

High Speed Rail (Crewe – Manchester)

Supplementary Environmental Statement 2 and Additional Provision 2 Environmental Statement

Volume 5: Appendix LV-001-0MA03

Landscape and visual

Landscape and visual impact assessment and photomontages

MA03: Pickmere to Agden and Hulseheath

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Landscape and visual impact assessment and photomontages

MA03: Pickmere to Agden and Hulseheath



Department
for Transport

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High Speed Two (HS2) Limited
Two Snowhill
Snow Hill Queensway
Birmingham B4 6GA

Telephone: 08081 434 434

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.hs2.org.uk

A report prepared for High Speed Two (HS2) Limited:

ARUP+ ERM | FOSTER + PARTNERS | JACOBS
RAMBOLL | TYPESA | COSTAIN

MWJV

Mott MacDonald | WSP

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Part 1: Introduction

1.1 Structure of this appendix

- 1.1.1 This document is an appendix to the landscape and visual impact assessment (LVIA) which forms part of Volume 5 of the Supplementary Environmental Statement 2 (SES2) and Additional Provision 2 Environmental Statement (AP2 ES) for the Pickmere to Agden and Hulseheath (MA03) community area.
- 1.1.2 This appendix provides details of changes to the LVIA since the production of the High Speed Two (HS2) High Speed Rail (Crewe – Manchester) Environmental Statement (ES)¹ published in 2022 (the main ES) and Supplementary Environmental Statement 1 (SES1) and Additional Provision 1 Environmental Statement (AP1 ES)² also published in 2022.
- 1.1.3 This document is comprised of three parts:
- Part 1: introduction;
 - Part 2: a summary of engagement with technical stakeholders; and
 - Part 3: the Additional Provision 2 Environmental Statement.
- 1.1.4 This report should be read in conjunction with the main ES Volume 5, Appendix: LV-001-0MA03 and the SES1 and AP1 ES Volume 5, Appendix: LV-001-0MA03.
- 1.1.5 Maps relevant to this appendix are contained in the SES2 and AP2 ES Volume 5, Landscape and visual Map Book. These include:
- Map Series LV-07 – Construction Phase Zone of Theoretical Visibility (ZTV) and Viewpoints;
 - Map Series LV-08 – Operational Phase Zone of Theoretical Visibility (ZTV) and Viewpoints; and
 - Map Series LV-17 – Route-wide Landscape Context.
- 1.1.6 The need for a number of corrections to the contents of the main ES and SES1 and AP1 ES have been identified. These are set out in report: Corrections to Volume 5 of the January 2022 Environmental Statement and the July 2022 Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement, see SES2 and AP2 ES Volume 5, Appendix: CT-009-00000.
- 1.1.7 In order to differentiate between the original scheme and the subsequent changes, the following terms are used:
- ‘the original scheme’ – the Bill scheme submitted to Parliament in 2022, which was assessed in the main ES;
 - ‘the SES1 scheme’ – the original scheme with any changes described in SES1 that are within the existing powers of the Bill;
 - ‘the AP1 revised scheme’ – the original scheme as amended by SES1 changes and AP1 amendments;
 - ‘the SES2 scheme’ – the original scheme with any changes described in SES1 (submitted in July 2022) and the SES2; and
 - ‘the AP2 revised scheme’ – the original scheme as amended by SES1 and SES2 changes (as relevant) and AP2 amendments.

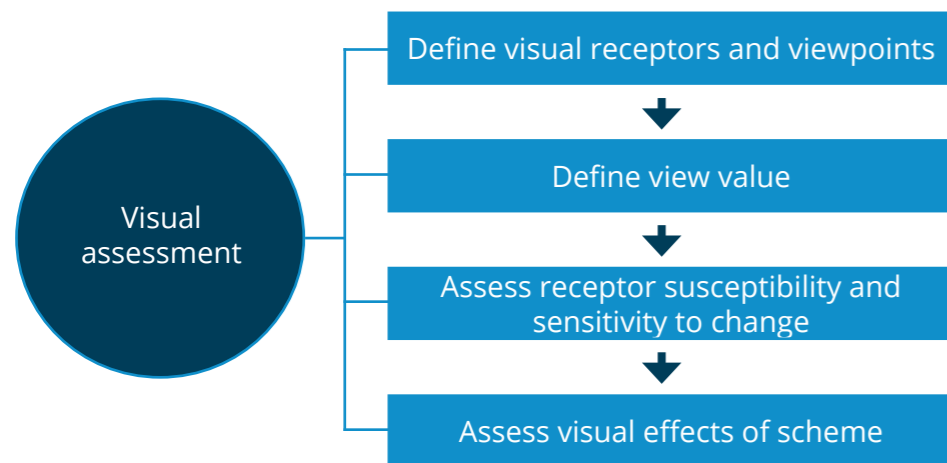
¹ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), Environmental Statement. Available online at: <https://www.gov.uk/government/collections/hs2-phase2b-crewe-manchester-environmental-statement>

² High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement. Available online at:

<https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-supplementary-environmental-statement-1-and-additional-provision-1-environmental-statement>

1.2 Visual assessment

- 1.2.1 Descriptions of the identified viewpoints are provided in this section. The viewpoints are shown on SES2 and AP2 ES Volume 5, Landscape and visual Map Book: Map Series LV-07 (construction) and Map Series LV-08 (operation). For each viewpoint, the first part of the baseline description relates to the view during the winter and the second part relates to the summer view. Where relevant the third part relates to the view at night-time and the fourth part to the future baseline.
- 1.2.2 The assessment considers the value of the view and the susceptibility of the viewer to the SES2 scheme and/or AP2 revised scheme, and the overall sensitivity of the visual receptors.

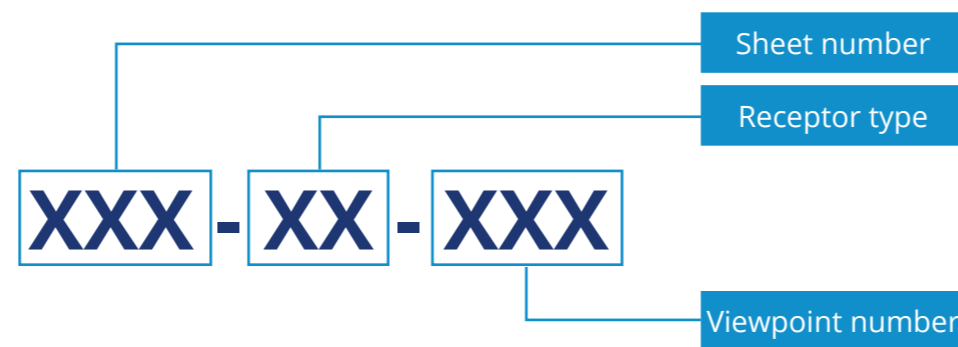


Above: The visual assessment process

- 1.2.3 Effects have been assessed where relevant for construction, operation year 1, year 15 and year 30. A summary of all significant visual effects is given in the SES2 and AP2 ES Volume 2, Pickmere to Agden and Hulseheath report (MA03).
- 1.2.4 Photographs have been included to represent the view from visual receptors during winter and, where relevant, summer. For some visual receptors no appropriate or accessible location from which to capture representative photographs of the view was available, therefore no photograph has been included and the assessment has been undertaken based on professional judgement.
- 1.2.5 All photography included within this document has been taken in accordance with the methodology set out within the Technical Note – Approach to photography contained within the Environmental Impact Assessment Scope and Methodology Report (SMR)³ (see Volume 5, Appendix: CT-001-00001 of the main ES).
- 1.2.6 Photomontages have also been included for relevant viewpoints. All photography associated with photomontages is verifiable and has been taken in accordance with the Technical Note – Approach to verifiable photomontages, contained within the SMR (see Volume 5, Appendix: CT-001-00001 of the main ES). All verifiable photography includes additional image specification and data information.

1.3 Visual receptors

- 1.3.1 The number on each viewpoint identifies the viewpoint locations which are shown on SES2 and AP2 ES Volume 5, Landscape and visual Map Book: Map Series LV-07 (construction) and Map Series LV-08 (operation). The following numbering convention is used:



Above: Viewpoint numbering convention used for HS2 Phase 2b

- 1.3.2 In each case, the middle number (xxx.xx.xxx) identifies the type of receptor represented, as described below (with more detail in the SMR of the main ES):
01. Protected views – these relate to those viewpoints, panoramas and viewing corridors that have been designated by local authorities, county councils or other relevant stakeholders. People enjoying protected views have a high susceptibility to change;
02. Residential views – residents have a high susceptibility to changes in their views, as attention is often focused on the landscape surrounding the property, rather than on another focused activity (as will be the case in predominantly employment or industrial areas);
03. Recreational views – these receptors generally have a high susceptibility to changes in their views, as attention is focused on the enjoyment of the landscape. Receptors engaged in activities whereby attention is focused on the surrounding landscape also have a high susceptibility to changes in their views;
04. Transport views – travel through an area is often the means by which the greatest number of people view the landscape. Because of the glimpsed nature of the view from trains or vehicles, people traveling through an area on main roads have a low susceptibility to changes in their views, while those on scenic routes have a medium susceptibility. People travelling through urban areas in vehicles have a low susceptibility to changes in their views although in residential areas this increases to medium;
05. Hotels and healthcare institutions – people staying in hotels or healthcare institutions and schools have periods of time where their attention may be focused on the landscape, whilst at other times attention is more likely to be focused on other activities. Based on the level of interaction with the surrounding landscape, these receptors have a medium susceptibility to changes in their views; and
06. Employment – people at work and within educational institutions (other than residential educational facilities) are the least susceptible receptors, as their attention is likely to be focussed on their work activity. These receptors have a low susceptibility to changes in their views.
- 1.3.3 Night-time visual survey and assessments have only been undertaken where continuous working during construction or additional lighting in operation has the potential to result in significant effects on residential and certain recreational receptors. Further detail is set out within the Technical Note – Approach to night-time assessment, contained within the SMR of the main ES.

³ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), Environmental Statement, Environmental Impact Assessment Scope and Methodology Report, Volume 5, Appendix: CT-001-00001: <https://www.gov.uk/government/collections/cross-topic-technical-appendices-for-high-speed-rail-crewe-manchester-environmental-statement>

Part 2: Engagement with technical stakeholders

2.1 Introduction

- 2.1.1 It has not been possible to discuss relevant landscape character areas and viewpoints with local authorities. However, there will be further engagement with local authorities regarding this matter during the passage of the Bill.

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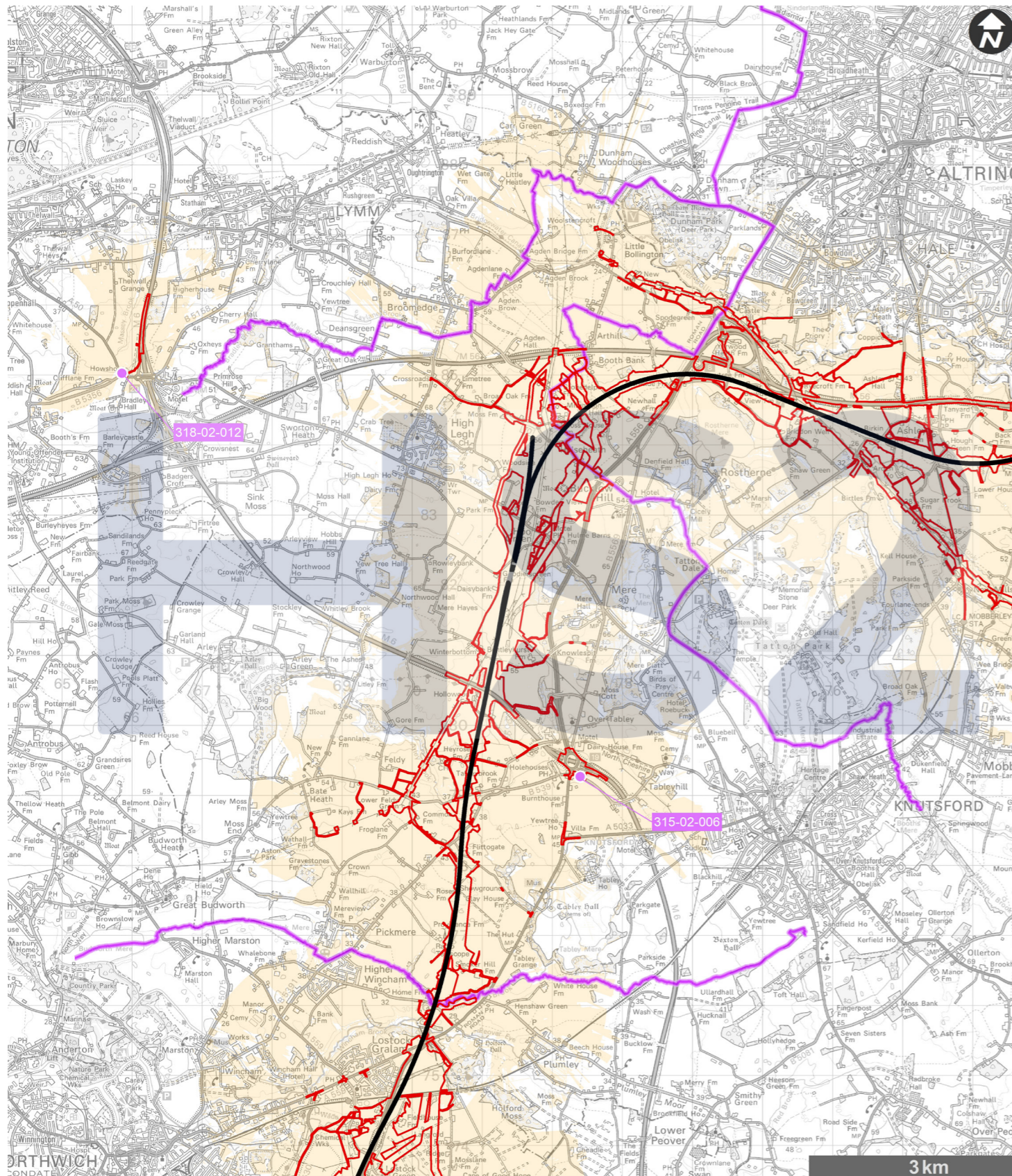
Part 3: Additional Provision 2 Environmental Statement

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3.1 Visual assessment

Overview of viewpoints and photomontages in the community area affected by AP2 amendments

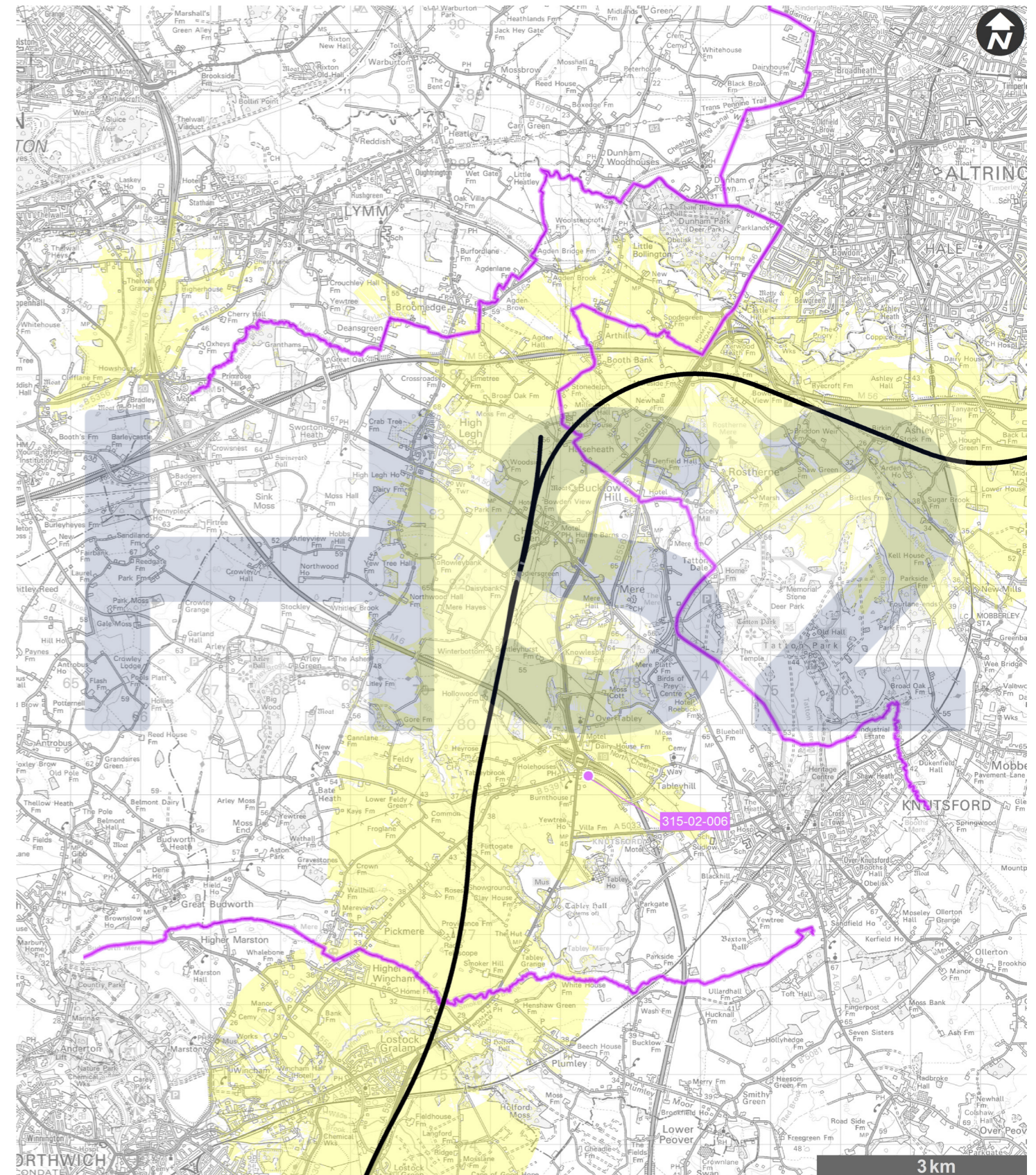
Construction phase



- Route in tunnel
- Route on surface
- Community area boundary
- Non significantly affected viewpoint
- Significantly affected viewpoint
- Non significantly affected photomontage
- Significantly affected photomontage
- Land potentially required during construction
- ZTV construction

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Operation phase



- Route in tunnel
- Route on surface
- Community area boundary
- Non significantly affected viewpoint
- Significantly affected viewpoint
- Non significantly affected photomontage
- Significantly affected photomontage
- ZTV operation year 1

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Viewpoint 315-02-006: view north from Tabley Hill Lane

This new viewpoint is located in an area where there will be changes from the original scheme and is representative of views experienced by residents of properties near the junction of Tabley Hill Lane, the B5391 Pickmere Lane and the A556 Chester Road, road users along Tabley Hill Lane and patrons of The Windmill public house and service station.

Winter view (baseline)

Date taken: 29/03/2022 (stitched panorama)



Summer view (baseline)

Date taken: 29/07/2022 (stitched panorama)



Camera:	Canon EOS 6D, 50mm lens	
Approximate GPS co-ordinates ref.	372397.93, 379268.99	
Value of the viewpoint:	This viewpoint has a medium value. The view is of an open rural landscape with few distinctive features. Several detracting elements include moving traffic and lighting on the M6, pylons and the service station on Tabley Hill Lane.	Sensitivity of the receptor: High
Susceptibility of the receptor to the change arising from the AP2 revised scheme:	The susceptibility of these receptors is high . Residents have a strong interest in their visual environment and are therefore highly susceptible to visual change arising from the construction and operation of the AP2 revised scheme. Road users and visitors to the public house have a lower susceptibility as their attention is less focused on their surroundings.	



Viewpoint 315-02-006: view north from Tabley Hill Lane

Visual baseline description

Winter	The view along the narrow Tabley Hill Lane, is lined by well managed hedgerows with trees, which partially screen views over the farmland to the north and south. Moving vehicles on the M6, pylons and scattered buildings are visible in the middle distance to the north. Views from the properties on the north side of Tabley Hill Lane are largely open, with near-distance views to the land and vegetation alongside the M6 slip road. South-west of M6 junction 19, views from the properties on the A556 Chester Road are dominated by the road, service station and junction in the near-distance. West of the A556 Chester Road, views from residential properties are heavily screened by mature vegetation alongside M6 junction 19. North of M6 junction 19, views south-west from the residential properties are dominated by the through-about and motorway slip roads, with highway and other vegetation forming the backdrop to views to the south.
Summer	Trees in leaf have a greater presence and screening effect, but the summer view is broadly similar to the winter view.
Night-time	Tabley Hill Lane is unlit except for lighting by the service station. The A556 Chester Road and Chester Road to the north of junction 19 are lit. The M6 is unlit except around junction 19. Street lighting contributes to skyglow in the near distance of the view from residential properties.

Future baseline description

Construction (2025)	There are no committed developments which will change the baseline.
Operation (2038)	There are no committed developments which will change the baseline.

Visual impact assessment

		Temporary effects during construction	Significance of effect
	Construction	This new viewpoint is located in an area where there will be changes from the original scheme. Residents on the north side of Tabley Hill Lane will experience noticeable changes to near-distance views as a result of the amendment Additional land permanently required for modifications to M6 junction 19 (AP2-003-002), due to the introduction of construction activity and the loss of vegetation, which will open up views of existing road infrastructure. For residents on the south side of Tabley Hill Lane, construction works will be perceptible, although partially screened by intervening buildings and vegetation. Construction activity will be visible beyond the existing roads in the near distance of the view for residents on the A556 Chester Road, south-west of M6 junction 19. However, for residents to the west, including residents of Holly Grove, views of the amendment will be heavily screened by intervening mature vegetation. North of M6 junction 19, residents of the B5569 Chester Road will view construction activity beyond the existing junction and slip roads. For road users of Tabley Hill Lane, construction activity will be partially filtered by roadside hedgerows and trees to the east, and largely screened by buildings at the west end of the lane. Construction activity will be visible in near-distance views for road users on the M6 slip road and on the adjacent sections of the A556 Chester Road. There will be a medium magnitude of change and a moderate adverse (significant) effect. The amendment will therefore give rise to a new significant effect.	Moderate adverse (significant)
	Construction night-time	The night-time view in construction was not assessed as there is no requirement for continuous construction lighting in this location.	Not assessed
	Construction cumulative	There are no developments which will result in construction cumulative effects.	No cumulative effect
		Permanent effects during operation	Significance of effect
Year 1	Winter	As a result of vegetation lost during construction, residents on the north side of Tabley Hill Lane will have more open views of highway infrastructure and traffic on the M6 slip road, including the additional lane on the northbound through-about and widened slip road, which will be visible across much of the view. Residents to the south-west of M6 junction 19 will experience a perceptible change to near-distance views of roads as a result of the amendment as intervening buildings and vegetation will partially screen views of the amendment from Tabley Hill Lane and properties to the south. However, the loss of vegetation south-east of M6 junction 19, removed during construction, will reduce the level of screening available of traffic on the M6 slip road. The baseline view from residential properties west of the A556 Chester Road will remain largely unchanged, due to heavy screening by existing intervening mature vegetation. North of M6 junction 19, the amendment will be seen beyond the existing junction and slip roads. The loss of vegetation south-east of M6 junction 19, removed during construction, will reduce the backdrop of vegetation in the middle distance of the view. At year 1, the landscape mitigation planting and replacement hedgerow will not be sufficiently established to provide any screening or visual integration. There will be a medium magnitude of change and a moderate adverse (significant) effect. The amendment will therefore give rise to a new significant effect.	Moderate adverse (significant)
	Night-time	Existing lighting columns at the junction, will have been replaced, therefore, the level of operational lighting will be comparable to the baseline. The loss of vegetation, removed during construction, will have a limited influence on the filtering of views of lighting columns associated with the motorway junction although traffic headlights would be more perceptible. The amendment will give rise to a low magnitude of change and a minor adverse (non-significant) effect. The amendment will therefore give rise to a new non-significant effect.	Minor adverse (non-significant)
Year 15	Summer	For the majority of receptors, the proportion of the view affected by the amendment will be reduced as a result of maturing landscape mitigation planting. This planting will provide landscape integration and partial filtering of views of the additional lane on the northbound through-about and widened slip road. However, the amendment will remain partially visible from properties south-west and north of M6 junction 19, beyond the existing highways infrastructure. The amendment will give rise to a low magnitude of change and a minor adverse (non-significant). The amendment will therefore give rise to a new non-significant effect.	Minor adverse (non-significant)
	Night-time	Existing lighting columns at the junction will have been replaced therefore, the level of operational lighting will be comparable to the baseline. The maturing landscape mitigation planting will partially filter views of headlights of vehicles using the amended junction, The amendment will give rise to a negligible magnitude of change and a negligible (non-significant) effect. The amendment will therefore give rise to a new non-significant effect.	Negligible (non-significant)
Year 30	Summer	Views from Tabley Hill Lane and properties to the south-east of M6 junction 19, will continue to be filtered by the greater maturity of landscape mitigation planting. The additional lane on the northbound through-about and widened slip road will continue to be integrated by the further maturing of landscape mitigation planting in views from properties to the south-west and north of M6 junction 19. The amendment will give rise to a negligible magnitude of change and a negligible (non-significant) effect. The amendment will therefore give rise to a new non-significant effect.	Negligible (non-significant)
	Night-time	Existing lighting columns at the junction, will have been replaced, therefore, the level of operational lighting will be comparable to the baseline. The greater maturity of landscape mitigation planting will provide further screening of vehicle headlights. The amendment will give rise to a negligible magnitude of change and a negligible (non-significant) effect. The amendment will therefore give rise to a new non-significant effect.	Negligible (non-significant)
Operation cumulative		There are no developments which will result in operational cumulative effects.	No cumulative effect

Viewpoint 318-02-012: view north-east from Howshoots Farm, A50 Cliff Lane

This new viewpoint is located in an area where there will be changes from the original scheme and is representative of views experienced by residents at Howshoots Farm and road users along the A50 Cliff Lane and M6 junction 20a northbound slip road.

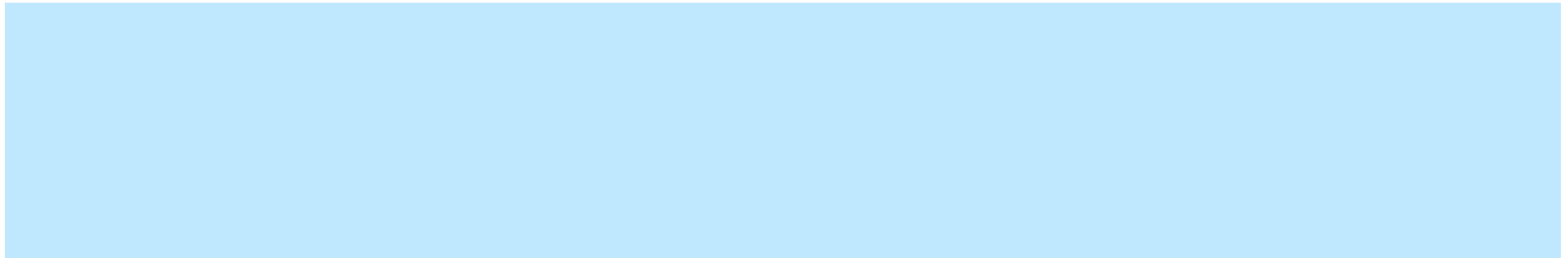
Winter view (baseline)

Date taken: 29/03/2022 (stitched panorama)



Summer view (baseline)

It has not been possible to capture summer photography.



Camera:	Canon EOS 6D, 50mm lens	
Approximate GPS co-ordinates ref.	365857.78, 385024.61	
Value of the viewpoint:	This viewpoint has a medium value. The view is of open farmland with limited hedgerows and trees along field and road boundaries. Detracting elements include lighting columns on Cliff Lane and the M6.	Sensitivity of the receptor:
Susceptibility of the receptor to the change arising from the AP2 revised scheme:	The susceptibility of these receptors is high . Residents have a strong interest in their visual environment and are therefore highly susceptible to visual change arising from the construction and operation of the AP2 revised scheme. Road users have a lower susceptibility as their attention is less focused on their surroundings.	High



Viewpoint 318-02-012: view north-east from Howshoots Farm, A50 Cliff Lane

Visual baseline description

Winter	The view is across gently rolling farmland, bordered by the M6 to the east and A50 Cliff Lane to the south-west. Characteristic features of the view are trees and hedgerows along field and road boundaries, limited woodland, scattered trees and small copses and isolated properties. Massey Brook to the west is defined by a sinuous line of vegetation in the middle distance. Trees near to the property and vegetation along the M6 provide only limited screening to views. There are open views from the front of the property to the A50 Cliff Lane at the junction with the M6. Farm outbuildings partially screen views to the west. Road users along the A50 Cliff Lane have views over the low roadside hedgerow, across the open farmland. Road users on the M6 including the slip road, have elevated and open views across the farmland, due to the lack of intervening vegetation.
Summer	Trees in leaf have a greater presence and screening effect, but the summer view is broadly similar to the winter view.
Night-time	The M6 and its junction with the A50 Cliff Lane are lit. The A50 Cliff Lane is lit from the M6, immediately west of the junction with the B5356 Grappenhall Lane.

Future baseline description

Construction (2025)	There are no committed developments which will change the baseline.
Operation (2038)	There are no committed developments which will change the baseline.

Visual impact assessment

		Temporary effects during construction	Significance of effect
Construction		This new viewpoint is located in an area where there will be changes from the original scheme. Construction of the amendment, Additional land permanently required for modifications to M6 junction 20a (AP2-003-004), will be visible in the middle distance for residents of Howshoots Farm. There will also be near-distance views of the temporary access and passing construction traffic using the designated construction traffic route immediately to the north of the property. The elements associated with construction, including construction plant and earthworks will be out of character with existing views over open farmland. Vegetation removed in the middle distance, during construction, will slightly increase the visibility of the motorway across a proportion of the view especially as the M6 and slip road are elevated above the adjacent farmland. There will be a medium magnitude of change and a moderate adverse (significant) effect. The amendment will therefore give rise to a new significant effect.	Moderate adverse (significant)
Construction night-time		The night-time view in construction was not assessed as there is no requirement for continuous construction lighting in this location.	Not assessed
Construction cumulative		There are no developments which will result in construction cumulative effects.	No cumulative effect

		Permanent effects during operation	Significance of effect
Year 1	Winter	Viewpoint not assessed at AP2 during operation.	Not assessed
	Night-time	Viewpoint not assessed at AP2 during operation.	Not assessed
Year 15	Summer	Viewpoint not assessed at AP2 during operation.	Not assessed
	Night-time	Viewpoint not assessed at AP2 during operation.	Not assessed
Year 30	Summer	Viewpoint not assessed at AP2 during operation.	Not assessed
	Night-time	Viewpoint not assessed at AP2 during operation.	Not assessed
Operation cumulative		Viewpoint not assessed at AP2 during operation.	Not assessed

3.2 AP2 revised scheme assessment matrix

AP2 revised scheme visual assessment matrix

3.2.1 Table 1 below summarises the assessment of significance for all the representative viewpoints assessed as part of the AP2 revised scheme in the Pickmere to Agden and Hulseheath (MA03) community area. These are ordered from south to north along the route of the AP2 revised scheme. The assessment of significant effects is presented in SES2 and AP2 ES Volume 2, Pickmere to Agden and Hulseheath report (MA03) Section 11. The night-time assessment has only been undertaken for certain receptors with a view of proposed continuous lighting during either construction or operation. Further detail on this is provided within the Technical Note: Approach to night-time assessment, contained within the SMR. In most cases, in urban areas, additional lighting is not considered to give rise to significant effects due to the widespread presence of street lighting, lightspill from adjacent buildings and skyglow. Where there is no direct foreground visibility of additional lighting, no further assessment has been undertaken.

Table 1: AP2 visual assessment matrix summarising the assessment of significance for the viewpoints affected by the AP2 revised scheme identified in the Pickmere to Agden and Hulseheath (MA03) community area.

Viewpoints		Construction			Operation year 1 (2038)		Operation year 15 (2053)		Operation year 30 (2068)		Operation cumulative
		Winter	Night-time	Cumulative	Winter	Night-time	Summer	Night-time	Summer	Night-time	
315-02-006	View north from Tabley Hill Lane	Moderate adverse	Not assessed	No cumulative effect	Moderate adverse	Minor adverse	Minor adverse	Negligible	Negligible	Negligible	No cumulative effect
318-02-012	View north-east from Howshoots Farm, A50 Cliff Lane	Moderate adverse	Not assessed	No cumulative effect	Not assessed	Not assessed	Not assessed	Not assessed	Not assessed	Not assessed	Not assessed