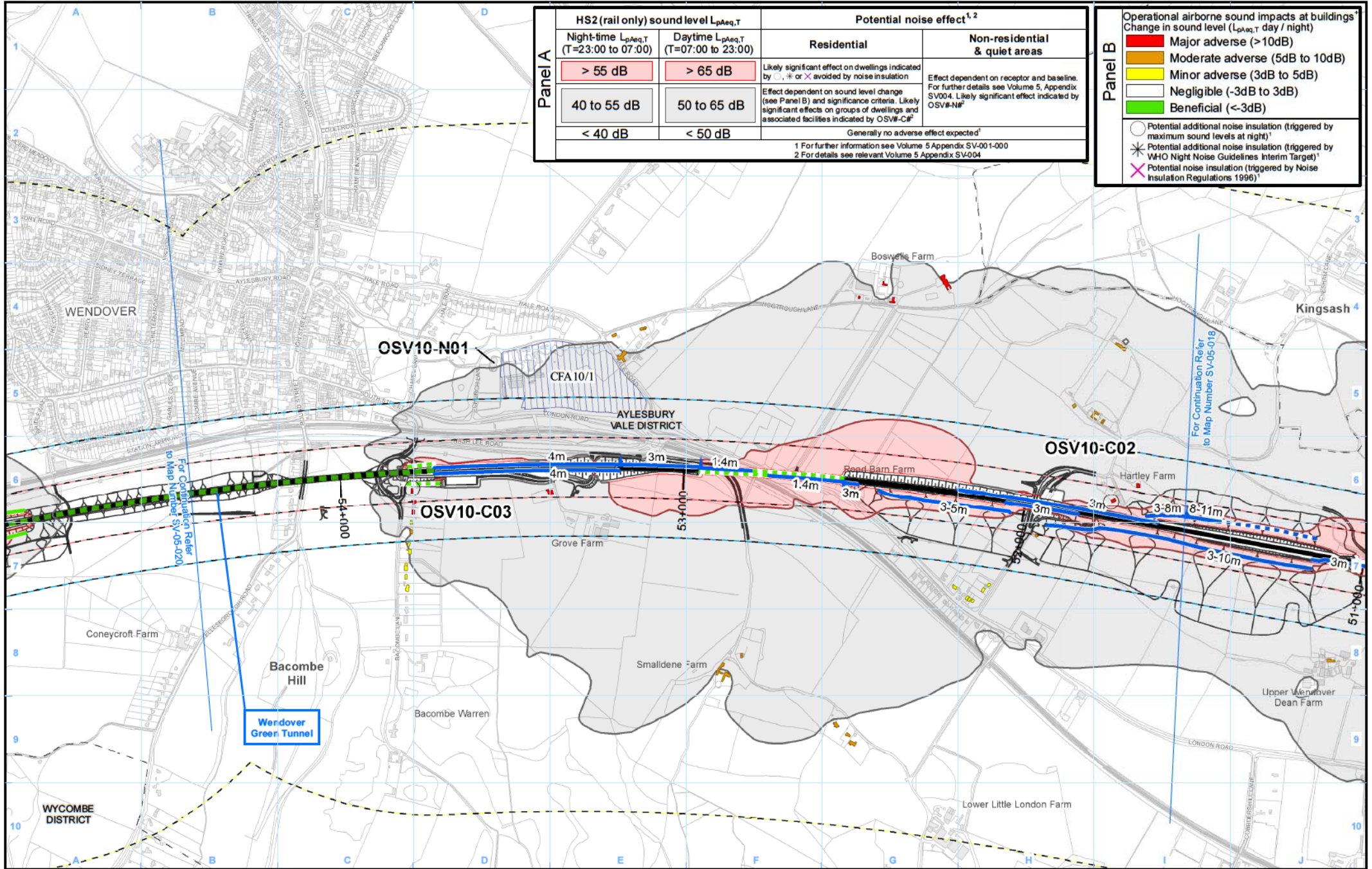
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HOC/0518/0010



Panel A	HS2 (rail only) sound level $L_{pAeq,T}$		Potential noise effect ^{1,2}	
	Night-time $L_{pAeq,T}$ (T=23:00 to 07:00)	Daytime $L_{pAeq,T}$ (T=07:00 to 23:00)	Residential	Non-residential & quiet areas
	> 55 dB	> 65 dB	Likely significant effect on dwellings indicated by \cdot , $*$ or \times avoided by noise insulation Effect dependent on sound level change (see Panel B) and significance criteria. Likely significant effects on groups of dwellings and associated facilities indicated by OSV#-C#	Effect dependent on receptor and baseline. For further details see Volume 5, Appendix SV004. Likely significant effect indicated by OSV#-N#
40 to 55 dB	50 to 65 dB	Generally no adverse effect expected ¹		
< 40 dB	< 50 dB	1 For further information see Volume 5 Appendix SV-001-000 2 For details see relevant Volume 5 Appendix SV-004		

Panel B

Operational airborne sound impacts at buildings
Change in sound level ($L_{pAeq,T}$ day / night)

- Major adverse (>10dB)
- Moderate adverse (5dB to 10dB)
- Minor adverse (3dB to 5dB)
- Negligible (-3dB to 3dB)
- Beneficial (<-3dB)

- \circ Potential additional noise insulation (triggered by maximum sound levels at night)¹
- $*$ Potential additional noise insulation (triggered by WHO Night Noise Guidelines Interim Target)¹
- \times Potential noise insulation (triggered by Noise Insulation Regulations 1996)¹

P7572 (4)

<p>Legend - General features</p> <ul style="list-style-type: none"> — Route in bored tunnel — Route in green tunnel — Route on surface Depot, station, headhouse or portal building Community farm boundary 	<p>Engineering earthworks:</p> <ul style="list-style-type: none"> Embankment Cutting 	<p>Non engineering earthworks:</p> <ul style="list-style-type: none"> Embankment Cutting 	<p>Legend - Sound related features</p> <ul style="list-style-type: none"> Committed developments (labelled as CFA##) Envisaged mitigation to avoid / reduce significant noise effects: Landscaping and/or fence barriers* Envisaged measures further reducing noise effects: Other environmental e.g. landscaping Engineering e.g. cuttings 	<ul style="list-style-type: none"> Airborne sound study area Ground-borne sound & vibration study area (residential and non-residential) Ground-borne sound & vibration study area (highly sensitive non-residential) Minor ground-borne noise or vibration impact*
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* Residential buildings only
* Labelled with total barrier height above rail level

Map Number: **SV-05-019**

Map Name: **Operational Noise and Vibration Impacts and Likely Significant Effects**

Community Forum Area CFA10:
Dunsmore, Wendover & Halton

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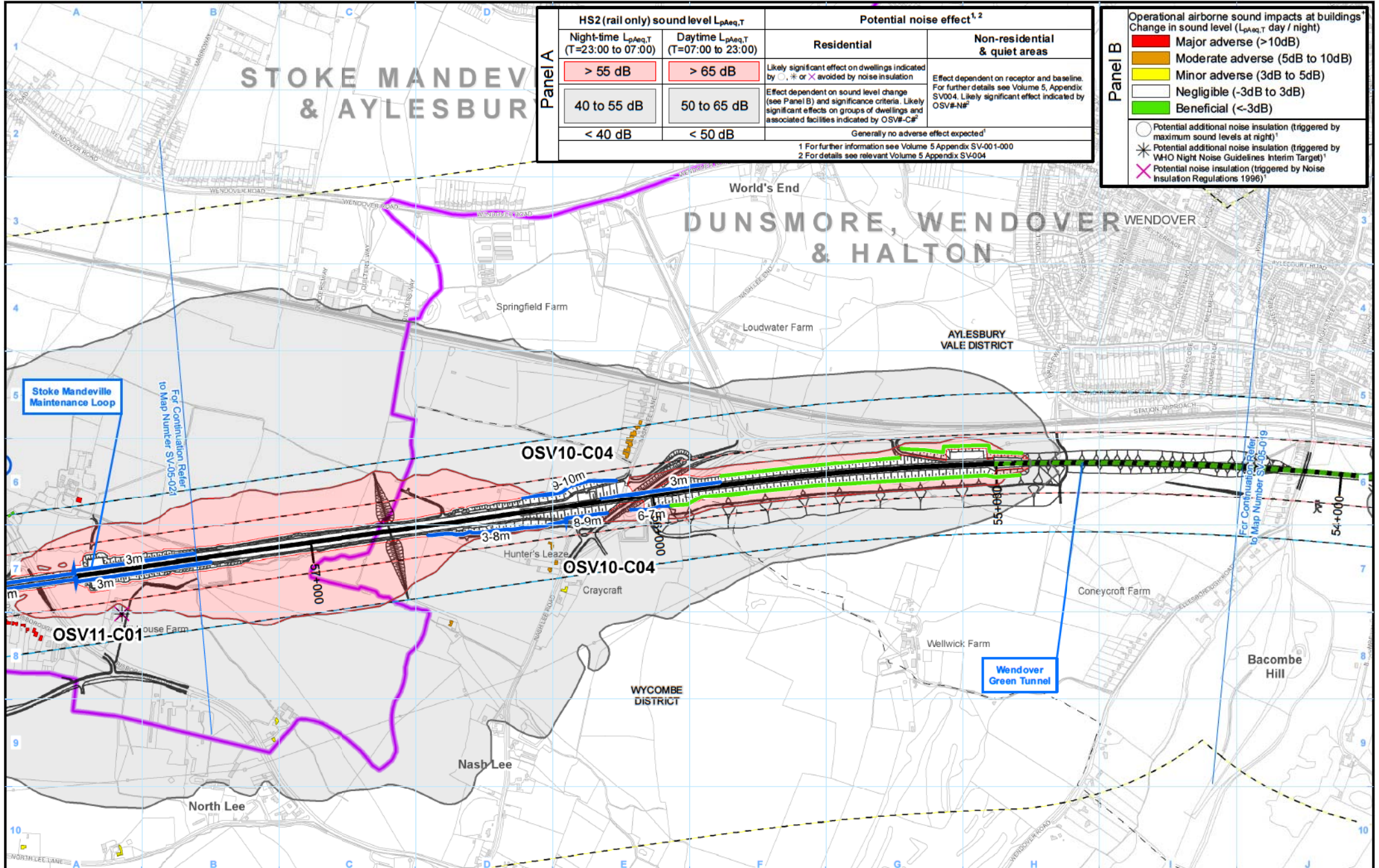
STOKE MANDEVILLE & AYLESBUR

World's End DUNSMORE, WENDOVER & HALTON

Panel A	HS2 (rail only) sound level L _{pAeq,T}		Potential noise effect ^{1,2}	
	Night-time L _{pAeq,T} (T=23:00 to 07:00)	Daytime L _{pAeq,T} (T=07:00 to 23:00)	Residential	Non-residential & quiet areas
	> 55 dB	> 65 dB	Likely significant effect on dwellings indicated by * or X avoided by noise insulation	Effect dependent on receptor and baseline. For further details see Volume 5, Appendix SV004. Likely significant effect indicated by OSV#-N#
40 to 55 dB	50 to 65 dB	Effect dependent on sound level change (see Panel B) and significance criteria. Likely significant effects on groups of dwellings and associated facilities indicated by OSV#-C#	Generally no adverse effect expected ¹	
< 40 dB	< 50 dB			

1 For further information see Volume 5 Appendix SV-001-000
2 For details see relevant Volume 5 Appendix SV-004

Panel B	Operational airborne sound impacts at buildings Change in sound level (L _{pAeq,T} day / night)			
	■	■	■	■
	Major adverse (>10dB)	Moderate adverse (5dB to 10dB)	Minor adverse (3dB to 5dB)	Negligible (-3dB to 3dB)
				Beneficial (<-3dB)
○	Potential additional noise insulation (triggered by maximum sound levels at night) ¹			
*	Potential additional noise insulation (triggered by WHO Night Noise Guidelines Interim Target) ¹			
X	Potential noise insulation (triggered by Noise Insulation Regulations 1996) ¹			



P7572 (5)

Legend - General features		Engineering earthworks:		Non engineering earthworks:	
	Route in bored tunnel		Embankment		Embankment
	Route in green tunnel		Cutting		Cutting
	Route on surface				
	Depot, station, headhouse or portal building				
	Community farm boundary				

* Residential buildings only
* Labelled with total barrier height above rail level

Legend - Sound related features	
	Committed developments (labelled as CFA##)
	Envisaged mitigation to avoid / reduce significant noise effects: Landscaping and/or fence barriers*
	Engineering e.g. cuttings (green tunnels separately marked)
	Other environmental e.g. landscaping
	Engineering e.g. cuttings

	Airborne sound study area
	Ground-borne sound & vibration study area (residential and non-residential)
	Ground-borne sound & vibration study area (highly sensitive non-residential)
	Minor ground-borne noise or vibration impact*

Map Number: **SV-05-020**

Map Name: **Operational Noise and Vibration Impacts and Likely Significant Effects**

Community Forum Area CFA10:
Dunsmore, Wendover & Halton

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HOC/40518/0012

See text for full description and extent of significant effects. (*) Where SES/AP is reason for significant effect.

Receptor/significant effect removed/added (as a result of amendment*: AP2-XXX-YYY). SES/AP change ref.
Significant effect descriptor
Reduced effect Increased effect

Significant effect OSV11-N01 removed (as a result of amendment AP2-011-002)

Significant effect OSV11-C03 removed (as a result of amendment AP2-011-002)

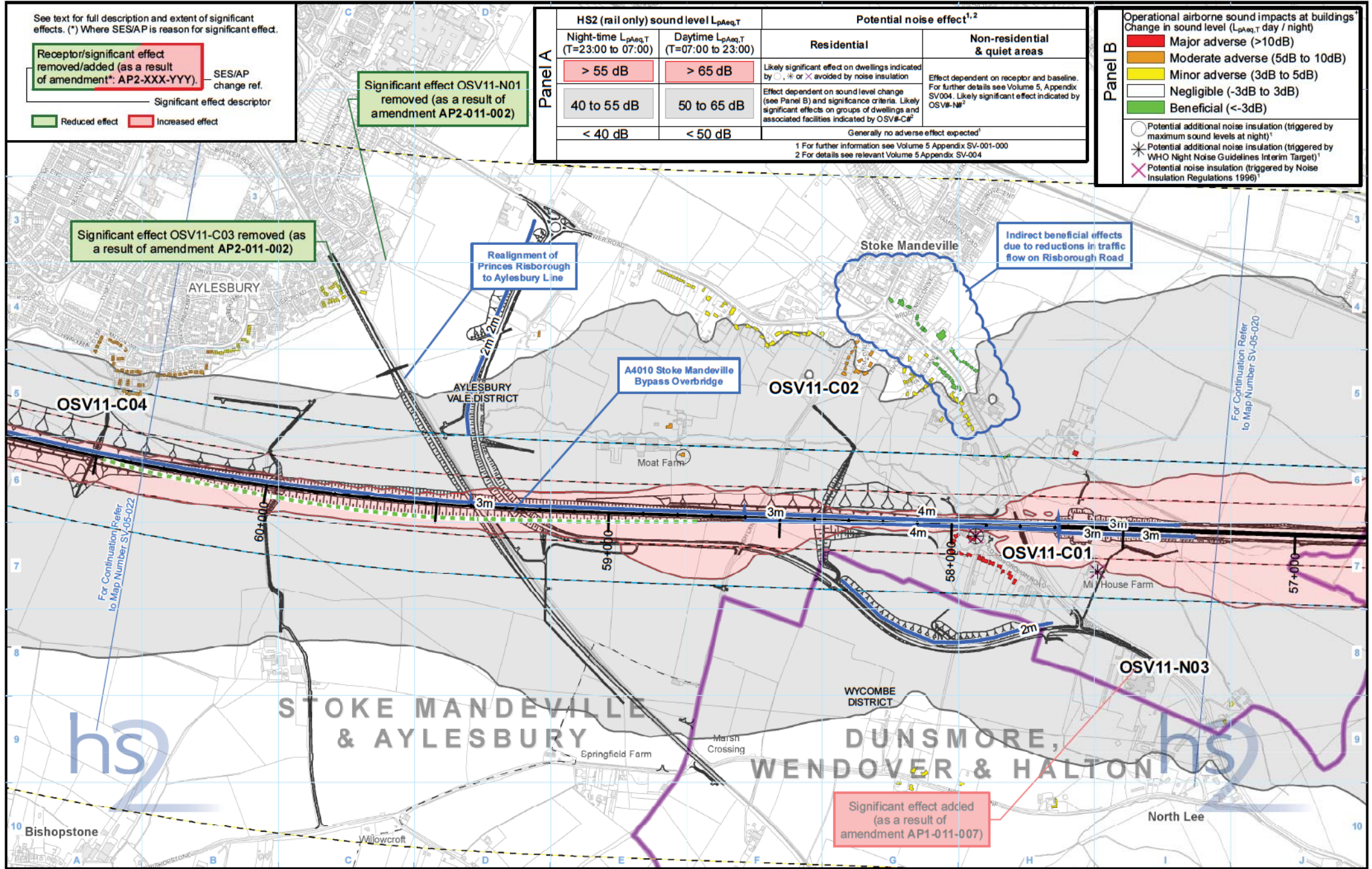
HS2 (rail only) sound level $L_{pAeq,T}$		Potential noise effect ^{1,2}	
Night-time $L_{pAeq,T}$ (T=23:00 to 07:00)	Daytime $L_{pAeq,T}$ (T=07:00 to 23:00)	Residential	Non-residential & quiet areas
> 55 dB	> 65 dB	Likely significant effect on dwellings indicated by *, † or ‡; avoided by noise insulation	Effect dependent on receptor and baseline. For further details see Volume 5, Appendix SV004. Likely significant effect indicated by OSV#-N#*
40 to 55 dB	50 to 65 dB	Effect dependent on sound level change (see Panel B) and significance criteria. Likely significant effects on groups of dwellings and associated facilities indicated by OSV#-C#†	Generally no adverse effect expected ¹
< 40 dB	< 50 dB		1 For further information see Volume 5 Appendix SV-001-000 2 For details see relevant Volume 5 Appendix SV-004

Operational airborne sound impacts at buildings Change in sound level ($L_{pAeq,T}$ day / night)

Major adverse (>10dB)
Moderate adverse (5dB to 10dB)
Minor adverse (3dB to 5dB)
Negligible (-3dB to 3dB)
Beneficial (<-3dB)

Panel B

- Potential additional noise insulation (triggered by maximum sound levels at night)¹
- Potential additional noise insulation (triggered by WHO Night Noise Guidelines Interim Target)¹
- Potential noise insulation (triggered by Noise Insulation Regulations 1996)²



Legend - General features

- Route in bored tunnel
- Route in green tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Community forum boundary

Engineering earthworks:

- Embankment
- Cutting

Non engineering earthworks:

- Embankment
- Cutting

* Residential buildings only
* Labelled with total barrier height above rail level

Legend - Sound related features

- Committed developments (labelled as CFA#/#)
- Envisaged mitigation to avoid / reduce significant noise effects: Landscaping and/or fence barriers*
- Engineering e.g. cuttings (green tunnels separately marked)
- Envisaged measures further reducing noise effects: Other environmental e.g. landscaping
- Engineering e.g. cuttings

- Airborne sound study area
- Ground-borne sound & vibration study area (residential and non-residential)
- Ground-borne sound & vibration study area (highly sensitive non-residential)
- Minor ground-borne noise or vibration impact

Map Number: SV-05-021

Map Name: Operational Airborne Noise and Vibration Impacts and Likely Significant Effects SES and AP2 ES

Community Forum Area CFA11: Stoke Mandeville & Aylesbury

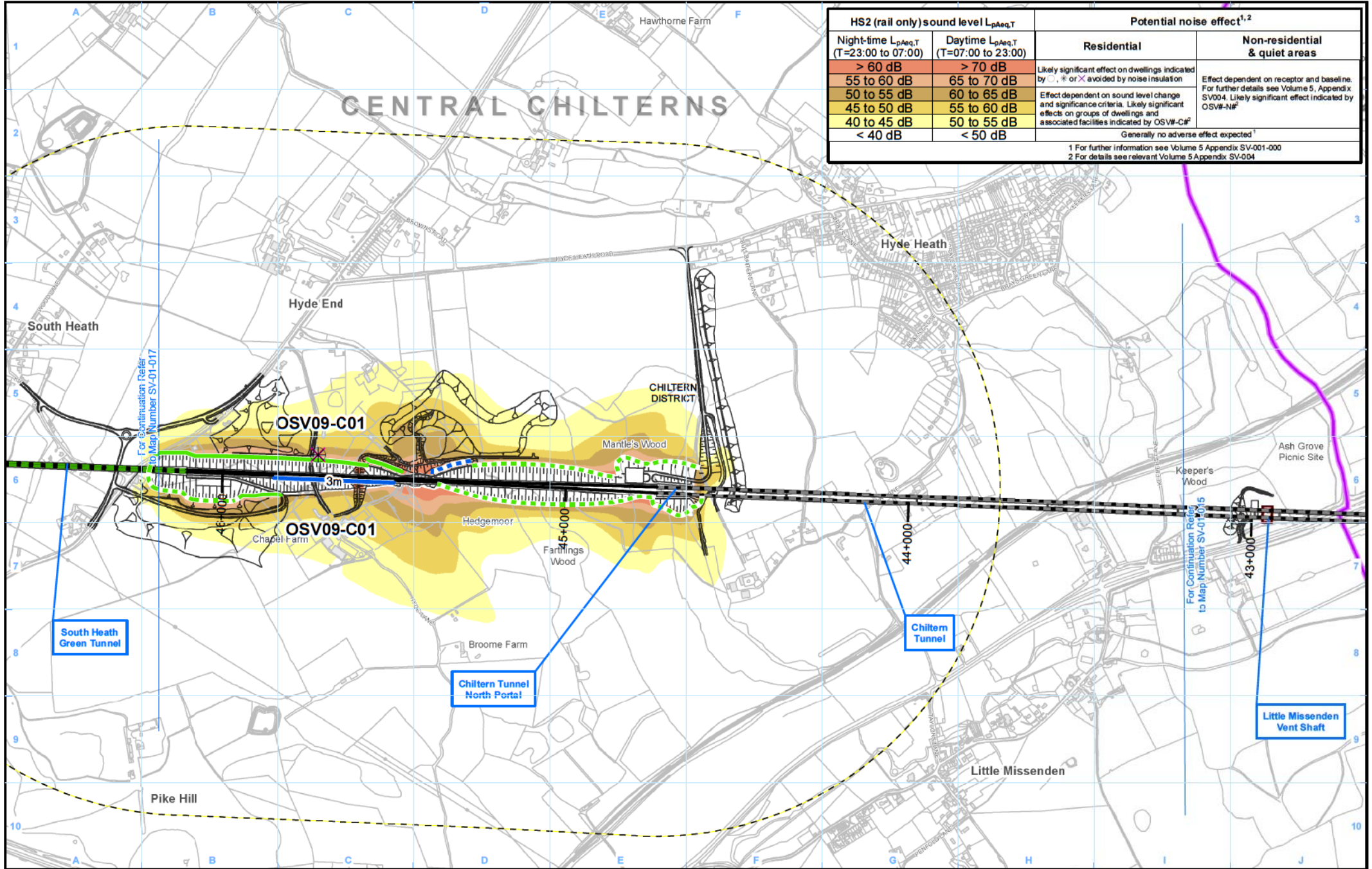
hs logo

Scale at A3: 1:10,000

Doc Number: C250-ARP-EV-MAP-000-001632

HOC/40518/0013

P7572 (6)



HS2 (rail only) sound level L _{pAeq,T}		Potential noise effect ^{1,2}	
Night-time L _{pAeq,T} (T=23:00 to 07:00)	Daytime L _{pAeq,T} (T=07:00 to 23:00)	Residential	Non-residential & quiet areas
> 60 dB	> 70 dB	Likely significant effect on dwellings indicated by ○, * or ✕ avoided by noise insulation	Effect dependent on receptor and baseline. For further details see Volume 5, Appendix SV004. Likely significant effect indicated by OSV#-N# ²
55 to 60 dB	65 to 70 dB	Effect dependent on sound level change and significance criteria. Likely significant effects on groups of dwellings and associated facilities indicated by OSV#-C# ²	Generally no adverse effect expected ¹
50 to 55 dB	60 to 65 dB		
45 to 50 dB	55 to 60 dB		
40 to 45 dB	50 to 55 dB		
< 40 dB	< 50 dB		

1 For further information see Volume 5 Appendix SV-001-000
2 For details see relevant Volume 5 Appendix SV-004

Legend - General features

- Route in bored tunnel
- Route in green tunnel
- Route on surface
- Depot, station, headhouse or portal building
- Community from boundary boundary

Engineering earthworks:

- Embankment
- Cutting

Non engineering earthworks:

- Embankment
- Cutting

Legend - Sound related features

- Envisaged mitigation to avoid / reduce significant noise effects:
 - Landscaping and/or fence barriers*
 - Engineering e.g. cuttings (green tunnels separately marked)
- Envisaged measures further reducing noise effects:
 - Other environmental e.g. landscaping
 - Engineering e.g. cuttings

* Labelled with total barrier height above rail level

- Airborne sound study area
- Potential additional noise insulation (triggered by maximum sound levels at night)¹
- Potential additional noise insulation (triggered by WHO Night Noise Guidelines Interim Target)¹
- Potential noise insulation (triggered by Noise Insulation Regulations 1996)²

Map Number: **SV-01-016**

Map Name: **Operational Sound Contour Maps and Likely Significant Effects**

Community Forum Area CFA09: Central Chilterns

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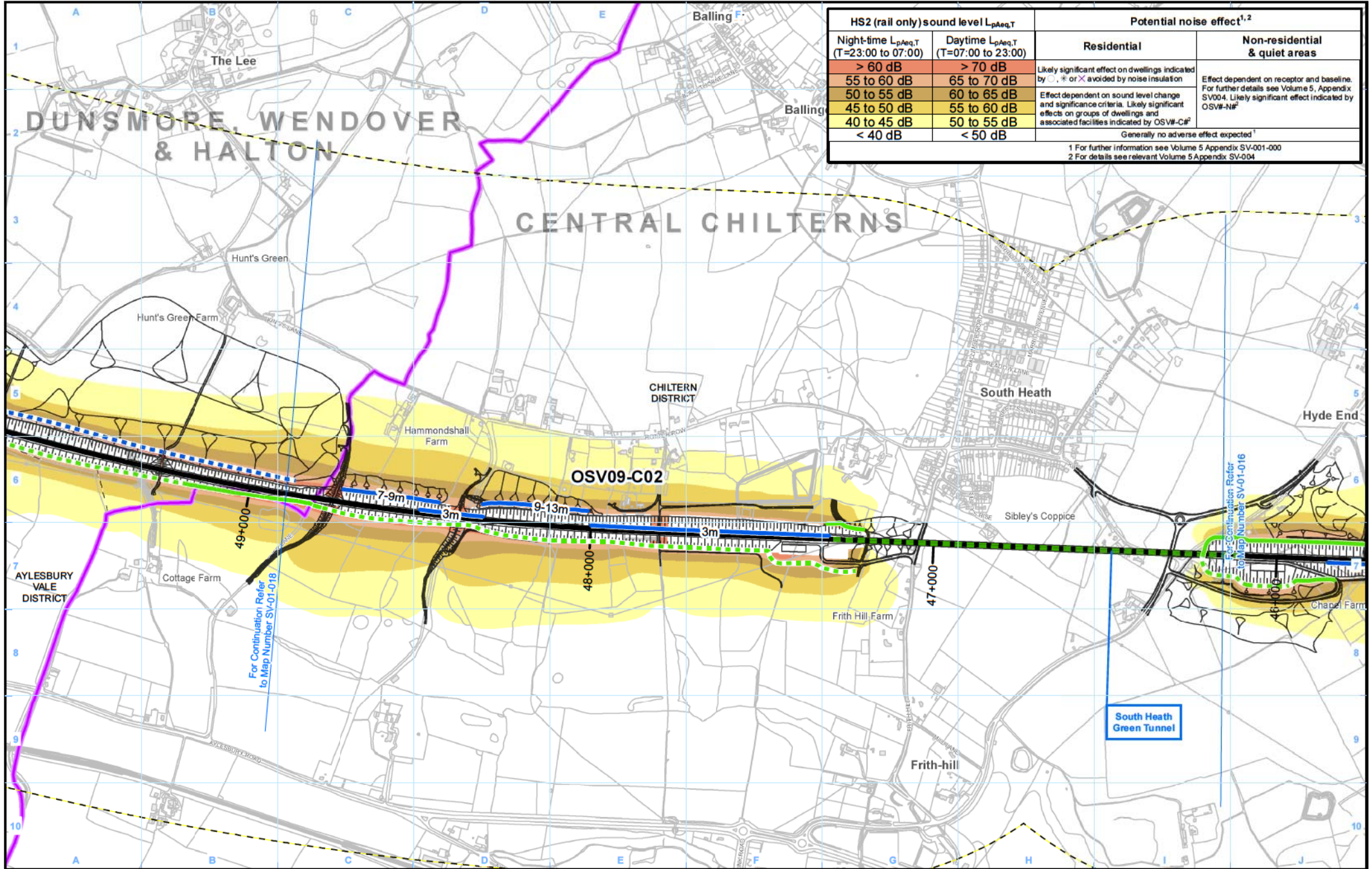
Scale at A3: 1:10,000

Scale bar: 0, 100, 200, 300, 400 Metres

North arrow symbol

P7573 (1)

HOC/0518/0014



HS2 (rail only) sound level L _{pAeq,T}		Potential noise effect ^{1,2}	
Night-time L _{pAeq,T} (T=23:00 to 07:00)	Daytime L _{pAeq,T} (T=07:00 to 23:00)	Residential	Non-residential & quiet areas
> 60 dB	> 70 dB	Likely significant effect on dwellings indicated by ○, * or ✕ avoided by noise insulation	Effect dependent on receptor and baseline. For further details see Volume 5, Appendix SV004. Likely significant effect indicated by OSVW-N# ²
55 to 60 dB	65 to 70 dB	Effect dependent on sound level change and significance criteria. Likely significant effects on groups of dwellings and associated facilities indicated by OSVW-C# ²	Generally no adverse effect expected ¹
50 to 55 dB	60 to 65 dB		
45 to 50 dB	55 to 60 dB		
40 to 45 dB	50 to 55 dB		
< 40 dB	< 50 dB		

1 For further information see Volume 5 Appendix SV-001-000
2 For details see relevant Volume 5 Appendix SV-004

P7573 (2)

- Legend - General features**
- Route in bored tunnel
 - Route in green tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community forum boundary

- Engineering earthworks:**
- Embankment
 - Cutting
- Non engineering earthworks:**
- Embankment
 - Cutting

- Legend - Sound related features**
- Envisaged mitigation to avoid / reduce significant noise effects:
 - Landscaping and/or fence barriers*
 - Engineering e.g. cuttings (green tunnels separately marked)
 - Envisaged measures further reducing noise effects:
 - Other environmental e.g. landscaping
 - Engineering e.g. cuttings

- Airborne sound study area
- Potential additional noise insulation (triggered by maximum sound levels at night)¹
- Potential additional noise insulation (triggered by WHO Night Noise Guidelines Interim Target)¹
- Potential noise insulation (triggered by Noise Insulation Regulations 1996)²

* Labelled with total barrier height above rail level

Map Number: SV-01-017

Map Name: Operational Sound Contour Maps and Likely Significant Effects

Community Forum Area CFA09: Central Chilterns

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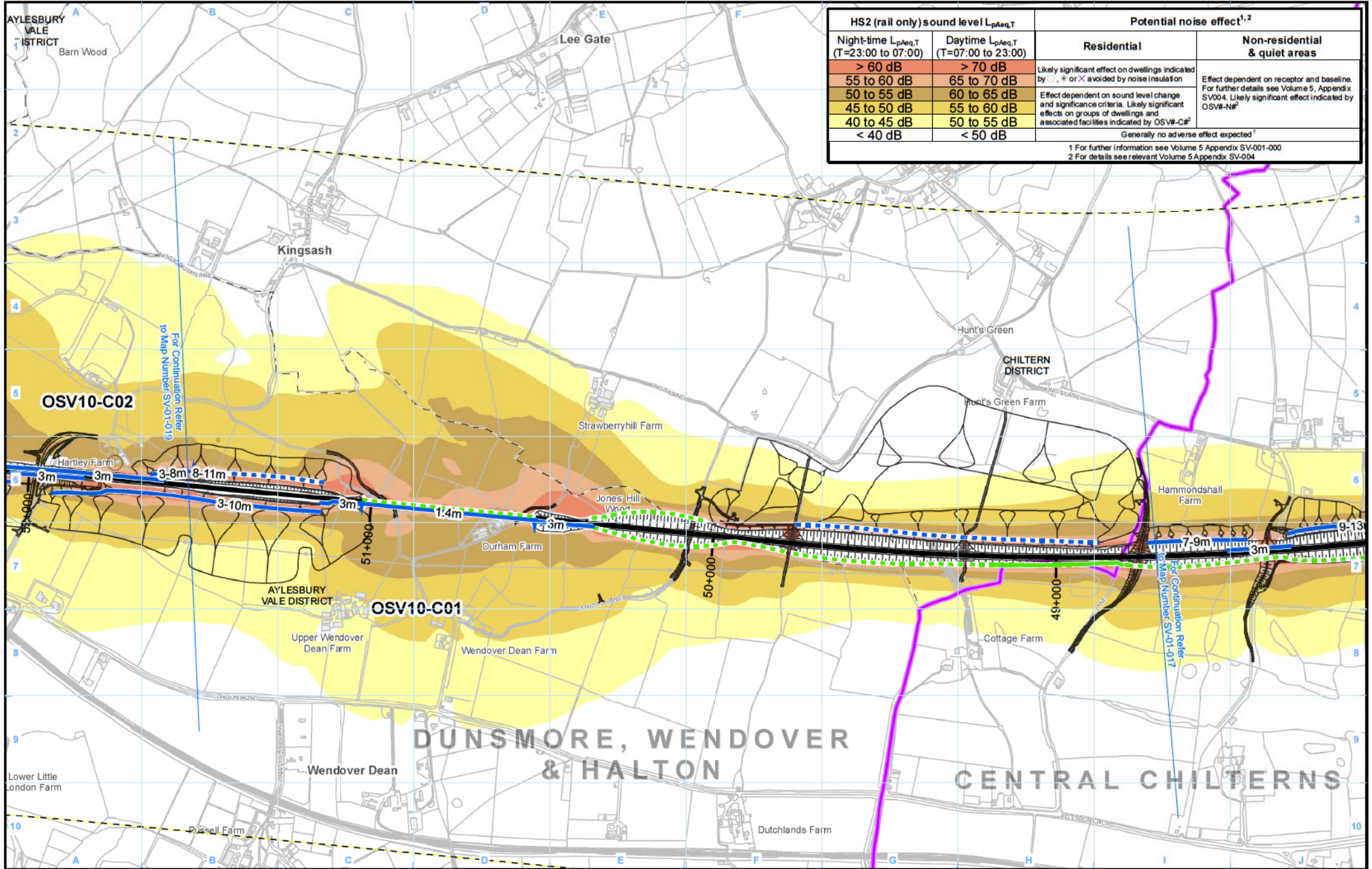
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Doc Number: C250-ARP-EV-MAP-000-003559

HOC/10518/0015



HS2 (rail only) sound level L _{pAeq,T}		Potential noise effect ^{1,2}	
Night-time L _{pAeq,T} (T=23:00 to 07:00)	Daytime L _{pAeq,T} (T=07:00 to 23:00)	Residential	Non-residential & quiet areas
> 60 dB	> 70 dB	Likely significant effect on dwellings indicated by ○, * or ✕ avoided by noise insulation	Effect dependent on receptor and baseline. For further details see Volume 5, Appendix SV004. Likely significant effect indicated by OSW-N# ²
55 to 60 dB	65 to 70 dB	Effect dependent on sound level change and significance criteria. Likely significant effects on groups of dwellings and associated facilities indicated by OSW-C# ²	Generally no adverse effect expected ¹
50 to 55 dB	60 to 65 dB		
45 to 50 dB	55 to 60 dB		
40 to 45 dB	50 to 55 dB		
< 40 dB	< 50 dB		

1 For further information see Volume 5 Appendix SV-001-000
2 For details see relevant Volume 5 Appendix SV-004

P7573 (3)

- Legend - General features**
- Route in bored tunnel
 - Route in green tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community farm boundary

- Engineering earthworks:**
- Embankment
 - Cutting
- Non engineering earthworks:**
- Embankment
 - Cutting

- Legend - Sound related features**
- Envisaged mitigation to avoid / reduce significant noise effects:
 - Landscaping and/or fence barriers*
 - Engineering e.g. cuttings (green tunnels separately marked)
 - Envisaged measures further reducing noise effects:
 - Other environmental e.g. landscaping
 - Engineering e.g. cuttings

- Airborne sound study area
 - Potential additional noise insulation (triggered by maximum sound levels at night)¹
 - Potential additional noise insulation (triggered by WHO Night Noise Guidelines Interim Target)¹
 - Potential noise insulation (triggered by Noise Insulation Regulations 1996)²
- * Labelled with total barrier height above rail level

Map Number: SV-01-018

Map Name: Operational Sound Contour Maps and Likely Significant Effects

Community Forum Area CFA10: Dunsmore, Wendover & Halton

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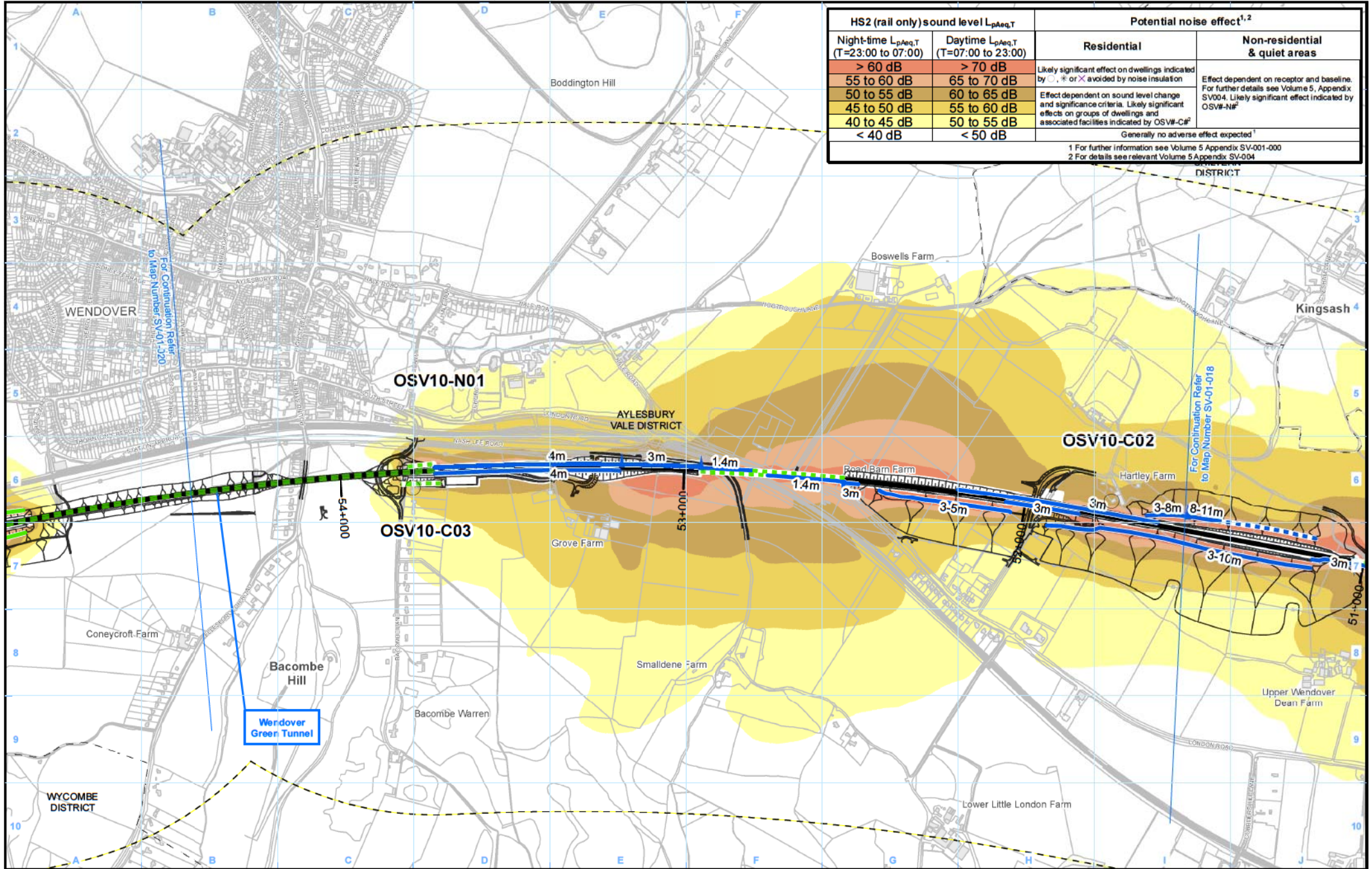
Doc Number: C250-ARP-EV-MAP-000-003560

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HOC/0518/0016

HS2 (rail only) sound level L _{pAeq,T}		Potential noise effect ^{1,2}	
Night-time L _{pAeq,T} (T=23:00 to 07:00)	Daytime L _{pAeq,T} (T=07:00 to 23:00)	Residential	Non-residential & quiet areas
> 60 dB	> 70 dB	Likely significant effect on dwellings indicated by ○, * or ✕ avoided by noise insulation	Effect dependent on receptor and baseline. For further details see Volume 5, Appendix SV004. Likely significant effect indicated by OSV#-NW ²
55 to 60 dB	65 to 70 dB		
50 to 55 dB	60 to 65 dB	Effect dependent on sound level change and significance criteria. Likely significant effects on groups of dwellings and associated facilities indicated by OSV#-C# ²	
45 to 50 dB	55 to 60 dB		
40 to 45 dB	50 to 55 dB		
< 40 dB	< 50 dB	Generally no adverse effect expected ¹	

1 For further information see Volume 5 Appendix SV-001-000
 2 For details see relevant Volume 5 Appendix SV-004



- Legend - General features**
- Route in bored tunnel
 - Route in green tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community farm boundary

- Engineering earthworks:**
- Embankment
 - Cutting
- Non engineering earthworks:**
- Embankment
 - Cutting

- Legend - Sound related features**
- Envisaged mitigation to avoid / reduce significant noise effects:
 - Landscaping and/or fence barriers*
 - Engineering e.g. cuttings (green tunnels separately marked)
 - Envisaged measures further reducing noise effects:
 - Other environmental e.g. landscaping
 - Engineering e.g. cuttings

- Airborne sound study area
- Potential additional noise insulation (triggered by maximum sound levels at night)¹
- Potential additional noise insulation (triggered by WHO Night Noise Guidelines Interim Target)¹
- Potential noise insulation (triggered by Noise Insulation Regulations 1996)²

* Labelled with total barrier height above rail level

Map Number: SV-01-019
 Map Name: Operational Sound Contour Maps and Likely Significant Effects
 Community Forum Area CFA10: Dunsmore, Wendover & Halton

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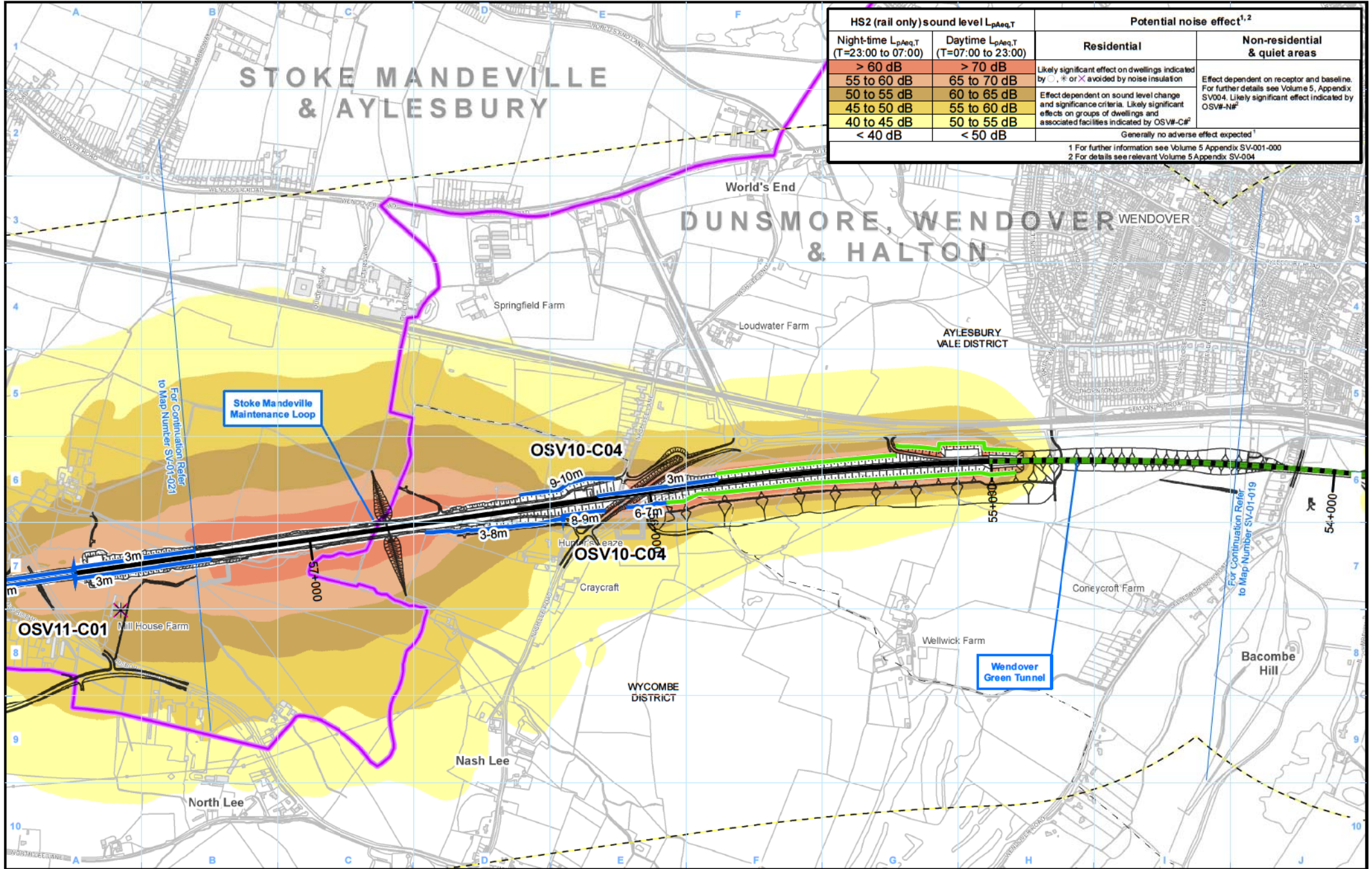
Doc Number: C250-ARP-EV-MAP-000-003561

STOKE MANDEVILLE & AYLESBURY

DUNSMORE, WENDOVER & HALTON

HS2 (rail only) sound level L _{pAeq,T}		Potential noise effect ^{1,2}	
Night-time L _{pAeq,T} (T=23:00 to 07:00)	Daytime L _{pAeq,T} (T=07:00 to 23:00)	Residential	Non-residential & quiet areas
> 60 dB	> 70 dB	Likely significant effect on dwellings indicated by ○, * or ✕ avoided by noise insulation	Effect dependent on receptor and baseline. For further details see Volume 5, Appendix SV004. Likely significant effect indicated by OSV#-N#
55 to 60 dB	65 to 70 dB		
50 to 55 dB	60 to 65 dB	Effect dependent on sound level change and significance criteria. Likely significant effects on groups of dwellings and associated facilities indicated by OSV#-C#	
45 to 50 dB	55 to 60 dB		
40 to 45 dB	50 to 55 dB		
< 40 dB	< 50 dB	Generally no adverse effect expected ¹	

1 For further information see Volume 5 Appendix SV-001-000
2 For details see relevant Volume 5 Appendix SV-004



- Legend - General features**
- Route in bored tunnel
 - Route in green tunnel
 - Route on surface
 - Depot, station, headhouse or portal building
 - Community forum boundary

- Engineering earthworks:**
- Embankment
 - Cutting
- Non engineering earthworks:**
- Embankment
 - Cutting

- Legend - Sound related features**
- Envisaged mitigation to avoid / reduce significant noise effects:
 - Landscaping and/or fence barriers*
 - Engineering e.g. cuttings (green tunnels separately marked)
 - Envisaged measures further reducing noise effects:
 - Other environmental e.g. landscaping
 - Engineering e.g. cuttings

- Airborne sound study area
 - Potential additional noise insulation (triggered by maximum sound levels at night)¹
 - Potential additional noise insulation (triggered by WHO Night Noise Guidelines Interim Target)¹
 - Potential noise insulation (triggered by Noise Insulation Regulations 1996)²
- * Labelled with total barrier height above rail level

Map Number: SV-01-020

Map Name: Operational Sound Contour Maps and Likely Significant Effects

Community Forum Area CFA10: Dunsmore, Wendover & Halton

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P7573 (5)

See text for full description and extent of significant effects. (*) Where SES/AP is reason for significant effect.

Receptor/significant effect removed/added (as a result of amendment*: AP2-XXX-YYY). SES/AP change ref.
 Significant effect descriptor
 Reduced effect Increased effect

Significant effect OSV11-N01 removed (as a result of amendment AP2-011-002)

Significant effect OSV11-C03 removed (as a result of amendment AP2-011-002)

Realignment of Princes Risborough to Aylesbury Line

A4010 Stoke Mandeville Bypass Overbridge

OSV11-C02

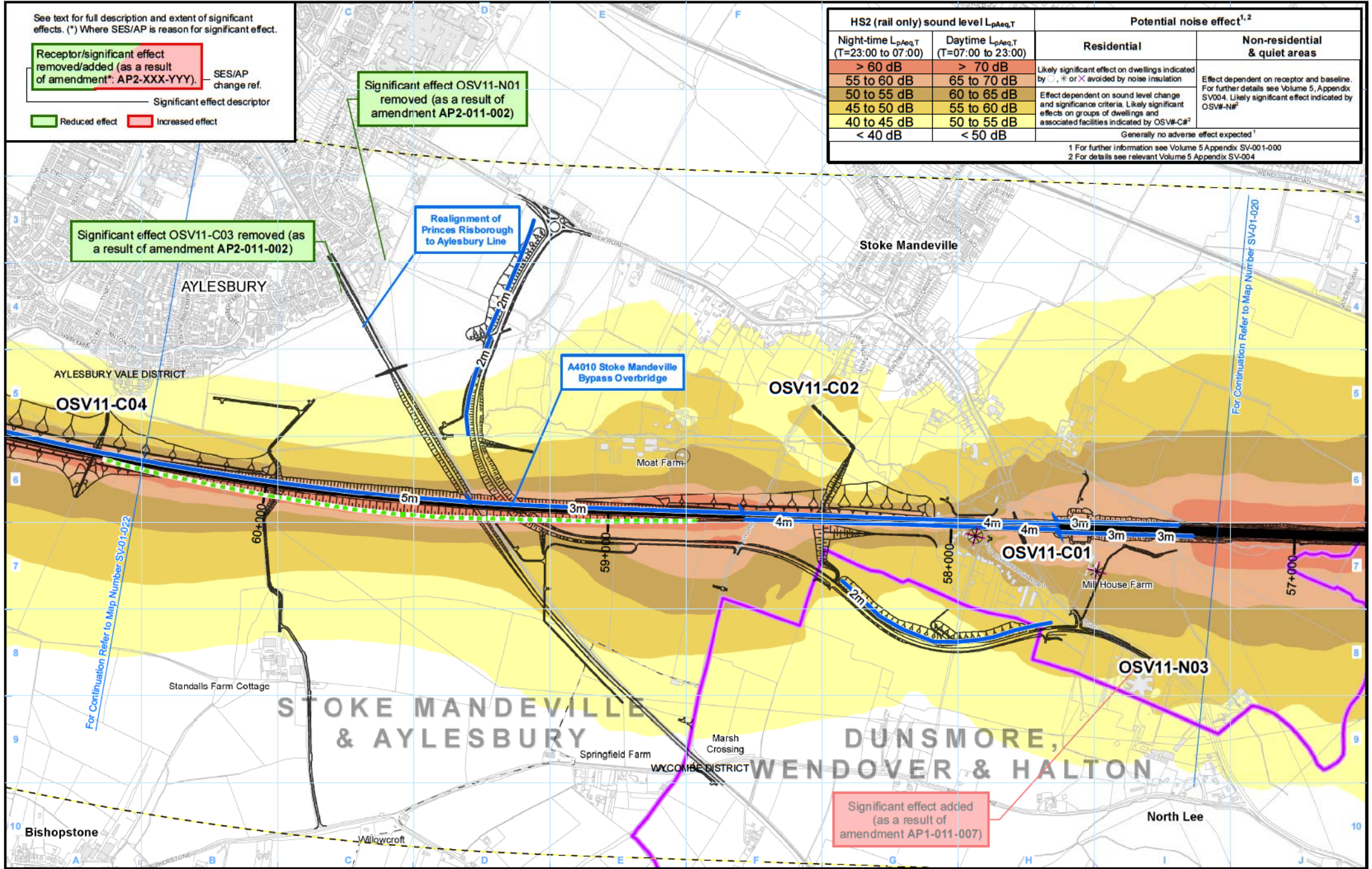
OSV11-C01

OSV11-N03

Significant effect added (as a result of amendment AP1-011-007)

HS2 (rail only) sound level L _{pAeq,T}		Potential noise effect ^{1,2}	
Night-time L _{pAeq,T} (T=23:00 to 07:00)	Daytime L _{pAeq,T} (T=07:00 to 23:00)	Residential	Non-residential & quiet areas
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55 to 60 dB	65 to 70 dB	Effect dependent on sound level change and significance criteria. Likely significant effects on groups of dwellings and associated facilities indicated by OSV#-C#	Generally no adverse effect expected ¹
50 to 55 dB	60 to 65 dB		
45 to 50 dB	55 to 60 dB		
40 to 45 dB	50 to 55 dB		
< 40 dB	< 50 dB		

¹ For further information see Volume 5 Appendix SV-001-000
² For details see relevant Volume 5 Appendix SV-004



Legend - General features
 Route in bored tunnel
 Route in green tunnel
 Route on surface
 Depot, station, headhouse or portal building
 Community farm boundary

Engineering earthworks:
 Embankment
 Cutting

Non engineering earthworks:
 Embankment
 Cutting

Legend - Sound related features
 Envisaged mitigation to avoid / reduce significant noise effects:
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 Engineering e.g. cuttings (green tunnels separately marked)
 Envisaged measures further reducing noise effects:
 Other environmental e.g. landscaping
 Engineering e.g. cuttings

Airborne sound study area
 Potential additional noise insulation (triggered by maximum sound levels at night)¹
 Potential additional noise insulation (triggered by WHO Night Noise Guidelines Interim Target)¹
 Potential noise insulation (triggered by Noise Insulation Regulations 1996)²

Map Number: SV-01-021
 Map Name: Operational Sound Contour maps and Likely Significant Effects SES and AP2 ES
 Community Forum Area CFA11: Stoke Mandeville and Aylesbury

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P7573 (6)