

# A1 in Northumberland: Morpeth to Ellingham

Scheme Number: TR010059

# GEN.4 Justification for Significant Residual Effects WQ GEN.1.35

AFPF Regulation Rule 8(1)(b)

Planning Act 2008

Infrastructure Planning (Prescribed Forms and Procedure)

Regulations 2009



# Infrastructure Planning

Planning Act 2008

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

# The A1 in Northumberland: Morpeth to **Ellingham**

Development Consent Order 20[xx]

**GEN.4 Justification for Significant Residual Effects WQ GEN.1.35** 

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#### 1. JUSTIFICATION FOR RESIDUAL SIGNIFICANT EFFECTS

- 1.1.1. In order to address Written Question 1.35 (1.0 General Questions), this Appendix provides a justification for the residual significant effects reported in Chapter 5 to Chapter 17 [APP-040 to 062] of the ES and why no further mitigation is proposed to be implemented.
- 1.1.2. Table 1, Table 2 and Table 3 below summarise the likely significant environmental effects for the Scheme, listed for Part A, Part B and cumulative effects (including an assessment of the Scheme as a whole) respectively. Table 3 only presents the likely significant effects of the Scheme that are additional to the effects reported in Table 1 and Table 2. The tables also detail the mitigation measures associated with the effects and their delivery mechanisms, as well as any associated enhancement measures.

Planning Inspectorate Scheme: TR010059

Application Document Reference: TR010059/ 7.8.4



# Key to table:

P/T = Permanent or Temporary; D/I = Direct or Indirect; ST/MT/LT = Short-Term, Medium-Term or Long-Term; N/A = Not Applicable

Table 1 - Part A: Summary of Significant Effects (refer to Table 17-2 of Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2))

<b>Description of Effect</b>	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Chapter 6: Noise and Vibration						
Increase in noise levels at The Cottage	Operation	The noise barrier (PNB2)	СЕМР	Major Adverse D / P / LT	N/A	In addition to the proposed noise barriers, the following alternative mitigation measures were considered.
						Road speed and vehicle restrictions
						Whilst a reduction in the road speed limit or a restriction on noisy vehicles using the Scheme would have the potential to reduce noise levels, such measures are not normally suitable for use on motorways and all purpose trunk roads. This is acknowledged within DMRB LA 111 Noise and Vibration which notes that:
						"Speed limits or restrictions on noisy vehicle types are not normally practical for use on motorways and all purpose trunk roads"
						Modifications to affected buildings
						Receptor buildings themselves can be treated in order to improve the sound insulation of building façades whilst also considering appropriate ventilation provision. Modification of affected buildings, such as the installation of secondary glazing, has not been considered at this stage as the operational noise assessment is based on external levels incident on the façades of a receptor. Modifications to the building would not influence external noise levels and therefore would not reduce the impacts at receptors predicted to experience significant adverse effects as a result of the Scheme.
						The absolute noise levels at the receptors within groups 7 and 8 are not high and are below the threshold for triggering eligibility for secondary glazing under the Noise Insulation



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						Regulations (NIR). Amongst other criteria, eligibility under the NIR is triggered where the relevant noise level (LA10, 18hr Do-Something future year (2038)) is equal to or greater than 67.5 dB. Therefore, although secondary glazing will succeed in increasing the acoustic performance of windows (when windows are closed), the benefits achieved through the installation of secondary glazing are unlikely the fully perceived by the occupants particular given it is likely that these properties rely on opening windows for ventilation and cooling.  Loss of value  It should be noted that following a year and a day after the opening of the Scheme, residen would potentially be able to claim compensation for loss of value to their proper on the grounds of noise through Part 1 of the Land .Compensation Act 1973
Increase in noise levels at Joiners Cottage	Operation	The noise barrier (PNB2)	CEMP	Moderate adverse D / P / LT	N/A	
Increase in noise levels at New Houses Farm	Operation	The noise barrier (PNB3)	CEMP	Moderate Adverse D/P/LT	N/A	
Updated DMRB Guidance						
Potential for one additional significant adverse effect at Northgate Farm if the noise barrier (PNB1) cannot be built at this location, however, it is likely that this property would be eligible for compensation under the Noise Insulation Regulations (NIR) if this is the case	Operation	Noise enhancement barrier (PNB1), however due to design constraints the construction of this barrier is not yet confirmed.	N/A (Policy compliance enhancement measure)	Minor Adverse (considered to be significant under updated guidance) if PNB1 cannot be constructed D/P/LT	N/A	If PNB1 can be built, Northgate Farm is not predicted to experience a significant adverse operational noise effect.  If PNB1 cannot be built, Northgate Farm is predicted to experience a significant adverse operational noise effect. The following alternative mitigation measures were considered should this be the case.  Road speed and vehicle restrictions  Whilst a reduction in the road speed limit or a restriction on noisy vehicles using the Scheme would have the potential to reduce noise levels, such measures are not normally suitable for use on motorways and all purpose



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						trunk roads. This is acknowledged within DMRB LA 111 Noise and Vibration which notes that:
						"Speed limits or restrictions on noisy vehicle types are not normally practical for use on motorways and all purpose trunk roads"
						Modifications to affected buildings
						As noted in Chapter 6 Noise and Vibration Part A (APP-042), if PNB1 cannot be built, Northgate Farm is likely to be eligible for compensation under the Noise Insulation Regulations (NIR).
						Loss of value
						It should be noted that a year and a day following the opening of the Scheme, residents would potentially be able to claim compensation for loss of value to their property on the grounds of noise through the Part 1 of the Land Compensation Act 1973.
Chapter 7: Landscape and Visual				'	1	
Effects on the perception of landscape character in Landscape Character Area (LCA) 38b Lowland Rolling Farmland – Longhorsley, 35a Broad Lowland Valley – Coquet Valley	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of landscape and visual effects for Part B as set out in Chapter 7: Landscape and Visual Part A of the ES [APP-044] has identified that for those character areas identified, the construction effects would be significant during construction. The effects arising as a result of the presence of temporary construction works, plant, machinery and traffic movements combining to give rise to a moderate adverse (significant) effect. Potential additional mitigation measures comprising for example, extensive lengths of hoardings or temporary screen fences would be inappropriate within the scale and nature of the landscape, these being absent within the landscape, and their presence potentially leading to an increased adverse impact and significance of effect. To this end, the Applicant does not consider that additional



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigate the Scheme's effects on
						measures to mitigate the Scheme's effects on landscape character during construction would be appropriate.
Effects on the perception of landscape character in LCA 38b Lowland Rolling Farmland – Longhorsley, 35a Broad Lowland Valley – Coquet Valley and 17 Coquet Valley	Operation (Winter Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / Handover Environmental Management Plan (HEMP)	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The assessment of landscape and visual effects for Part A as set out in Chapter 7: Landscape and Visual Part A of the ES [APP-044] has identified that a single landscape character area would be subject to a significan during operation in year 1. This would be in advance of the establishment of the mitigation planting as indicated on Figure 7.8 Landscape Mitigation Masterplan [APP-095]. Potential additional mitigation measures comprising for example, extensive lengths of hoardings or temporary screen fences would be inappropriate within the scale and nature of the landscape, these being absent within the landscape, and their presence potentially leading to an increased adverse impact and significance of effect. To this end, the Applicant does not consider that additional measures to mitigate the Scheme's effects on landscape character during construction would be appropriate.
Local landscape area of the River Coquet bridge	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of landscape and visual effects for Part A as set out in Chapter 7: Landscape and Visual Part A of the ES [APP-044] has identified that for this landscape area associated with the River Coquet, the construction effects would be significant (large adverse) during construction. The effects arising as a result of the vegetation clearance, the presence of temporary construction works, plant, machinery and traffic movements combining to give rise to a large adverse (significant) effect. Potential additional mitigation measures comprising for example, extensive lengths of hoardings or temporary screen fences would be inappropriate within the scale and nature of the landscape, these being absent within the landscape, and their presence potentially leading to an increased



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
						adverse impact and significance of effect. To this end, the Applicant does not consider that additional measures to mitigate the Scheme's effects on landscape character during construction would be appropriate.
Local landscape area of the River Coquet bridge	Operation (Winter Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / Handover Environmental Management Plan (HEMP)	Large Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The assessment of landscape and visual effects for Part A as set out in Chapter 7: Landscape and Visual Part A of the ES [APP-044] has identified that a single landscape character area would be subject to a significant during operation in year 1. This would be in advance of the establishment of the mitigation planting as indicated on Figure 7.8 Landscape Mitigation Masterplan [APP-095]. Potential additional mitigation measures comprising for example, extensive lengths of hoardings or temporary screen fences would be inappropriate within the scale and nature of the landscape, these being absent within the landscape, and their presence potentially leading to an increased adverse impact and significance of effect. To this end, the Applicant does not consider that additional measures to mitigate the Scheme's effects on landscape character during construction would be appropriate.
Residential receptors subject to adverse visual effects at:  - VP 1 - View looking north, along West View  - VP 5 - View looking south - west from Public Right of Way (PRoW) (407/018)  Beacon Hill  - VP 10 - View looking southwest from PRoW (423/002) at The Farmhouse  - VP 36 - View looking east from PRoW (423/001) at Fenrother	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of visual effects has established that views experienced from publicly accessible viewpoints would be subject to a significant effect during construction. These typically arising where views would be experienced at close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.  Significant visual effects during construction could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate.



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						and potentially increase the magnitude of impact and significance of effect.
Residential receptors subject to adverse visual effects at:  - VP-27 - View looking northeast from Howdens Glebe cottages, off West Moor Road	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of visual effects has established that views experienced from publicly accessible viewpoints would be subject to a significant effect during construction. These typically arising where views would be experienced at close quarters or where existing open and expansive elevate views of open countryside would be impacted by the construction of the Scheme.  Significant visual effects during construction could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths a solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effects
PRoW users subject to adverse visual effects at:  - VP 3 - View looking northwest towards the start of Coronation Avenue from PRoW (407/010)  - VP 5 - View looking southwest from PRoW (407/018) Beacon Hill  - VP-8 - View looking northwest from PRoW (423/001) at the northern extent of Coronation Avenue  - VP-9 - View looking west from south bound bus stop located along existing A1  - VP-10 - View looking southwest from PRoW (423/002) at The Farmhouse	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of visual effects has established that views experienced from publicly accessible viewpoints would be subject to a significant effect during construction. These typically arising where views would be experienced at close quarters or where existing open and expansive elevate views of open countryside would be impacted by the construction of the Scheme.  Significant visual effects during construction could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effects



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
<ul> <li>VP-18 - View looking northwest from PRoW (422/020)</li> <li>VP-19 - View looking north from PRoW (422/020)</li> <li>VP-20 - View looking south from PRoW (422/020)</li> <li>VP-23 - View looking northeast from PRoW (115/016)</li> <li>VP-36 - View looking east from PRoW (423/001) at Fenrother</li> </ul>						
PRoW users subject to adverse visual effects at:  - VP-4 - View looking west from Hebron Road within the vicinity of the Church of St Cuthbert  - VP-6 - View looking northwest from PRoW (407/018) at Beacon Hill  - VP-29 - View looking northeast from PRoW (422/012)  - VP-32 - View looking southeast from PRoW (423/013)  - VP-33 - view looking southwest from PRoW (423/006)  - VP-37 - view looking north from PRoW (423/001)	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of visual effects has established that views experienced from publicly accessible viewpoints would be subject to a significant effect during construction. These typically arising where views would be experienced at close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.  Significant visual effects during construction could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.
Users of Long Distance Path:  - VP-24 - View looking southeast from St Oswald's way	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	СЕМР	Large Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of visual effects has established that views experienced from publicly accessible viewpoints would be subject to a significant effect during construction. These typically arising where views would be experienced at close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.  Significant visual effects during construction could be mitigated through additional temporary measures such as hoardings or



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures  screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.
Road users subject to adverse visual effects at:  - VP 4 - View looking west from Hebron Road within the vicinity of the Church of St Cuthbert  - VP 28 - View looking east from PRoW (422/011) adjacent to Burgham Park Golf and Leisure Club  - VP 31 - View looking east from Causey Park Hag/Causey Park Road	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of visual effects has established that views experienced from publicly accessible viewpoints would be subject to a significant effect during construction. These typically arising where views would be experienced at close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.  Significant visual effects during construction could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.
Road users subject to adverse visual effects at:  - VP 27 - View looking northeast from Howdens Glebe cottages, off West Moor Road	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of visual effects has established that views experienced from publicly accessible viewpoints would be subject to a significant effect during construction. These typically arising where views would be experienced at close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.  Significant visual effects during construction could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Residential receptors subject to adverse visual effects at:  - VP 27 - View looking northeast from Howdens Glebe cottages, off West Moor Road	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The assessment of visual effects has established that from publicly available locations significant effects during operation would be experienced. These typically arising where the views experienced would be at close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.  In the first year of operation, the mitigation planting will be immature, and as such will not provide the required level of screening. Significant visual effects during operation could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.
Users of PRoW subject to adverse visual effects at:  - VP-4 - View looking west from Hebron Road within the vicinity of the Church of St Cuthbert  - VP-5 - View looking south - west from PRoW (407/018) Beacon Hill  - VP-6 - View looking north-west from PRoW (407/018) at Beacon Hill  - VP-8 - View looking north-west from PRoW (423/001) at the northern extent of Coronation Avenue  - VP-9 - View looking west from south bound bus stop located along existing A1	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The users of a number of PRoW with views from publicly accessible locations within the study area identified as viewpoints, would be subject to significant effects during the operation of the Scheme. Similarly, to the mitigation of the significant effects on the occupants of residential receptors, additional measures such as hoardings and screen fences would be inappropriate in the open countryside and would need to be so extensive that they would in themselves give rise to additional impacts  Mitigation measures as set out in Figure 7.8:  Landscape Mitigation Masterplan Part A [APP-095] will achieve a good degree of integration and screening, however at year 1 the immature mitigation planting would not provide any effective screening. An alternative planting scheme would likely still require the extensive use of smaller nursery stock that requires



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
<ul> <li>VP-29 - View looking northeast from PRoW (422/012)</li> <li>VP-33 - view looking southwest from PRoW (423/006)</li> <li>VP-36 - View looking east from PRoW (423/001) at Fenrother</li> </ul>						several years to establish and achieve its environmental function of screening.
Users of PRoW subject to adverse visual effects at:  - VP-32 - View looking southeast from PRoW (423/013)  - VP-37 - view looking north from PRoW (423/001)	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Large Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The users of a number of PRoW with views from publicly accessible locations within the study area identified as viewpoints, would be subject to significant effects during the operation of the Scheme. Similarly, to the mitigation of the significant effects on the occupants of residential receptors, additional measures such as hoardings and screen fences would be inappropriate in the open countryside and would need to be so extensive that they would in themselves give rise to additional impacts  Mitigation measures as set out in Figure 7.8:  Landscape Mitigation Masterplan Part A [APP-095] will achieve a good degree of integration and screening, however at year 1 the immature mitigation planting would not provide any effective screening. An alternative planting scheme would likely still require the extensive use of smaller nursery stock that requires several years to establish and achieve its environmental function of screening.
Users of Long Distance Path:  - VP-24 - View looking southeast from St Oswald's way	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The users of a number of PRoW with views from publicly accessible locations within the study area identified as viewpoints, would be subject to significant effects during the operation of the Scheme. Similarly, to the mitigation of the significant effects on the occupants of residential receptors, additional measures such as hoardings and screen fences would be inappropriate in the open countryside and would need to be so extensive that they would in themselves give rise to additional impacts



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effect and no further mitigation measures
						Mitigation measures as set out in Figure 7.8: Landscape Mitigation Masterplan Part A [API 095] will achieve a good degree of integration and screening, however at year 1 the immature mitigation planting would not provid any effective screening. An alternative planting scheme would likely still require the extensive use of smaller nursery stock that requires several years to establish and achieve its environmental function of screening.
Road users subject to adverse visual effects at:  - VP-4 - View looking west from Hebron Road within the vicinity of the Church of St Cuthbert  - VP-27 - View looking northeast from Howdens Glebe cottages, off West Moor Road  - VP-28 - View looking east from PRoW (422/011) adjacent to Burgham Park Golf and Leisure Club  - VP-31 - View looking east from Causey Park Hag/Causey Park Road	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The users of a number of local roads with views from publicly accessible locations within the study area identified as viewpoints, would be subject to significant effects during the operation of the Scheme. Similarly, to the mitigation of the significant effects on the occupants of residential receptors, additional measures such as hoardings and screen fences would be inappropriate in the open countryside and would need to be so extensithat they would in themselves give rise to additional impacts  Mitigation measures as set out in Figure 7.8: Landscape Mitigation Masterplan Part A [API 095] will have achieve a good degree of integration and screening, however at year 1 the immature mitigation planting would not provide any effective screening. An alternative planting scheme would likely still require the extensive use of smaller nursery stock that requires several years to establish and achied its environmental function of screening.
Residential receptors subject to adverse visual effects at:  - VP-27 - View looking northeast from Howdens Glebe cottages, off West Moor Road	Operation (Year 15)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a	Viewpoint 27 is located west of the Scheme of West Moor Road and is representative of a number of residential receptors located along West Moor Road (R35 – R39 – refer to Figure 7.6 Visual Effects Drawings Residential Properties Part A [APP-093] and Appendix 7. Residential Visual Effects Schedule - Part A [APP-281]; and users of West Moor Road (refer to Appendix 7.2 Viewpoints Visual Effects Schedule Part A [APP-217]. The



Description of Effect	Construction / Operation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
				requirement in the DCO.	assessment of visual effects has established that the occupants of the associated residential receptors (R35 – R37 – as above) and users of West Moor Road would be subject to a significant effect during operation in year 15. These typically arising where the occupants of the receptors would experience views of changes arising as a result of the Scheme, at very close quarters.
					As the mitigation planting matures, and by the Design Year 15, for a relatively small number of properties (R35 – R37 and users of West Moor Road), the occupants and users would remain subject to a moderate adverse effect (significant). The Applicant considers that should additional mitigation measures be employed to reduce the visual impact of the Scheme they would remain subject to a significant effect. The effects typically remaining due to the loss of an existing open aspect or wide-ranging views should dense belts of planting or screen fences be employed to screen views of the Scheme.
					Significant visual effects during operation could be mitigated through additional measures such as screen fences. However, given the rural context, the introduction of extensive lengths o solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.
					Should more extensive mitigation measures in the form of substantial and additional roadside planting be included; this would limit some of the remaining views of the Scheme and of associated traffic movements. However, this would ultimately establish as a linear wooded corridor, and this would be at odds with the less heavily wooded wider landscape. To this end, the Applicant does not consider that additional measures to mitigate the Scheme's visual effects would be appropriate.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Users of PRoW subject to adverse visual effects at:  - VP-8 - View looking northwest from PRoW (423/001) at the northern extent of Coronation Avenue - VP-32 - View looking southeast from PRoW (423/013) - VP-33 - view looking southwest from PRoW (423/006) - VP-37 - view looking north from PRoW (423/001)	Operation (Year 15)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The assessment of visual effects, as set out in Appendix 7.2 Viewpoints Visual Effects Schedule Part A [APP-271] has established that the users of PRoW associated with these viewpoints would be subject to a significant effect during operation in year 15. These arising where the users of the PRoW would experience views at very close quarters (in the case of Viewpoint 32 and 37) or extensive views of the Scheme in broader views of the countryside (in the case of Viewpoints 8 and 33).  As the mitigation planting matures, and by the Design Year 15, this relatively small number of viewpoints, and the users of the associated PRoW would remain subject to a moderate adverse effect (significant) and that these would remain subject to a significant effect should additional mitigation measures be employed to reduce the visual impact of the Scheme. The effects typically remaining due to the loss of an existing open aspect or wideranging views should dense belts of planting or screen fences be employed to screen views of the Scheme.  Significant visual effects during operation could be mitigated through additional measures such as screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect. Should more extensive mitigation measures in the form of substantial and additional roadside planting be included; this would limit some of the remaining views of the Scheme and of associated traffic movements. However, this would ultimately establish as a linear wooded corridor, and this would be at odds with the less heavily wooded wider landscape. To this end, the Applicant does not consider that additional measures to mitigate the Scheme's visual effects would be appropriate.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Road users subject to adverse visual effects at:  - VP-27 - View looking northeast from Howdens Glebe cottages, off West Moor Road  Operation (Year 15)	· •	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The assessment of visual effects has established that road users associated with this viewpoint would be subject to a significant effect during operation in year 15. These typically arising where the road users would experience views at very close quarters or extensive views of the Scheme in broader views of the countryside.  As the mitigation planting matures, and by the Design Year 15, road users associated with this viewpoint would remain subject to a moderate adverse effect (significant). The Applicant considers that this viewpoint would remain subject to a significant effect should additional mitigation measures be employed to reduce the visual impact of the Scheme. The effects typically remaining due to the loss of an existing open aspect or wide-ranging views should dense belts of planting or screen fences be employed to screen views of the Scheme.
					Significant visual effects during operation could be mitigated through additional measures such as screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.	
						Should more extensive mitigation measures in the form of substantial and additional roadside planting be included; this would limit some of the remaining views of the Scheme and of associated traffic movements. However, this would ultimately establish as a linear wooded corridor, and this would be at odds with the less heavily wooded wider landscape. To this end, the Applicant does not consider that additional measures to mitigate the Scheme's visual effects would be appropriate.
Residential receptors subject to adverse visual effects at:	Construction	Manage construction activities: avoid unnecessary loss of	СЕМР	Moderate Adverse D / T / ST	Main contractor to identify and monitor protection measures	The assessment of visual effects has established that the occupants of a number of residential receptors would be subject to a



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
<ul> <li>Longfield Cottage (R9)</li> <li>Thirston New House (R34)</li> <li>Causey Park Lodge (North) (R48)</li> <li>Causey Park Hag (2 properties) (R50)</li> <li>New Build Off Causey Park (R56)</li> <li>Four Gables (R57)</li> <li>The Oak Inn (R61)</li> <li>New Houses Farm (R65)</li> <li>Portland House (R71)</li> <li>Welbeck House (2 properties) (R72)</li> <li>The Old School (1 properties) (R73)</li> <li>Stonebrook Cottage (4 properties) (R78)</li> <li>East Fenrother (3 properties) (R79)</li> <li>High Highlaws Cottage (R94)</li> <li>High Highlaws (R95)</li> </ul>		vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.			for retained vegetation for the duration of the construction period.	significant effect during construction. These typically arising where the occupants of the receptors would experience views at very close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.  Significant visual effects during construction could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths o solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect. Mitigation planting would not be sufficiently established during the construction period to provide any substantive mitigation.
Residential receptors subject to adverse visual effects at:  - The Cottage (R35) - West Moor House (R36) - West Moorhouse (4 properties) (R37) - Joiners Cottage (R58) - The Bungalow (R59) - Bridge House (R60) - Tindale Hill (R68) - Earsdon Moor Farm (R70) - Strafford House (R93) - Capri Lodge (R96) - Warreners Barns (2 properties) (R97) - Northgate Farm (R98) - Warreners Cottages (2 properties (R100)	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of visual effects has established that the occupants of a number of residential receptors would be subject to a significant effect during construction. These typically arising where the occupants of the receptors would experience views at very close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.  Significant visual effects during construction could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect. Mitigation planting would not be sufficiently



<ul> <li>Description of Effect</li> <li>Warreners House (R101)</li> <li>Warreners House (2)</li> <li>(R102)</li> </ul>	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures  established during the construction period to provide any substantive mitigation.
Residential receptors subject to adverse visual effects at:  - Thirston New House (R34) - Causey Park Lodge (North) (R48) - Causey Park Hag (2 properties) (R50) - New Build Off Causey Park (R56) - Four Gables (R57) - Portland House (R71) - Welbeck House (2 properties) (R72) - Stonebrook Cottage (4 properties (R78) - East Fenrother (3 properties) (R79) - Strafford House (R93) - High Highlaws Cottage (R94)	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The assessment of visual effects has established that the occupants of a number of residential receptors would be subject to a significant effect during operation. These typically arising where the occupants of the receptors would experience views at very close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.  In the first year of operation, the mitigation planting will be immature, and as such will not provide the required level of screening. Significant visual effects during operation could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.
Residential receptors subject to adverse visual effects at:  - The Cottage (R35) - West Moor House (R36) - West Moorhouse (4 properties) (R37) - Joiners Cottage (R58) - The Bungalow (R59) - Bridge House (R60) - Tindale Hill (R68) - Earsdon Moor Farm (R70)	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Large Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The assessment of visual effects has established that the occupants of a number of residential receptors would be subject to a significant effect during operation. These typically arising where the occupants of the receptors would experience views at very close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.  In the first year of operation, the mitigation planting will be immature, and as such will not provide the required level of screening. Significant visual effects during operation could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
						introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.
Residential receptors subject to adverse visual effects at:  - The Cottage (R35) - West Moor House (R36) - West Moor House (4 properties (R37) - Joiners Cottage (R58) - The Bungalow (R59) - Tindale Hill (R68) - Earsdon Moor Farm (R70) - Portland House (R71) - Welbeck House (2 properties (R72) - Strafford House (R93)	Operation (Year 15)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The assessment of visual effects has established that the occupants of a number or residential receptors would be subject to a significant effect during operation. These typically arising where the occupants of the receptors would experience views at very close quarters or where existing open and expansive elevated views of open countrysid would be impacted by the construction of the Scheme.  As the mitigation planting matures, and by the Design Year 15, the significant effects, experienced in Operation Year 1 for some of the receptors would no longer be significant. However, for a relatively small number of properties, the occupants would remain subject to a moderate adverse effect (significant). Of these, the Applicant consider that the majority would remain subject to a significant effect should additional mitigation measures be employed to reduce the visual impact of the Scheme. The effects typically remaining due to the loss of an existing open aspect or wide-ranging views should dense belts of planting or screen fences be employed to screen views of the Scheme.  Significant visual effects during operation coube mitigated through additional temporary measures such as hoardings or screen fence However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.  Should more extensive mitigation measures the form of substantial and additional roadsid planting be included; this would limit some of the remaining views of the Scheme and of associated traffic movements. However, this



<b>Description of Effect</b>	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
						would ultimately establish as a linear wooded corridor, and this would be at odds with the wider less heavily wooded landscape features of the landscape. To this end, the Applicant does not consider that additional measures to mitigate the Scheme's visual effects would be appropriate.
Visual effects on Public Rights of Way (PRoW):  - 407/010 Footpath / Bridleway	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D / T / ST	N/A	The users of a number of PRoW within the study area would be subject to significant effects during construction of the Scheme. Similarly, to the mitigation of the significant effects on the occupants of residential receptors, additional measures such as hoardings and screen fences would be inappropriate in the open countryside and would need to be so extensive that they would in themselves give rise to additional impacts.
Visual effects on PRoW:  - 423/001 Footpath - 423/002 Footpath - 423/011 Footpath - 422/020 Footpath - 115/016 Footpath - 407/018 Footpath - 423/006 Footpath - 423/013 Footpath - St Oswald's Way – Regionally Promoted Route	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D/T/ST	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The users of a number of PRoW within the study area would be subject to significant effects during construction of the Scheme. Similarly, to the mitigation of the significant effects on the occupants of residential receptors, additional measures such as hoardings and screen fences would be inappropriate in the open countryside and would need to be so extensive that they would in themselves give rise to additional impacts.
Visual effects on PRoW:  - St Oswald's Way – Regionally Promoted Route	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The users of this specific right of way within the study area would be subject to significant effects during the operation of the Scheme. Similarly, to the mitigation of the significant effects on the occupants of residential receptors, additional measures such as hoardings and screen fences would be inappropriate in the open countryside and would need to be so extensive that they would in themselves give rise to additional impacts



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
						Mitigation measures as set out in Figure 7.8: Landscape Mitigation Masterplan Part A [APP-095] would achieve a good degree of integration and screening, however at year 1 the immature mitigation planting would not provide any effective screening. An alternative planting scheme would likely still require the extensive use of smaller nursery stock that requires several years to establish and achieve its environmental function of screening.
Visual effects on PRoW:  - 423/001 Footpath  - 423/003 Footpath  - 423/006 Footpath  - 407/018 Footpath	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Large Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The users of a number of PRoW within the study area would be subject to significant effects during the operation of the Scheme. Similarly, to the mitigation of the significant effects on the occupants of residential receptors, additional measures such as hoardings and screen fences would be inappropriate in the open countryside and would need to be so extensive that they would in themselves give rise to additional impacts  Mitigation measures as set out in Figure 7.8: Landscape Mitigation Masterplan Part A [APP-095] would achieve a good degree of integration and screening, however at year 1 the immature mitigation planting would not provide any effective screening. An alternative planting scheme would likely still require the extensive use of smaller nursery stock that requires several years to establish and achieve its environmental function of screening.
Visual effects on PRoW:  - 423/001 Footpath  - 423/006 Footpath  - 423/013 Footpath	Operation (Year 15)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The assessment of visual effects has established that the users of these PRoW would be subject to a significant effect during operation in year 15. These typically arising where the users of the PRoW would experience views at very close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.  As the mitigation planting matures, and by the Design Year 15, the significant effects, experienced in Operation Year 1 for some of



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
						the receptors would no longer be significant. However, for a relatively small number of PRoW, the users would remain subject to a moderate adverse effect (significant). Of these the Applicant considers that the majority would remain subject to a significant effect should additional mitigation measures be employed to reduce the visual impact of the Scheme. The effects typically remaining due to the loss of ar existing open aspect or wide-ranging views should dense belts of planting or screen fences be employed to screen views of the Scheme.
						Significant visual effects during operation could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.
						Should more extensive mitigation measures in the form of substantial and additional roadside planting be included; this would limit some of the remaining views of the Scheme and of associated traffic movements. However, this would ultimately establish as a linear wooded corridor, and this would be at odds with the wider less heavily wooded landscape features of the landscape. To this end, the Applicant does not consider that additional measures to mitigate the Scheme's visual effects would be appropriate.
Commercial/Community facilities subject to adverse visual effects at:  - Oak Inn (Public House) - Tritlington Church of England First School - Jackson J K and Sons garage	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds	CEMP	Moderate Adverse D / T / ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of visual effects has established that those individuals employed at or visiting a small number of commercial receptors would be subject to a significant effect during construction. These typically arising where the individuals employed at or visiting the receptors would experience views at very close quarters or where existing open and expansive elevated views of open



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		screen views and potential light pollution.				countryside would be impacted by the construction of the Scheme.  Significant visual effects during construction could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect. Mitigation planting would not be sufficiently established during the construction period to provide any substantive mitigation.
Commercial/Community facilities subject to adverse visual effects at:  - Oak Inn (Public House) - Jackson J K and Sons garage	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by The Applicant implemented as part of the Scheme through the HEMP, via the CEMP and as a requirement in the DCO.	The assessment of visual effects has established that those individuals employed at or visiting a small number of commercial receptors would be subject to a significant effect during operation (year 1). These typically arising where the individuals employed at or visiting the receptors would experience views at very close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.
						In the first year of operation, the mitigation planting will be immature, and as such will not provide the required level of screening. An alternative planting scheme would likely still require the extensive use of smaller nursery stock that requires several years to establish and achieve its environmental function of screening. Significant visual effects during operation could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.



<b>Description of Effect</b>	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Chapter 8: Cultural Heritage						
Permanent removal or destruction of additional remains associated with findspot of Mesolithic flint	Construction	Preservation through record.	CEMP	Moderate adverse D / P / LT	N/A	Below-ground Heritage Assets  Where direct adverse impacts on below-ground cannot be mitigated through avoidance (i.e. preservation in-situ), the only other method for mitigation available is preservation by record (excavation, recording, reporting and archiving). While it is acknowledged that this approach would reduce the magnitude of impacts, and therefore the significance effects, the heritage asset would still be subject to direct and permanent adverse impacts as the physical remains of the asset is lost.  The use of preservation by record where heritage assets are to be lost is in-keeping with National Policy Statement for National Networks (NPS NN) paragraph 5.140 and National Planning Policy Framework (NPPF) paragraph 199.  While the magnitude of impact is the same for each heritage assets effected, the value of each asset would vary. The residual effects on heritage assets of negligible and low value would be slight adverse (not-significant), while those of medium, high and very high value it would be moderate, large or very large (significant). The assessment predicts that the likelihood is that below ground remains would be of negligible to medium value, and a low likelihood for below ground remains of high or very high value.
Permanent removal or destruction of buried remains associated with the Chapel or Hermitage at Helm (HER 11347)	Construction	Preservation through record.	СЕМР	Moderate adverse D/P/LT	N/A	



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Permanent removal or destruction of Cropmark of rectilinear enclosure (HER 11367)	Construction	Preservation through record.	СЕМР	Unknown at present but the effect could be significant D / P / LT	N/A	
Permanent removal or destruction of currently unknown below-ground archaeological remains of medium value from the Prehistoric, Roman, Early Medieval and Late Medieval date period	Construction	Preservation through record.	CEMP	Moderate adverse D/P/LT	N/A	
Permanent removal or destruction of currently unknown below-ground heritage assets of high or very high value ranging from the Prehistoric to the Post-Medieval period	Construction	Preservation through record.	СЕМР	Large to very large adverse D/P/LT	N/A	
Temporary impacts upon the non-designated park and designated assets within Felton Park	Construction	Best practice measures are set out in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) would manage working in proximity to designated assets.	N/A	Moderate Adverse D / T / ST	N/A	The residual significant effects on setting in the construction phase are temporary and would be removed once construction is completed.  Significant visual effects during construction could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect. Mitigation planting would not be sufficiently established during the construction period to provide any substantive mitigation.
Temporary impacts upon the setting of Grade II Listed Longfield Cottage (NHL 1041875) and Boundary Stones (NHL 1041876)	Construction	Best practice measures are set out in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)	СЕМР	Moderate Adverse D / T / ST	N/A	The residual significant effects on setting in the construction phase are temporary and would be removed once construction is completed.  Significant visual effects during construction could be mitigated through additional



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		would manage working in proximity to designated assets				temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths a solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect Mitigation planting would not be sufficiently established during the construction period to provide any substantive mitigation.
Chapter 9: Biodiversity			•			
Loss of 0.27 ha of ancient woodland associated with the River Coquet and Coquet Valley Woodlands Site of Special Scientific Interest (encompassing Dukes Bank Wood ancient woodland)	Construction	Woodland planting at a 12:1 ratio and associated measures detailed in the Ancient Woodland Strategy (Appendix 9.21, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7)). Total of 8.16 ha when combined with below.	CEMP / Ancient Woodland Strategy	Very Large Adverse D/P/LT	Preliminary monitoring and management of the Woodland Creation Area over a 50-year period are presented in the Ancient Woodland Strategy (Appendix 9.21, Volume 7 of this ES). The Strategy would be finalised at detailed design.	The Scheme would result in the loss of habitat associated with a Nationally important ecological receptor. Avoidance, mitigation and compensation have been proposed. However, it is not possible to achieve a non-significant residual impact due to the loss of an irreplaceable habitat.
Loss of 0.41 ha of woodland within the Coquet River Felton Park Local Wildlife Site, which has been treated as ancient woodland	Construction	Woodland planting at a ratio of 12:1 and associated measures detailed in the Ancient Woodland Strategy (Appendix 9.21, Volume 7 of this ES (Application Document Reference: TR010041/APP/6.7)). Total of 8.16 ha when combined with above.	CEMP / Ancient Woodland Strategy	Moderate Adverse D/P/LT	Preliminary monitoring and management of the Woodland Creation Area over a 50-year period are presented in the Ancient Woodland Strategy (Appendix 9.21, Volume 7 of this ES). The Strategy would be finalised at detailed design.	Avoidance, mitigation and compensation have been proposed.  Whilst the woodland of the Local Wildlife Site (LWS) is not designated ancient woodland, it does present ancient woodland character. As such, professional opinion is that it is not possible to achieve a non-significant residual impact.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Chapter 11: Geology and Soils						
Agricultural land take of approximately 9 ha of Best and Most Versatile land	Construction	N/A	N/A	Moderate Adverse D/P/LT	N/A	The permanent loss of BMV agricultural land is generally associated with the widening of the existing carriageway, therefore the available options for reduction in loss of BMV land is limited via design. The Scheme has been designed to minimise the loss of land where possible, The permanent loss of BMV land therefore remains a moderate adverse effect.  Mitigation measures to be put in place during construction include the sustainable management of soils stripped from areas of permanent land take and re-used where possible.
Agricultural land take of approximately 73 ha of Subgrade 3b	Construction	N/A	N/A	Moderate Adverse D/P/LT	N/A	Mitigation measures to reduce the significant effects associated with the permanent loss of moderate quality agricultural land are limited via the requirements of the Scheme design. The permanent loss of moderate quality agricultural land therefore remains a significant adverse effect.  Mitigation measures to be put in place during construction include the sustainable management of soils stripped from areas of permanent land take and re-used where possible.
The overall assessment of agricultural land loss, including 100 ha of moderate to poor agricultural quality (Subgrade 3b (73 ha) and Grade 4 (27 ha)) and approximately 9 ha of best and most versatile (BMV) land (Grade 2 (<1 ha) and Subgrade 3a (8 ha)). For the purposes of the assessment the areas not	Construction	N/A	N/A	Slight to Moderate Adverse D/P/LT	N/A	Given the nature of the Scheme, predominantly comprising the widening of the existing highway, mitigation measures to reduce the significant effects associated with the permanent loss of agricultural land are limited via the requirements of the Scheme design. The permanent loss of agricultural land is a necessary requirement for the construction of Part A, it therefore remains a significant adverse effect.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
surveyed (<0.1 ha) have been included as BMV.						Mitigation measures to be put in place during construction include the sustainable management of soils stripped from areas of permanent land take and re-used where possible as part of the Scheme.
Chapter 12: Population and Huma	an Health					
Views from the road during construction	Construction	N/A	N/A	Moderate Adverse D/T/ST	N/A	Views from the road are likely to be temporarily significantly adversely affected due to the introduction of road works and the removal of vegetation screening and would continue into operation until mitigation planting reaches maturity. Temporary measures during construction works to limit the impacts of construction works are outlined within the Outline CEMP, but these are not totally avoidable even with the proposed mitigation due to the nature and proximity of plant and construction activities to receptors. However, receptors will be transient vehicle travelers and therefore would experience a reduction in views from the road for a short period only.
PRoWs closed or diverted during the construction period:  - 407/013 - 407/010 - 407/018 - 423/001 - 423/006 - 423/007 - 423/013 - 422/002 - 115/009 - 115/013 - 115/016 - 422/011	Construction	Temporary diversions to ensure that some routes remain open and provide safe access for Walking Cyclists and Horse-riders (WCH).  Consultation regarding the diversions with affected individuals, groups, and Northumberland County Council (NCC).  A PRoW Management Plan would be produced by the main contractor	Construction Traffic Management Plan (CTMP) (Application Document Reference: TR010041/APP/7.4)	Moderate Adverse D / T-P / ST-LT	N/A	Temporary and permanent diversions of Public Rights of Way (PRoW) have been proposed where practicable and possible, following consultation with NCC and local landowners, but due to the nature of the Scheme (whereby single carriageway to be widened to dual carriageway) PRoW which previously stretched either side of the carriageway (with no formal crossing of the A1) have been stopped up for safety and accessibility reasons, therefore increasing journey lengths for WCH to incorporate safe crossing facilities. Additional footbridges to increase connectivity for WCH would increase the land take, and were not deemed to be proportionate to the low level of users of the PRoW network, as



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
						demonstrated by the survey data outlined in Appendix TT.1.
Users of PRoW 423/001	Operation	Permanent diversions to ensure that some routes remain open and provide safe access for WCH.	CTMP	Moderate Adverse D/P/LT	N/A	Permanent diversions of Public Rights of Way (PRoW) have been proposed where practicable and possible, following consultation with NCC and local landowners, but due to the nature of the Scheme (whereby single carriageway to be widened to dual carriageway) PRoW which previously stretched either side of the carriageway (as is the case with 423/001) (with no formal crossing of the A1) have been stopped up for safety and accessibility reasons, therefore increasing journey lengths for WCH to incorporate safe crossing facilities. The proposed diversion for users is north over Fenrother Junction. An additional footbridge closer to the PRoW would increase the land take, and would not be proportionate to the low level of users of the PRoW network, as demonstrated by the survey data outlined in Appendix TT.1.
Demolition of North Gate House	Construction	No mitigation available for loss of property. However, compensation has been agreed as part of the Scheme with the occupiers of North Gate House.	N/A	Moderate Adverse D/P/LT	N/A	The Scheme has been designed to limit land take where possible. The demolition of North Gate House required for Part A Is not possible to avoid under the Scheme design, and there is no possible mitigation that would reduce the significance of these effects. Landowners would however be compensated for loss of their property.
Recreational users of the River Coquet	Construction	Inform the public and community groups of the nature, timing and duration construction activities.	CEMP	Moderate Adverse D / T / ST	N/A	The significant adverse effect from the temporary reduction of amenity for users of the River Coquet and its surrounds is anticipated to be unavoidable due to the temporary introduction of construction works, even following the implementation of measures in



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		Directions at the appropriate places would be provided for alternative access points or routes.				the Outline CEMP [APP-346], However, this effect is a localised effect, and users are likely to be transient, so further measures have not been proposed.
Impacts on agricultural land holdings – Clarehugh	Construction	Engage in early consultation with landowners to maintain access and minimise the impact on farm and diversified rural businesses during construction.  Returning temporarily required land to the landowner upon completion including reinstatement of boundary features.  Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be temporarily and permanently acquired or severed to accommodate Part A.	CTMP  CEMP  Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 (Application Document Reference: TR010041/APP/6.5)).	Moderate Adverse D/T/ST	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO	Agricultural land take has been minimised where possible, but the current design has resulted in land take from Clarehugh, Hemelspeth Farm where the proportion of land take is the main factor of the level of significance. Landowners would be compensated for loss of their land, but this is not able to mitigate for the loss of land and reduce the significance of effect. There may be possible reductions in land take during the detailed design of the Scheme, but this is unlikely to result in quantities large enough to reduce the level of significance.  Mitigation measures to be implemented during construction are set out within the Outline CEMP [APP-346], which will be developed further into a full CEMP in discharging requirement 4 of the dDCO [APP-014].  Detailed design discussions (also considering accommodation works), will provide an opportunity for smaller measures to improve drainage, upgrade boundary fences, gates, tracks to be considered, and mitigation will be agreed on a case by case basis. However, these measures are unlikely to mitigate fully and reduce the significant effects identified within the assessment.
Impacts on agricultural land holdings – Hemelspeth Farm	Construction	Any temporarily required land would be reinstated to its original condition following the completion of construction.  Pursuant to the Compensation Code, compensation would be	СЕМР	Moderate Adverse D/T/ST	N/A	Agricultural land take has been minimised where possible, but the current design has resulted in land take from Hemelspeth Farm, where the proportion of land take is the main factor of the level of significance. Landowners would be compensated for loss of their land, but this is not able to mitigate for the loss of land and reduce the significance of effect. Mitigation measures to



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		agreed as part of Part A with the relevant parties whose land would be temporarily and permanently acquired or severed to accommodate Part A.				be implemented during construction are set out within the Outline CEMP [APP-346], which will be developed further into a full CEMP in discharging requirement 4 of the DCO [APP-014]. Detailed design discussions (also considering accommodation works), will provide an opportunity for smaller measures to improve drainage, upgrade boundary fences, gates, tracks to be considered, and mitigation would be agreed on a case by case basis. However, these measures are unlikely to mitigate fully and reduce the significant effects identified within the assessment.
Impacts on agricultural land holdings – Causey Park	Construction	Access provision or cattle handling facilities to land severed to the east of Part A.  Access provision during construction for farm and all additional enterprises and commercial lets.  Accommodation works have been included in the Landscape Mitigation Masterplan to reduce impact to New Houses farmstead.  Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be temporarily and permanently acquired or severed to accommodate Part A.	CTMP  Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Moderate Adverse D/T/ST	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO	Agricultural land take has been minimised where possible, but the current design has resulted in land take from Causey Park Farm where the proportion of land take is the main factor of the level of significance. Landowners would be compensated for loss of their land, but this is not able to mitigate for the loss of land and reduce the significance of effect. In the case of Causey Park, severance of the land holding is also a main contributing factor to the level of significance. Direct access for this private property from the A1 has not been factored into the design, in line with the objectives of the Scheme to improve safety (refer to paragraph 2.2.1 (c) of Chapter 2: The Scheme [APP-037]. The access to land within the Causey Park holding will be from Causey Park road and the access tracks on the west of the new A1, and from the existing A1 and side roads to the east of the Scheme (private accesses PA 6/1, PA 6/2, PA 6/3, PA 6/4, PA 6/5, PA 6/6, PA 6/7, PA 6/8, PA, 6/9, PA 5/2 and PA 5/3 as denoted on the Rights of Way and Access plan [APP-009]) will be retained and or included in the scheme design to provide access to Causey Park land). However, even with consideration of included accesses there still remains severance between operational land and temporary and permanent land take from the agricultural holding resulting in a significant effect which cannot be reduced through mitigation.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures  Mitigation measures to be implemented during
						construction are set out within the Outline CEMP [APP-346], which would be developed further into a full CEMP in discharging requirement 4 of the dDCO [APP-014]. Detailed design discussions (also considering accommodation works), will provide an opportunity for smaller measures to improve drainage, upgrade boundary fences, gates, tracks to be considered, and mitigation would be agreed on a case by case basis. However, these measures are unlikely to mitigate fully and reduce the significant effects identified within the assessment.
Impacts on agricultural land holdings – 'Farm C'	Construction	Any temporarily required land would be reinstated to its original condition following the completion of construction.  Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be temporarily and permanently acquired or severed to accommodate Part A.	CEMP	Moderate Adverse D/T/ST	N/A	Agricultural land take has been minimised where possible, but the current design has resulted in land take on land holding C where the proportion of land take is the main factor of the level of significance. Landowners would be compensated for loss of their land, but this is not able to mitigate for the loss of land and reduce the significance of effect.  Mitigation measures to be implemented during construction are set out within the Outline CEMP [APP-346], which would be developed further into a full CEMP in discharging requirement 4 of the DCO [APP-014]. Detailed design discussions (also considering accommodation works), will provide an opportunity for smaller measures to improve drainage, upgrade boundary fences, gates, tracks to be considered, and mitigation would be agreed on a case by case basis. However, these measures are unlikely to mitigate fully and reduce the significant effects identified within the assessment.
Impacts on agricultural land holdings – Clarehugh	Operation	Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan,	Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by the Applicant	Agricultural land take has been minimised where possible, but the current design has resulted in land take on Clarehugh where the proportion of land take is the main factor of the level of significance. Landowners would be compensated for loss of their land, but this is



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
	Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).  Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be permanently acquired or severed to accommodate Part A.	Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).		implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO	not able to mitigate for the loss of land and reduce the significance of effect.  Detailed design discussions (also considering accommodation works), will provide an opportunity for smaller measures to improve drainage, upgrade boundary fences, gates, tracks to be considered, and mitigation would be agreed on a case by case basis. However these measures are unlikely to mitigate fully and reduce the significant effects identified within the assessment.	
Impacts on agricultural land holdings – Hemelspeth Farm	Operation	Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be permanently acquired or severed to accommodate Part A.	CEMP	Moderate Adverse D/P/LT	N/A	Agricultural land take has been minimised where possible, but the current design has resulted in land take from Hemelspeth Farm, where the proportion of land take is the main factor of the level of significance. Landowners would be compensated for loss of their land, but this is not able to mitigate for the loss of land and reduce the significance of effect.  Detailed design discussions (also considering accommodation works), will provide an opportunity for smaller measures to improve drainage, upgrade boundary fences, gates, tracks to be considered, and mitigation would be agreed on a case by case basis. However, these measures are unlikely to mitigate fully and reduce the significant effects identified within the assessment.
Impacts on agricultural land holdings – Causey Park	Operation	Access provision or cattle handling facilities to land severed to the east of the Scheme.  Access provision once operational for farm and all additional enterprises and commercial lets.  Accommodation works have been included in	Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO	Agricultural land take has been minimised where possible, but the current design has resulted in land take on Causey Park Farm where the proportion of land take is the main factor of the level of significance. Landowners would be compensated for loss of their land, but this is not able to mitigate for the loss of land and reduce the significance of effect. In the case of Causey Park, severance of the land holding is also a main contributing factor to the level of significance. Direct access for this private property from the A1 has not been



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)) to reduce impact to New Houses farmstead. Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be permanently acquired or severed to accommodate Part A.	CEMP			included for safety reasons in line with the objectives of the Scheme to improve safety (refer to paragraph 2.2.1 (c) of Chapter 2: The Scheme [APP-037]. The access to land within the Causey Park holding would be from Causey Park road and the access tracks on the west of the new A1, and from the existing A1 and side roads to the east of the Scheme (private accesses PA 6/1, PA 6/2, PA 6/3, PA 6/4, PA 6/5, PA 6/6, PA 6/7, PA 6/8, PA, 6/9, PA 5/2 and PA 5/3 as denoted on the Rights of Way and Access plan [APP-009]) would be retained and or included in the Scheme design to provide access to Causey Park land. Additionally, the Causey Park Overbridge would provide east to west connectivity for vehicles accessing land parcels severed by the Scheme. However, even with consideration of included accesses and the overbridge there would still remain severance between operational land and temporary and permaner land take from the agricultural holding resulting in a significant effect which cannot be reduced through mitigation.  Detailed design discussions (also considering accommodation works), will provide an
					opportunity for smaller measures to improve drainage, upgrade boundary fences, gates, tracks to be considered, and mitigation will be agreed on a case by case basis. However, these measures are unlikely to mitigate fully and reduce the significant effects identified within the assessment.	
Impacts on agricultural land holdings – 'Farm C'	Operation	Pursuant to the Compensation Code, compensation would be agreed as part of Part A with the relevant parties whose land would be permanently acquired or severed to accommodate Part A.	СЕМР	Moderate Adverse D/P/LT	N/A	Agricultural land take has been minimised where possible, but the current design has resulted in land take from land holding C, where the proportion of land take is the main factor of the level of significance. Landowners would be compensated for loss of their land, but this is not able to mitigate for the loss of land and reduce the significance of effect.  Detailed design discussions (also considering accommodation works), will provide an



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
						opportunity for smaller measures to improve drainage, upgrade boundary fences, gates, tracks to be considered, and mitigation will be agreed on a case by case basis. However, these measures are unlikely to mitigate fully and reduce the significant effects identified within the assessment.
Updated DMRB Guidance			'			
Demolition of North Gate House	Construction	No mitigation available for loss of property.  Compensation has been agreed as part of the Scheme with the occupiers of North Gate House, however this has not been considered as part of this assessment.	N/A	Large Adverse  D / P / LT  (Overall conclusions of the assessment of significance would remain the same as when compared to former DMRB guidance)	N/A	The Scheme has been designed to limit land take where possible. The demolition of North Gate House required for Part A us not possible to avoid under the Scheme design, and there is no possible mitigation that would reduce the significance of these effects. Landowners would however be compensated for loss of their property.
Chapter 15: Combined Effects for	r Part A					
Combined effects upon residential receptors	Construction	Mitigation measures relating to potential effects on residents are set out in Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)	СЕМР	Moderate to Large Adverse  D-ID / T-P / ST-LT	Monitoring measures relating to potential effects on residents are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	As no further mitigation measures are feasible to reduce the residual significant effects anticipated as a result of Part A (refer to rows above), significant effects would remain for combined effects.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Combined effects upon areas of amenity surrounding Part A	Construction	Mitigation measures relating to potential effects on amenity areas are set out in Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)	CEMP	Moderate Adverse D / T- P / ST-LT	Monitoring measures relating to potential effects on amenity areas are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	
Combined effects upon road users	Construction	Mitigation measures relating to potential effects on road users are set out in Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)	СЕМР	Moderate to Large Adverse D / T / ST	Monitoring measures relating to potential effects on road users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	
Combined effects upon users of footpaths and PRoW	Construction	Mitigation measures relating to potential effects on users of footpaths and PRoW are set out in Technical Chapters 5	СЕМР	Moderate to Large Adverse D / T-P / ST-LT	Monitoring measures relating to potential effects on users of footpaths and PRoW are set out in the respective <b>Technical</b>	



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)			Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	
Combined effects upon statutory and non - statutory designated ecological sites/local biodiversity	Construction	Mitigation measures relating to potential effects on ecological sites are set out in Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)  Deliver mitigation strategy as per the Landscape Mitigation Masterplan (refer to Figure 7.8: Landscape Mitigation Masterplan, Volume 5 of this ES (Application Document Reference: TR010041/APP/6.5)).		Minor adverse to Moderate Beneficial D-ID / T-P / ST-LT	Monitoring measures relating to potential effects on ecological sites are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	
Combined effects upon agricultural land and associated rural enterprises	Construction	Mitigation measures relating to potential effects on agricultural land and associated rural enterprises are set	СЕМР	Slight to Moderate Adverse D / T-P / ST-LT	Monitoring measures relating to potential effects on agricultural land and associated rural enterprises are	



<b>Description of Effect</b>	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		out in Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)			set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	
Combined effects upon Tritlington Church of England Aided First School	Construction	Mitigation measures relating to potential effects on Tritlington Church of England Aided First School are set out in the Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)	CEMP	Moderate Adverse D/T/ST	Monitoring measures relating to potential effects on Tritlington Church of England Aided First School are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	
Combined effects upon residential receptors	Operation	Mitigation measures relating to potential effects on residents are set out in the Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2)	CEMP / Landscape Mitigation Plan / Landscape Management Plan / HEMP	Major Beneficial to Major Adverse D / P / LT	Monitoring measures relating to potential effects on residents are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document	



<b>Description of Effect</b>	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)			Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	
Combined effects upon users of footpaths and PRoW	Operation	Mitigation measures relating to potential effects on users of footpaths and PRoW are set out in Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3)	CEMP / Landscape Mitigation Plan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	Monitoring measures relating to potential effects on users of footpaths and PRoW are set out in the respective Technical Chapters 5 to 13 and 15, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	



Table 2 - Part B: Summary of Significant Effects (refer to Table 17-3 of Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3))

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Chapter 7: Landscap	e and Visual					
Landscape character subject to adverse effects (refer to Appendix 7.3: Landscape Effects Schedule, Volume 8 of this ES (Application Document Reference: TR010041/APP/6.8)):  - 8c Charlton Ridge Landscape Character Area (LCA) - 3c Rock LCA - 6 North East Farmed Coastal Plan LCA	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation and soil quality for further planting. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of landscape and visual effects for Part B as set out in Chapter 7: Landscape and Visual Part B of the ES [APP-045] has identified that for those character areas identified, the construction effects would be significant during construction. The effects arising as a result of the presence of temporary construction works, plant, machinery and traffic movements combining to give rise to a moderate adverse (significant) effect. Potential additional mitigation measures comprising for example, hoardings or temporary screen fences would be inappropriate within the scale and nature of the landscape, these being absent within the landscape, and their presence potentially leading to an increased adverse impact and significance of effect. To this end, the Applicant does not consider that additional measures to mitigate the Scheme's effects on landscape character during construction would be appropriate.
Residential receptors subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):  - People living in properties with north east facing views	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of visual effects has established that the occupants of a number of residential receptors would be subject to a significant effect during construction. These typically arising where the occupants of the receptors would experience views at very close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.  Significant visual effects during construction could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensiv lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
(Receptors 1 & 2)  People living in properties with western facing views (Receptor 9)  People living in properties with filtered western facing views (Receptors 11 & 14)  People living in properties with close proximity views (Receptor 12)  People living in properties with close proximity south western facing views (Receptors 15 & 16)  People living in properties with close proximity south western facing views (Receptors 15 & 16)  People living in properties with south eastern facing views (Receptor 17).						
Residential receptors subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange	CEMP	Large Adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The assessment of visual effects has established that the occupants of a number of residential receptors would be subject to a significant effect during construction. These typically arising where the occupants of the receptors would experience views at very close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Document Reference: TR010041/APP/6.6)):  - People living in properties with eastern facing views (Receptors 3, 4, 5 & 8) - People living in properties with close proximity eastern facing views (Receptors 6, 7 & 10) - People living in properties with close proximity western facing views (Receptors 6, 7 & 10)		compound so that temporary soil bunds screen views and potential light pollution.				Significant visual effects during construction could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect. Mitigation planting would not be sufficiently established during the construction period to provide any substantive mitigation.
Recreational receptors travelling along PRoW subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):  - People travelling along Public Right of Way	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The users of a number of PRoW within the study area would be subject to significant effects during construction of the Scheme. Similarly, to the mitigation of the significant effects on the occupants of residential receptors, additional measures such as hoardings and screen fences would be inappropriate in the open countryside and would need to be so extensive that they would in themselves give rise to additional impacts.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
(PRoW) 112/008 and PRoW 112/009 (Receptors 25 & 26)  People travelling along PRoW 110/013 (Receptor 33)  People travelling along PRoW 129/006 (Receptor 36)  People travelling along PRoW 129/006 (Receptor 36)  (Receptor 36)  Receptor 36)						
Recreational receptors travelling along PRoW subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):  - People travelling along PRoW 129/004 (Receptor 27) - People travelling along PRoW	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Large Adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The users of a number of PRoW within the study area would be subject to significant effects during construction of the Scheme. Similarly, to the mitigation of the significant effects on the occupants of residential receptors, additional measures such as hoardings and screen fences would be inappropriate in the open countryside and would need to be so extensive that they would in themselves give rise to additional impacts.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
129/005 (Receptor 28)  People travelling along PRoW 141/013 and PRoW 141/002 (Receptors 42 & 43)						
Road users subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):  - People travelling along main roads (Receptor 37)	Construction	Manage construction activities: avoid unnecessary loss of vegetation outside working area and protect retained vegetation. Arrange compound so that temporary soil bunds screen views and potential light pollution.	CEMP	Moderate Adverse D/T/ST	Main contractor to identify and monitor protection measures for retained vegetation for the duration of the construction period.	The users of local roads within the study area would be subject to significant effects both during construction of the Scheme. Similarly, to the mitigation of the significant effects on the users of PRoWs, additional measures such as hoardings and screen fences would be inappropriate in the open countryside and would need to be so extensive that they would in themselves give rise to additional impacts.
Residential receptors subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):  - People living in properties with north east facing views	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6).	Landscape Mitigation Plan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO.	The assessment of visual effects has established that the occupants of a number of residential receptors would be subject to a significant effect during operation. These typically arising where the occupants of the receptors would experience views at very close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme. In the first year of operation, the mitigation planting will be immature, and as such will not provide the required level of screening. An alternative planting scheme would likely still require the extensive use of smaller nursery stock that requires several years to establish and achieve its environmental function of screening. Significant visual effects during operation could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid



Description of Effect	Construction / Operation	roposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
(Receptors 1 & 2)  People living in properties with western facing views (Receptor 9)  People living in properties with filtered western facing views (Receptor 11 & 14)  People living in properties with close proximity views (Receptor 12)  People living in properties with close proximity western facing views (Receptor 13)  People living in properties with close proximity western facing views (Receptor 13)  People living in properties with close proximity south western facing views (Receptors 15 & 16)						screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.
Residential receptors subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES	(Year 1) st	reliver mitigation trategy as per the andscape Mitigation lan (Figure 7.10, folume 6 of this ES Application	Landscape Mitigation Plan / Landscape Management Plan / HEMP	Large Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part	The assessment of visual effects has established that the occupants of a number of residential receptors would be subject to a significant effect during operation. These typically arising where the occupants of the receptors would experience views at very close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
(Application Document Reference: TR010041/APP6.6)):  - People living in properties with eastern facing views (Receptors 3, 4, 5 & 8) - People living in properties with close proximity eastern facing views (Receptors 6, 7 & 10)		Document Reference: TR010041/APP/6.6)).			of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO.	In the first year of operation, the mitigation planting will be immature, and as such will not provide the required level of screening. An alternative planting scheme would likely still require the extensive us of smaller nursery stock that requires several years to establish and achieve its environmental function of screening. Significant visual effects during operation could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect.
Recreational receptors travelling along PRoW subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):  - People travelling along PRoW 112/008 and PRoW 112/009 (Receptors 25 & 26) - People travelling	Operation (Year 1)	Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)).	Landscape Mitigation Plan / Landscape Management Plan / HEMP	Moderate Adverse D/P/ST	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO.	The users of a number of PRoW within the study area would be subject to significant effects during the operation of the Scheme. Similarly, to the mitigation of the significant effects on the occupants of residential receptors, additional measures such as hoardings and screen fences would be inappropriate in the open countryside and would need to be so extensive that they would in themselves give ris to additional impacts  Mitigation measures as set out in Figure 7.10: Landscape Mitigation Masterplan Part B [APP-144] will achieve a good degree of integration and screening, however at year 1 the immature mitigation planting would not provide any effective screening. An alternative planting scheme would likely still require the extensive use of smalle nursery stock that requires several years to establish and achieve its environmental function of screening.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
along PRoW 129/004 (Receptor 27)  - People travelling along PRoW 129/005 (Receptor 28)						
Residential receptors subject to adverse visual effects (refer to Figure 7.2: Visual Receptors Plan, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)):  - People living in properties with eastern facing views (Receptors 3, 4, 5 & 8) - People living in properties with close proximity eastern facing views (Receptors 6, 7 & 10)	Operation (Year 15)	Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)).	Landscape Mitigation Plan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO.	The assessment of visual effects has established that the occupants of a number of residential receptors would be subject to a significant effect during operation. These typically arising where the occupants of the receptors would experience views at very close quarters or where existing open and expansive elevated views of open countryside would be impacted by the construction of the Scheme. As the mitigation planting matures, and by the Design Year 15, the significant effects, experienced in Operation Year 1 for some of the receptors would no longer be significant. However, for a relatively small number of properties, the occupants would remain subject to a moderate adverse effect (significant). Of these, the Applicant considers that the majority would remain subject to a significant effect should additional mitigation measures be employed to reduce the visual impact of the Scheme. The effects typically remaining due to the loss of an existing open aspect or wide-ranging views should dense belts of planting or screen fences be employed to screen views of the Scheme.  Significant visual effects during operation could be mitigated through additional temporary measures such as hoardings or screen fences. However, given the rural context, the introduction of extensive lengths of solid screen fencing would be inappropriate and potentially increase the potential magnitude of impact and significance of effect. Should more extensive mitigation measures in the form of substantial and additional roadside planting be included; this would limit some of the remaining views of the Scheme and of associated traffic movements. However, this would ultimately establish as a linear wooded corridor, and this would be at odds with the wider less heavily wooded landscape features of the landscape. To this end, the Applicant does not consider that additional measures to mitigate the Scheme's visual effects would be appropriate.

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Planning Inspectorate Scheme: **TR010059**Application Document Reference: **TR010059/7.8.4** 



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Permanent and irreversible loss of below ground heritage assets:  - Bronze Age cist burials (HER 5033) - Additional remains associated with findspot of two Neolithic or Bronze Age flint flakes (HER 5062) - Earthworks east of Heckley House (WSP 016)  Potential archaeological remains dating from Prehistoric, Medieval, Industrial, Modern date, Early Medieval and Late Medieval periods of medium value.	Construction	Preservation through record.	CEMP	Moderate Adverse D/P/LT	N/A	Below-ground Heritage Assets  Where direct adverse impacts on below-ground cannot be mitigated through avoidance (i.e. preservation in-situ), the only other method for mitigation available is preservation by record (excavation, recording, reporting and archiving). While it is acknowledged that this approach would reduce the magnitude of impacts, and therefore the significance effects, the heritage asset would still be subject to direct and permanent adverse impacts as the physical remains of the asset is lost.  The use of preservation by record where heritage assets are to be lost is in-keeping with NPS NN paragraph 5.140 and NPPF paragraph 199.  While the magnitude of impact is the same for each heritage assets effected, the value of each asset would vary. The residual effects on heritage assets of negligible and low value would be slight adverse (not-significant), while those of medium, high and very high value it would be moderate, large or very large (significant). The assessment predicts that the likelihood is that below ground remains would be of negligible to medium value, and a low likelihood for below ground remains of high or very high value.
Permanent and irreversible loss of unknown below ground heritage asset of very high importance ranging from the Prehistoric	Construction	Preservation through record.	СЕМР	Very Large Adverse D/P/LT	N/A	



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
to the Post-Medieval period						
Permanent and irreversible loss of unknown below ground heritage assets of high importance ranging from the Prehistoric to the Post-Medieval period.	Construction	Preservation through record.	СЕМР	Large Adverse D/P/LT	N/A	
Change in setting of heritage assets:  - Grade II Listed Building Heckley House (NHLE 1042044) - Grade II Listed Building Dovecote to the east of Heckley Fence Farmhouse with Attached Wall (NHLE 1371059) - Grade II Listed Building Patterson Cottage (NHLE 1371080) - Grade II Listed Building West Linkhall Farmhouse (NHLE 1298856)		Best practice measures are set out in the Outline CEMP (Application Document Reference: TR010041/APP/7.3) would manage working in proximity to designated assets.	CEMP	Moderate Adverse D/T/ST	N/A	The residual significant effects on setting in the construction phase are temporary and would be removed once construction is completed.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Scheduled Monument Camp at West Linkhall (NHLE 1006500)						
Change in setting of the Grade II Listed Building Dovecote to the east of Heckley Fence Farmhouse with Attached Wall (NHLE 1371059)	Operation	Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6)).	Landscape Mitigation Plan / Landscape Management Plan / HEMP	Moderate Adverse D / P / LT	Monitoring of the growth and establishment of the planting strategy by the Applicant implemented as part of the Scheme through the HEMP, via the CEMP, and as a requirement in the DCO.	The impacts on the heritage asset are due to the location of Heckley Fence Accommodation Overbridge which will represent a considerable change in the assets immediate setting. The impacts of this change cannot be reduced through any design or mitigation. The effects, however, are judged to be moderate adverse which is equivalent to less than substantial harm. NPS NN Paragraph 5.134 states that "Where the proposed development will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal" (see also NPPF paragraph 196).  The public benefits of the Scheme as a whole are discussed in the Case for the Scheme [APP 344]
Chapter 9: Biodiversi	ity					
Permanent loss of watercourse habitat for fish during the extension and realignment of culverts and during construction of new culverts.	Construction	Best practice measures are set out in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).  Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume 6 of this ES (Application Document Reference: TR010041/APP/6.6).	CEMP  Landscape Mitigation Masterplan / Landscape Management Plan / HEMP	Moderate Adverse D/P/LT	N/A	Watercourses have been reinstated (realignments) where possible. It is not considered viable to readily create new lengths of watercourse. In addition, the diversion of water from an existing watercourse or the modification of an existing watercourse to increase its length (for example, by meandering the channel) is also not considered a viable option, as this would increase the impacts of the Scheme. Mitigation includes the provision of gravel beds within culverts, where possible, and the removal of a step-weir from Shipperton Burn to improve habitat for fish and fish passage. Whilst these measures have been included, owing to the permanent loss of watercourse habitat (i.e. the natural channel as opposed to the loss of watercourses absolutely) a Moderate adverse effect was identified.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Chapter 11: Geology	and Soils					
Agricultural land take of approximately 26 ha of Best and Most Versatile (BMV) land	Construction	N/A	N/A	Large Adverse D/P/LT	N/A	The permanent loss of BMV agricultural land is a requirement of the Scheme. The available options for reduction in loss of BMV land is limited via design, however the Scheme has been designed to minimise the loss of land where possible. The permanent loss of BMV land therefore remains a large adverse effect.  Mitigation measures to be put in place during construction include the sustainable management of soils stripped from areas of permanent land take and re-used where practical.
The overall assessment of agricultural land loss, including approximately 26 ha of BMV land, approximately 16 ha of moderate quality land and approximately 1 ha of poor quality land. For the purposes of the assessment the areas not surveyed have been included as BMV.	Construction	N/A	N/A	Neutral to Large Adverse D/P/LT	N/A	Given the nature of the Scheme, predominantly comprising the widening of the existing highway, mitigation measures to reduce the significant effects associated with the permanent loss of agricultural land are limited via the requirements of the Scheme design. The permanent loss of agricultural land is a necessary requirement for the construction of Part B, it therefore remains a significant adverse effect.  Mitigation measures to be put in place during construction include the sustainable management of soils stripped from areas of permanent land take and re-used where possible as part of the Scheme.
Updated DMRB Guida	ince					
Permanent loss of Grade 3b agricultural land	Construction	N/A	N/A	Moderate Adverse  D / P / LT  (Overall conclusions of the assessment of significance for agricultural land would remain the same when	N/A	Mitigation measures to reduce the significant effects associated with the permanent loss of moderate quality agricultural land are limited via the requirements of the Scheme design. The permanent loss of moderate quality agricultural land therefore remains a significant adverse effect.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
				compared to former DMRB guidance)		
Chapter 12: Populati	on and Human	Health	'			
PRoWs closed or diverted during the construction period:  - 110/004 - 129/014 - 110/013 - 129/022 - 110/019 - 110/010 - 129/021 - 110/003 - 129/009 - 129/024 - 129/004	Construction	Diversions to ensure that some routes remain open and provide safe access for WCH.  Consultation regarding the diversions with affected individuals, groups, and Northumberland County Council (NCC).  A PRoW Management Plan would be produced by the main contractor	CEMP	Moderate Adverse D / T-P / ST-LT	N/A	Temporary and permanent diversions of PRoW have been proposed where practicable and possible, following consultation with NCC and local landowners, but due to the nature of the Scheme (whereby single carriageway to be widened to dual carriageway) PRoW which previously stretched either side of the carriageway (with no formal crossing of the A1) have been stopped up for safety and accessibility reasons (in line with the Scheme objectives to improve safety (refer to paragraph 2.2.1 (c) Chapter 2: The Scheme [APP-037], therefore increasing journey lengths for WCH to incorporate safe crossing facilities. Additional footbridges to increase connectivity for WCH would increase the land take, and would not be proportionate to the low level of users of the PRoW network, as demonstrated by the survey data outlined in Appendix TT.1.
Removal of three bus stops at Charlton Mires and along the B5341	Construction	Temporary bus stops to be provided. The exact locations of these bus stops would be finalised prior to construction in discussions with the service provider and NCC as the Highway Authority.	CTMP	Potential significant effect (subject to journey origin) D/T/ST	N/A	Temporary and permanent diversions of PRoW have been proposed where practicable and possible, following consultation with NCC and local landowners, but due to the nature of the Scheme (whereby single carriageway to be widened to dual carriageway) PRoW which previously stretched either side of the carriageway (with no formal crossing of the A1) have been stopped up for safety and accessibility reasons (in line with the Scheme objectives to improve safety (refer to paragraph 2.2.1 (c) Chapter 2 The Scheme [APP-037], therefore increasing journey lengths for WCH to incorporate safe crossing facilities. Additionally, bus stops would be removed from the Scheme on the A1 where it is to be dualled, and there is a limitation to locations where temporary and permanent replacement bus stops can be placed (as they need to be located on the local road network rather than the dualled A1 in line with the Scheme Objectives). Therefore, even with PRoW diversions and additional provision,



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
						depending on the origin and destination of pedestrians and bus users, a significant increase in journey length may occur that cannot be mitigated.
PRoWs permanently diverted or amended during the operation period:  - 110/004 - 129/014 - 110/013 - 129/022 - 129/013 - 110/019 - 110/010 - 129/021 - 110/003 - 129/009 - 129/024 - 129/004	Operation	Permanent diversions to ensure that some routes remain open and provide safe access for WCH.	CTMP	Moderate Adverse D/P/LT	N/A	Temporary and permanent diversions of PRoW have been proposed where practicable and possible, following consultation with NCC and local landowners, but due to the nature of the Scheme (whereby single carriageway to be widened to dual carriageway) PRoW which previously stretched either side of the carriageway (with no formal crossing of the A1) have been stopped up for safety and accessibility reasons (in line with the Scheme objectives to improve safety (refer to paragraph 2.2.1 (c) Chapter 2 The Scheme [APP-037], therefore increasing journey lengths for WCH to incorporate safe crossing facilities. Additional footbridges to increase connectivity for WCH would increase the land take and the cost of the Scheme, and would not be proportionate to the low level of users of the PRoW network, as demonstrated by the survey data outlined in Appendix TT.1
Removal of three bus stops at Charlton Mires and along the B5341	Operation	Permanent bus stops to be provided.	CEMP	Potential significant effect (subject to journey origin) D / T / ST	N/A	Temporary and permanent diversions of PRoW have been proposed where practicable and possible, following consultation with NCC and local landowners, but due to the nature of the Scheme (whereby single carriageway to be widened to dual carriageway) PRoW which previously stretched either side of the carriageway (with no formal crossing of the A1) have been stopped up for safety and accessibility reasons (in line with the Scheme objectives to improve safety (refer to paragraph 2.2.1 (c) of Chapter 2 The Scheme [APP-037], therefore increasing journey lengths for WCH to incorporate safe crossing facilities. Additional footbridges to increase connectivity for WCH would increase the land take, and were not deemed to be proportionate to the low level of users of the PRoW network, as demonstrated by the survey data outlined in Appendix TT.1. Additionally, bus stops would be removed from the Scheme on the A1 where it is to be dualled, and there is a limitation to locations where



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
						replacement bus stops can be placed (as they need to be located on the local road network rather than the dualled A1 in line with the Scheme Objectives). Therefore, even with PRoW diversions and additional provision, depending on the origin and destination of pedestrians and bus users, a significant increase in journey length may occur that cannot be mitigated.
Relief from existing severance through provision of grade separated WCH facilities	Operation	N/A	N/A	Substantial D / P / LT	N/A	N/A
Temporary and permanent land take and loss of residence and farm buildings from Charlton Mires Farm	Construction	The Applicant, alongside the District Valuer are currently discussing suitable compensation for temporary/permanent land take required for the scheme with the occupiers of Charlton Mires Farm.	N/A	Large Adverse D/P/LT	N/A	The effects are reported as a worst case and the Scheme has been designed to limit land take where possible. The demolition of Charlton Mires Farm required for Part B are not possible to avoid under the Scheme design, and there is no possible mitigation that would reduce the significance of these effects. Landowners would however be compensated for loss of their property.
Permanent land take and loss of residence from East Cottage	Construction	The Applicant, alongside the District Valuer are currently discussing suitable compensation for temporary/permanent land take required for the scheme with the occupiers of East Cottage.	N/A	Large Adverse D/P/LT	N/A	The effects are reported as a worst case and the Scheme has been designed to limit land take where possible. The demolition of East Cottage required for Part B is not possible to avoid under the Scheme design, and there is no possible mitigation that would reduce the significance of these effects. Landowners would however be compensated for loss of their property.
Impacts on agricultural land holdings - Charlton Mires Farm	Construction	Any temporarily required land would be reinstated to its original condition following the completion of construction.	СЕМР	Large Adverse D / T-P / ST- LT	N/A	Agricultural land take has been minimised where possible, but the current design has resulted in land take from Charlton Mires Farm for Part B, where the proportion of land take is the main factor of the level of significance. Landowners would be compensated for loss of their land, but this is not able to mitigate for the loss of land and reduce the significance of effect.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		Land and surface drainage affected by the construction works would be reinstated and land restored to a functional state.  Appropriate access to the affected fields would be provided where required and any farm boundaries would be reinstated to maintain the boundary and restore landscape and ecology features.  Pursuant to the Compensation Code, compensation would be agreed as part of Part B with the relevant parties whose land would be temporarily and permanently acquired or severed to accommodate Part B				Mitigation measures to be implemented during construction are set out within the Outline CEMP [APP-346], which is to be developed further into a full CEMP in discharging requirement 4 of the dDCO [APP-014]. Detailed design discussions (also considering accommodation works), will provide an opportunity for smaller measures to improve drainage, upgrade boundary fences, gates, tracks to be considered, and mitigation will be agreed on a case by case basis. However, these measures are unlikely to mitigate fully and reduce the significant effects identified within the assessment.
Impacts on agricultural land holdings - East Cottage	Construction	Any temporarily required land would be reinstated to its original condition following the completion of construction.  Land and surface drainage affected by the construction works would be reinstated and land restored to a functional state.	СЕМР	Very Large Adverse D / T-P / ST- LT	N/A	Agricultural land take has been minimised where possible, but the current design has resulted in land take from East Cottage for Part B, where the proportion of land take is the main factor of the level of significance. Landowners would be compensated for loss of their land, but this is not able to mitigate for the loss of land and reduce the significance of effect.  Mitigation measures to be implemented during construction are set out within the Outline CEMP [APP-346], which is to be developed further into a full CEMP in discharging requirement 4 of the dDCO [APP-014]. Detailed design discussions (also considering accommodation works), will provide an opportunity for smaller measures to improve drainage, upgrade boundary fences, gates, tracks to be considered, and mitigation will be agreed on a case by



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		Appropriate access to the affected fields would be provided where required and any farm boundaries would be reinstated to maintain the boundary and restore landscape and ecology features.				case basis. However, these measures are unlikely to mitigate fully and reduce the significant effects identified within the assessment.
		Pursuant to the Compensation Code, compensation would be agreed as part of Part B with the relevant parties whose land would be temporarily and permanently acquired or severed to accommodate Part B				
Impacts on agricultural land holdings - West Farm	Construction	Any temporarily required land would be reinstated to its original condition following the completion of construction.  Land and surface drainage affected by the construction works would be reinstated and land restored to a functional state.  Appropriate access to the affected fields would be provided where required and any farm boundaries would be reinstated to maintain the boundary	СЕМР	Large Adverse D/T/ST	N/A	Agricultural land take has been minimised where possible, but the current design has resulted in land take from West Farm for Part B, where the proportion of land take is the main factor of the level of significance. Landowners would be compensated for loss of their land, but this is not able to mitigate for the loss of land and reduce the significance of effect.  Mitigation measures to be implemented during construction are set out within the Outline CEMP [APP-346], which is to be developed further into a full CEMP in discharging requirement 4 of the dDCO [APP-014]. Detailed design discussions (also considering accommodation works), will provide an opportunity for smaller measures to improve drainage, upgrade boundary fences, gates, tracks to be considered, and mitigation will be agreed on a case by case basis. However, these measures are unlikely to mitigate fully and reduce the significant effects identified within the assessment.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		and restore landscape and ecology features.  Pursuant to the Compensation Code, compensation would be agreed as part of Part B with the relevant parties whose land would be temporarily and permanently acquired or severed to accommodate Part B				
Impacts on agricultural land holdings - Charlton Mires Farm	Operation	Appropriate access to the affected fields would be provided where required.  Pursuant to the Compensation Code, compensation would be agreed as part of Part B with the relevant parties whose land would be permanently acquired or severed to accommodate Part B	CEMP	Large Adverse D/P/LT	N/A	Agricultural land take has been minimised where possible, but the current design has resulted in land take from Charlton Mires Farm for Part B, where the proportion of land take is the main factor of the level of significance. Landowners would be compensated for loss of their land, but this is not able to mitigate for the loss of land and reduce the significance of effect.  Detailed design discussions (also considering accommodation works), will provide an opportunity for smaller measures to improve drainage, upgrade boundary fences, gates, tracks to be considered, and mitigation will be agreed on a case by case basis. However, these measures are unlikely to mitigate fully and reduce the significant effects identified within the assessment.
Impacts on agricultural land holdings - East Cottage	Operation	Appropriate access to the affected fields would be provided where required.  Pursuant to the Compensation Code, compensation would be agreed as part of Part B with the relevant parties whose land would be permanently acquired	CEMP	Very Large Adverse D/P/LT	N/A	Agricultural land take has been minimised where possible, but the current design has resulted in land take from East Cottage for Part B, where the proportion of land take is the main factor of the level of significance. Landowners would be compensated for loss of their land, but this is not able to mitigate for the loss of land and reduce the significance of effect.  Detailed design discussions (also considering accommodation works), will provide an opportunity for smaller measures to improve drainage, upgrade boundary fences, gates, tracks to be considered, and mitigation will be agreed on a case by case basis. However, these measures are unlikely to mitigate fully and reduce the significant effects identified within the assessment.



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		or severed to accommodate Part B				

## **Chapter 15: Combined Effects for Part B**

Combined effects	O a made a di a	NAME of the second	OEMD	Laure Adelia	NA - mit - min -	
upon residents	Construction	Mitigation measures relating to potential effects on residents are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	CEMP	Large Adverse D-ID / T-P / ST-LT	Monitoring measures relating to potential effects on residents are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	As no further mitigation measures are feasible to reduce the residual significant effects anticipated as a result of Part B (refer to rows above), significant effects would remain for combined effects.
Combined effects on road users	Construction	Mitigation measures relating to potential effects on road users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	CEMP	Moderate Adverse D / T / ST	Monitoring measures relating to potential effects on road users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
Combined effects upon users of PRoW (WCH)	Construction	Mitigation measures relating to potential effects on PRoW users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	CEMP	Large Adverse D / T-P / ST-LT	Monitoring measures relating to potential effects on PRoW users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	
Combined effects upon statutory and non - statutory designated ecological sites/local biodiversity	Construction	Mitigation measures relating to potential effects on PRoW users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3). Deliver mitigation strategy as per the Landscape Mitigation Plan (Figure 7.10, Volume	CEMP / Landscape Mitigation Plan / Landscape Management Plan / HEMP	Moderate Adverse to Moderate Beneficial D-ID / T-P / ST-LT	Monitoring measures relating to potential effects on PRoW users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		6 of this ES (Application Document Reference: TR010041/APP/6.6)).				
Combined effects upon agricultural land and associated rural enterprises	Construction	Mitigation measures relating to potential effects on agricultural land and rural enterprises are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	CEMP	Very Large Adverse D / T-P / ST-LT	Monitoring measures relating to potential effects on agricultural land and rural enterprises are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	
Combined effects upon residential receptors	Operation	Mitigation measures relating to potential effects on residential properties are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document	CEMP / Landscape Mitigation Plan / Landscape Management Plan / HEMP	Major Beneficial to Moderate Adverse D / P / LT	Monitoring measures relating to potential effects on residential properties are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document	



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
		Reference: TR010041/APP/7.3).			Reference: TR010041/APP/7.3).	
Combined effects upon users of PRoW (WCH)	Operation	Mitigation measures relating to potential effects on PRoW users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	CEMP / Landscape Mitigation Plan / Landscape Management Plan / HEMP	Slight Beneficial to Moderate Adverse D / P / LT	Monitoring measures relating to potential effects on PRoW users are set out in the respective Technical Chapters 5 to 13 and 15, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	



## Table 3 – Cumulative Assessment: Summary of Significant Effects (refer to Table 17-4 of Chapter 16: Assessment of Cumulative Effects, Volume 4 of this ES (Application Document Reference: TR010041/APP/6.4))

Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures			
WITHIN TOPIC COMBINED EFFECTS FOR THE SCHEME									
Noise and Vibration									
Updated DMRB Guidance									
Potential for one additional significant adverse effect at Northgate Farm if the noise barrier (PNB1) cannot be built at this location, however, it is likely that this property would be eligible for compensation under the Noise Insulation Regulations (NIR) if this is the case	Operational	Noise enhancement barrier (PNB1), however due to design constraints the construction of this barrier is not yet confirmed.	N/A (Policy compliance enhancement measure	Minor Adverse (considered to be significant under updated guidance) if PNB1 cannot be constructed.  D/P/LT	N/A	If PNB1 can be built, Northgate Farm is not predicted to experience a significant adverse operational noise effect.  If PNB1 cannot be built, Northgate Farm is predicted to experience a significant adverse operational noise effect. The following alternative mitigation measures were considered should this be the case.  Road speed and vehicle restrictions  Whilst a reduction in the road speed limit or a restriction on noisy vehicles using the Scheme would have the potential to reduce noise levels, such measures are not normally suitable for use on motorways and all purpose trunk roads. This is acknowledged within DMRB LA 111 Noise and Vibration which notes that:  "Speed limits or restrictions on noisy vehicle types are not normally practical for use on motorways and all purpose trunk roads."  Modifications to affected buildings  As noted in Chapter 6 Noise and Vibration Part (APP-042), if PNB1 cannot be built, Northgate Farm is likely to be eligible for compensation under the Noise Insulation Regulations (NIR).  Loss of value  It should be noted that following the opening of the Scheme, residents would potentially be able to claim compensation for loss of value to their property on the grounds of noise through the Land Compensation A Part 1 Claims.			



Description of Effect	Construction / Operation	Proposed Mitigation	Mitigation Delivery Mechanism	Significance of Residual Environmental Effect	Monitoring Requirements	Justification for residual significant effects and no further mitigation measures
CROSS TOPIC COMBINED EFFE	ECTS FOR THE	SCHEME			,	
Combined effects on residents within the vicinity of the Main Compound that could be affected by the use and economic benefit of the Main Compound and construction traffic traveling between the Main Compound and Part B.	Construction	Mitigation measures relating to potential effects on residents are set out in the respective Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and Part B, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	CEMP	Moderate Adverse to Slight Beneficial D-ID / T / ST	Monitoring measures relating to potential effects on residents are set out in the respective Technical Chapters 5 to 13 and 15 for Part A, Volume 2 of this ES (Application Document Reference: TR010041/APP/6.2) and Part B, Volume 3 of this ES (Application Document Reference: TR010041/APP/6.3) and presented in the Outline CEMP (Application Document Reference: TR010041/APP/7.3).	As no further mitigation measures are feasible reduce the residual significant effects anticipate as a result of the Scheme (refer to rows above significant effects would remain for combined effects.

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