A428 Black Cat to Caxton Gibbet improvements

TR010044

Volume 6

6.9 Schedule of Mitigation

Planning Act 2008

Regulation 5(2)(a)

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

26 February 2021

Infrastructure Planning

Planning Act 2008

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

A428 Black Cat to Caxton Gibbet improvements

Development Consent Order 202[ ]

Schedule of Mitigation

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1 Schedule of mitigation

1.1 Introduction

1.1.1 The following tables present details of the following types of measure identified through the EIA:

a. Embedded mitigation measures – these comprise design-based decisions, actions and measures that have been identified to avoid, prevent or reduce the adverse environmental effects of the Scheme.

b. Essential mitigation measures – these comprise other measures and techniques that have been identified to reduce and, where possible, offset the likely adverse effects of the Scheme.

c. Enhancement measures – these comprise measures that are over and above any embedded or essential mitigation measures which have been identified to maximise opportunities to deliver wider environmental benefits.

1.1.2 Each measure is prefixed with an identifier to indicate its type, as follows:

a. Embedded = EMB.

b. Essential = ESS.

c. Enhancement = ENH.

1.1.3 A further reference is then included to identify the environmental topic it relates to. By way of example, measure “EMB – AQ1” means:

a. EMB = Identifies that the measure, action or commitment constitutes an embedded mitigation measure.

b. AQ = The abbreviation for the topic to which the measure relates, in this example Air Quality.

c. 1 = The sequential reference number of the measure within the topic.

1.2 Mitigation schedules

Table 1: Air quality

Ref	Source document	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable)	How the action is to be implemented	Responsible person(s)
Embedded mitigation								
EMB – AQ1	Chapter 5, Air quality **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The Scheme has been designed to maintain or increase the distances between properties and traffic, where possible.	No	To maintain or increase the separation distance between the source of pollutants (traffic) and sensitive receptors (properties).	Effects of road traffic emissions on local air quality.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3].**	Principal Contractor
EMB – AQ2	Chapter 5, Air quality **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The Scheme has been designed to maintain traffic flows on the A1 and A421 through Black Cat junction and the surrounding road network.	No	To maintain air quality at sensitive receptors.	Effects of road traffic emissions on local air quality.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**.	Principal Contractor
EMB – AQ3	Chapter 5, Air quality **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The Scheme has been designed to remove traffic from the existing A428 onto the new dual carriageway.	No	To increase the separation distance between the source of pollutants (traffic) and sensitive receptors (properties).	Effects of road traffic emissions on local air quality.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**.	Principal Contractor
Essential mitigation								
ESS – AQ1	Chapter 5, Air quality **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/6.8]**	The Principal Contractor will develop and implement an Air Quality Management Plan (AQMP) based upon the outline AQMP in the First iteration EMP **[TR010044/APP/6.8]**. The Plan will adopt a range of industry standard good practice construction phase dust mitigation and monitoring measures, and general control measures, relating to: a. Dust management. b. Demolition and earthworks activities.	Yes	To ensure air quality is managed appropriately across the Scheme.	Effects on sensitive receptors. Assessment assumes good practice mitigation and monitoring measures will be	Implementation of the AQMP. Principal Contractor will undertake regular inspections of receptors to monitor dust, record inspection results, and make the log	Contractual requirement between Highways England and the Principal Contractor. First Iteration EMP **[TR010044/APP/6.8]**. DCO Requirement 3 **[TR010044/APP/3.1]**.	Principal Contractor

Ref	Source document	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable)	How the action is to be implemented	Responsible person(s)
		c. Surfacing works. d. General and site specific construction activities and locations e. Community liaison. These measures will be applied during all works undertaken based on the level of construction dust risk at sensitive receptors.			followed during the construction phase.	available to the relevant local authority upon request.		
Enhancement measures								
		None identified.						

Table 2: Cultural heritage

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
Embedded mitigation								
EMB – CH1	Chapter 6 Cultural heritage **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Chapter 3 Assessment of alternatives **[TR010044/APP/6.1]**	The selection and position of construction compounds and construction areas (e.g. borrow pits) and their design/layout have taken account of known and potential archaeology.	No	To avoid construction-related disturbance to buried archaeology in locations that have been identified as having high archaeological potential.	Effects on archaeological sites and features of known or potential value.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. The General Arrangement Plans **[TR010044/APP/2.4]**. Archaeological Mitigation Strategy **[TR010044/APP/6.10]**. First Iteration Environmental Management Plan (EMP) **[TR010044/APP/6.8]**.	Principal Contractor
EMB – CH2	Chapter 6 Cultural heritage **[TR010044/APP/6.1]** Archaeological Mitigation Strategy **[TR010044/APP/6.12]**	Archaeological sites and features of acknowledged value identified within construction compounds and construction areas (for example borrow pits) would be fenced off, with notices prohibiting works in those area attached to the fencing.	Yes	To protect archaeological remains within those sites from accidental disturbance during construction of the Scheme.	Effects on archaeological sites and features of known or potential value.	Monitoring of the works would be undertaken by the Archaeological Clerk of Works. Implementation and sign off would be by the appointed Archaeological Contractor.	Measures secured through: Requirement 9 of the DCO **[TR010044/APP/3.1]**. Archaeological Mitigation Strategy **[TR010044/APP/6.12]**.	Archaeological Contractor
EMB – CH3	Chapter 6 Cultural heritage **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The total area of land within the Order Limits has been limited to that required to construct, operate and maintain the Scheme.	No	To avoid unnecessary disturbance to buried archaeology.	Effects on archaeological sites and heritage features of value.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
EMB – CH4	Chapter 6 Cultural heritage **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Confining road lighting introduced as part of the Scheme to new and improved sections of road where road safety is a priority.	No	To reduce the potential for light spill intrusion into the setting of heritage assets.	Effects on the setting of heritage assets.	N/A	Measures would be secured through: Requirement 17 of the DCO. The General Arrangement Plans **[TR010044/APP/2.4]**.	Principal Contractor
Essential mitigation								
ESS – CH1	First Iteration EMP **[TR010044/APP/6.8]**	The Principal Contractor will develop and implement an Archaeological Management Plan (AMP) based upon the measures and approaches detailed within the outline AMP contained in the First Iteration EMP for the Scheme **[TR010044/APP/6.8]**.	No	To manage the historic environment and ensure it is protected in a consistent and integrated manner across the Scheme.	Effects on sites and features of known or potential value.	Implementation of the AMP.	Contractual requirement between Highways England and the Principal Contractor First Iteration EMP **[TR010044/APP/6.8]**. DCO Requirement 3 **[TR010044/APP/3.1]**.	Principal Contractor
ESS – CH2	Archaeological Mitigation Strategy **[TR010044/APP/6.12]**	The Principal Contractor will implement the measures and approaches as set out within the Archaeological Mitigation Strategy (AMS) for the Scheme. The AMS is presented within the DCO application as **[TR010044/APP/6.12]**.	No	To ensure that all archaeological works are undertaken in accordance with an approved strategy.	Effects on sites and features of known or potential value.	Implementation of the AMS.	Contractual requirement between Highways England and the Principal Contractor Archaeological Mitigation Strategy **[TR010044/APP/6.12]**. DCO Requirement 9 **[TR010044/APP/3.1]**.	Principal Contractor
ESS – CH3	Archaeological Mitigation Strategy **[TR010044/APP/6.12]**	Programme of archaeological excavation, sampling, geoarchaeological assessment and recording. Full details of the scope and extent of the required work is contained within the AMS **[TR010044/APP/6.12]**.	Yes	Record archaeological sites prior to impact by the Scheme.	Effects on sites and features of known or potential value.	Implementation of the AMS. Sign-off by Archaeological Clerk of Works, curators and report by Archaeological Contractor.	Contractual requirement between Highways England and the Principal Contractor Archaeological Mitigation Strategy **[TR010044/APP/6.12]**. DCO Requirement 9 **[TR010044/APP/3.1]**.	Principal Contractor's Archaeological Contractor Archaeological Clerk of Works
ESS – CH4	Archaeological Mitigation Strategy **[TR010044/APP/6.12]**	Methodology to deal with unexpected archaeological remains. Full details of the scope and extent of the required work is contained within the AMS **[TR010044/APP/6.12]**.	Yes	Record archaeological sites prior to impact by the Scheme.	Effects on sites and features of known or potential value.	Implementation of the AMS. Sign-off by Archaeological Clerk	Contractual requirement between Highways England and the Principal Contractor.	Principal Contractor's Archaeological Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
						of Works, curators and report by Archaeological Contractor.	Archaeological Mitigation Strategy **[TR010044/APP/6.12]**. DCO Requirement 9 **[TR010044/APP/3.1]**.	Archaeological Clerk of Works
ESS – CH5	Requirement 16 of the DCO **[TR010044/APP/3.1]** Archaeological Mitigation Strategy **[TR010044/APP/6.12]**	Built heritage survey and recording of the Grade II listed Brook Cottages prior to demolition. Details of the required work is addressed within the AMS **[TR010044/APP/6.12]**, as secured within Requirement 16 of the DCO **[TR010044/APP/3.1]**.	Yes	Record built heritage asset prior to impact by the Scheme.	Loss of Grade II listed heritage asset.	Implementation of the AMS. Sign-off by Archaeological Clerk of Works, curators and report by Archaeological Contractor.	Contractual requirement between Highways England and the Principal Contractor. Archaeological Mitigation Strategy **[TR010044/APP/6.12]**. DCO Requirement 16 **[TR010044/APP/3.1]**.	Principal Contractor's Archaeological Contractor Archaeological Clerk of Works
ESS – CH6	Requirement 16 of the DCO **[TR010044/APP/3.1]**	Highways England commits to relocating the structural elements of Brook Cottages that are capable of being reconstructed, subject to a structural survey concluding that this is feasible and agreement being reached with a willing receptor museum. This is secured within Requirement 16 of the DCO **[TR010044/APP/3.1]**.	No	To preserve (as a minimum) the historical features of interest associated with Brook Cottages.	Assumption that the structural elements of the building can be relocated and that a willing receptor museum can be found.	If reconstruction is feasible, a method statement will be approved by the Secretary of State in consultation with Historic England and the relevant local authority.	Contractual requirement between Highways England and the Principal Contractor. DCO Requirement 16 **[TR010044/APP/3.1]**.	Principal Contractor
ESS – CH7	Chapter 6 Cultural heritage **[TR010044/APP/6.1]** Archaeological Mitigation Strategy **[TR010044/APP/6.12]**	Three Grade II listed milestones and mileposts and one non-designated milestone would be impacted by the Scheme. These assets would be removed, stored and reinstated as close as possible to their original location. A Method Statement will be prepared by the Archaeological Contractor and agreed with the relevant local authorities for the removal, safekeeping and reinstatement of historic milestones. Full details of the scope and extent of the required work is contained within the AMS **[TR010044/APP/6.12]**.	Yes	Record and safeguard built heritage assets.	Assumption that the milestones / mileposts will be relocated.	Sign-off by Archaeological Clerk of Works, curators and report by Archaeological Contractor.	Contractual requirement between Highways England and the Principal Contractor. Archaeological Mitigation Strategy **[TR010044/APP/6.12]**. DCO Requirement 15 **[TR010044/APP/3.1]**.	Principal Contractor
Enhancement measures								
		None identified.						

Table 3: Landscape and visual effects

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
Embedded mitigation								
EMB – LV1	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The total area of land within the Order Limits has been limited to that required to construct, operate and maintain the Scheme.	No	To avoid impacts by retaining, where possible, established vegetation and features that contribute to local landscape character and that provide an existing visual screening function.	Effects on local landscape character and visual amenity.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**.	Principal Contractor
EMB – LV2	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 3 Assessment of alternatives **[TR010044/APP/6.1]**	Modifications made to the horizontal alignment of the new dual carriageway during the design-development process.	No	To avoid impacts on notable and valued landscape features – for example veteran Elm tree located to the north of Hen Brook, and other veteran trees at Croxton Park registered park and garden.	Effects on components and features that combine to influence local landscape character.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**.	Principal Contractor
EMB – LV3	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Optimisation of the horizontal and vertical alignment of the new dual carriageway, to minimise impacts associated with crossing valleys and landform within the landscape, and to reduce the visual impact of new junctions (for example Black Cat junction).	No	To minimise impacts associated with crossing valleys and landforms within the local landscape. To reduce the visual intrusion of new highway components in existing views.	Integration of the Scheme into the local landscape. Effects on visual amenity.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**.	Principal Contractor
EMB – LV4	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Positioning of sections of the new dual carriageway below existing ground level within earthwork cuttings.	No	To visually contain much of the new dual carriageway and its associated infrastructure and traffic movements	Effects on visual amenity.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
				from existing views.			of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**.	
EMB – LV5	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Designing certain earthworks to have slope gradients shallower than 1 in 3.	No	To soften the appearance of engineering earthworks along sections of the new dual carriageway and achieve good integration with the rural landscape.	Integration of the Scheme into the local landscape.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**.	Principal Contractor
EMB – LV6	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Confining road lighting introduced as part of the Scheme to new and improved sections of road where road safety is a priority.	No	To minimise the potential for light spill to intrude into night time views.	Effects on visual amenity.	N/A	Measures would be secured through: Requirement 17 of the DCO **[TR010044/APP/3.1]**. The General Arrangement Plans **[TR010044/APP/2.4]**.	Principal Contractor
EMB – LV7	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.5 Construction Compound Locations and Indicative Layouts **[TR010044/APP/6.2]**	The outline definition of zones within the main site compounds to accommodate materials storage areas, define areas for temporary works and operations, and the locations for other equipment and infrastructure (for example welfare facilities).	No	To minimise the temporary impact of the main site compounds in the local landscape, and in available views.	Effects on local landscape character and visual amenity.	Implementation of the construction site layout techniques set out in the Construction Compound Management Plan contained in the First Iteration EMP **[TR010044/APP/6.8]**.	Measures would be secured through: First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
EMB – LV8	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]**	Factoring landscape and visual considerations into the form and design of permanent structures (for example footbridges).	No	To improve the appearance of structures in available views	Effects on visual amenity.	No	Measures would be secured through: The description of the authorised development	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
	Chapter 2 The Scheme **[TR010044/APP/6.1]** Chapter 3 Assessment of alternatives **[TR010044/APP/6.1]**			within the local landscape.			contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**.	
EMB – LV9	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Minimising the introduction of new gantries and VMS throughout the Scheme.	No	To reduce the perception of visual clutter across the Scheme.	Effects on visual amenity.	N/A	Measures would be secured through: Requirement 12 of the DCO **[TR010044/APP/3.1]**. The General Arrangement Plans **[TR010044/APP/2.4]**.	Principal Contractor
EMB – LV10	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The reinstatement of land used temporarily during construction, where required.	No	To reinstate land post completion of construction.	Restoration of the landscape to its original character.	N/A	Measures would be secured through: First Iteration EMP **[TR010044/APP/6.8]**	Principal Contractor
EMB – LV11	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	Implementation of the following elements of the planting strategy within Chainage 0 – 1000 (A421 tie-in to the Black Cat junction). In this location the new dual carriageway would tie in with the existing A421 at approximately existing ground level. The existing noise bunds on the A421 would be reconstructed and planted with a belt of trees and shrubs to replace planting lost during the construction and provide visual screening. This would also help to integrate the new dual carriageway into the surrounding landscape. Native woodland planting and open grassland north of the realigned farm access track and public footpath to reinforce the existing landscape pattern.	Yes	To integrate the Scheme into the character of LLCA 01: East Renhold Clay Farmland. To integrate the Scheme into the existing vegetation pattern and minimise its visual impacts.	Integration of the Scheme into the local landscape. Effects on local landscape character and visual amenity.	The successful establishment of all planting and seeding areas. Maintenance and monitoring of all planting and seeding during the contract period (five years).	Measures would be secured through: Requirement 6 of the DCO **[TR010044/APP/3.1]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
EMB – LV12	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental	Chainage 1000 – 2450 (Black Cat junction to the River Great Ouse). The embankments of the Roxton Road overbridge and roundabout would be planted with native woodland to replace vegetation lost during the construction and to screen the structure. The Roxton Road bridge would be approximately 8m above the new dual carriageway, and native woodland planting north and south would screen the structure and assist in screening views from properties in Roxton to the south and Chawston to the north.	Yes	To integrate the Scheme into the character of LLCA 02: Settled Ouse Valley, LLCA 03: Wyboston and Chawston and LLCA 04: Ouse Valley.	Integration of the Scheme into the local landscape. Effects on local landscape character and visual amenity.	The successful establishment of all planting and seeding areas. Maintenance and monitoring of all planting and seeding during the contract period (five years).	Measures would be secured through: Requirement 6 of the DCO **[TR010044/APP/3.1]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
	Masterplan **[TR010044/APP/6.2]**	The new Roxton Road link would be constructed to connect Wyboston and Chawston and provide safer access to Bedford Road. Large groups of native woodland along the western section of the Roxton Road link would screen the structure of the Roxton Road link and the Black Cat junction from Chawston to the west. Further north, proposed hedgerows would restore field boundaries lost during the construction and help integrate the Scheme into the local landscape pattern. Through the Black Cat junction, the new dual carriageway would be positioned on embankments approximately 9m above existing ground level. These embankments would be maintained as open grassland and belts of trees and shrubs would be established to break up the scale and views of the structure and vehicles travelling over it. Tree and shrub planting around the surrounding attenuation basins would help integrate these drainage features into the surrounding land cover. The A1 (ground -1) would be positioned at a maximum depth of 9m, resulting in a reduction in visible traffic on the approaches to the Black Cat junction to the north and south. The Kelpie Marina access road would rise on embankments at approximately 8m high on the approach to its elevated crossing of the A1. Planting west of the track would assist in filtering or screening the tall embankments in views from Roxton to the west and help integrate new road infrastructure into the local area. The flood compensation areas south of the new dual carriageway would be integrated into the Black Cat Quarry restoration landscape. Planting would replace vegetation lost during construction and help to integrate the land with the riparian vegetation along the neighbouring River Great Ouse to the east. Widening of the A1 immediately north of the Black Cat junction would result in the loss of existing, mature vegetation along the road. The linear belt of trees and shrubs proposed along the western side of the A1 would replace vegetation lost during construction and screen views from Chawston.		To integrate the Scheme into the existing vegetation pattern and minimise its visual impacts.			First Iteration EMP **[TR010044/APP/6.8]**.	
EMB – LV13	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	Implementation of the following elements of the planting strategy within Chainage 2450 – 3850 (River Great Ouse to the ECML railway). At Chainage 2450 the new dual carriageway would cross the River Great Ouse on a viaduct. Most of the existing vegetation along the riverbanks would be retained, with additional native woodland planting proposed including woodland edge to diversify the structure and species and aid the creation of new habitats. Between Chainage 2500 – 2900 the new dual carriageway would descend into cutting to a maximum depth of 7m to pass under the Barford Road bridge. On both sides of the new dual carriageway the slopes would be seeded with a mix of species rich and open grassland. A linear belt of trees and shrubs would cover part of the	Yes	To integrate the Scheme into the character of LLCA 05: Biggin Wood Clay Vale and LLCA 04: Ouse Valley. To integrate the Scheme into the existing vegetation pattern and minimise its visual impacts.	Integration of the Scheme into the local landscape. Effects on local landscape character and visual amenity.	The successful establishment of all planting and seeding areas. Maintenance and monitoring of all planting and seeding during the contract period (five years).	Measures would be secured through: Requirement 6 of the DCO **[TR010044/APP/3.1]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
		embankments of the realigned Barford Road south of the new dual carriageway to break up the scale of these features. Extensive areas of species rich grassland would be created east of the realigned Barford Road to provide seasonal interest and new habitats. Planting on the embankments of the realigned Barford Road would also help reduce the prominence of the Barford Road bridge within the open landscape. The attenuation basin area proposed to the north-east of the Barford Road bridge would be maintained as open grassland with individual trees to help integrate the drainage infrastructure into the local landscape. Between Chainage 2900 – 3850 the new dual carriageway would gradually rise above the surrounding ground on embankments up to a maximum height of 9m to accommodate the ECML underbridge, the eastern extents of which would be planted with native woodland and open grassland to help integrate this feature into the local landscape.						
EMB – LV14	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	Implementation of the following elements of the planting strategy within Chainage 3850 – 7150 (ECML railway to Alington Hill). From Chainage 3850, the embankments of the ECML underbridge would be planted with native woodland and open grassland to assist in integrating the structure into the surrounding landscape and contribute to the wooded character of the Biggin Wood Clay Vale. The new dual carriageway would be positioned in cutting into Alington Hill between Chainage 4950 – 6250 to a maximum depth of 7.5m. On both sides the slopes would be seeded as open grassland. Large clumps of native woodland would be planted along the tops of the cutting and would cover part of the embankments in places to help integrate them with the local landscape. Hedgerow planting would reinstate field boundaries on the eastern side of the new dual carriageway to restore locally characteristic boundary features. At Chainage 5450 the Top Farm accommodation bridge would cross the new dual carriageway at approximately existing ground level. Large clumps of native woodland planting adjacent to Alington Top Farm would reduce the visual impact of the new dual carriageway and help integrate it with the surrounding landscape. Further north between Chainage 6250 – 6600, the new dual carriageway would be at ground level but contained with earth bunds. Native woodland planting on the earth bunds would screen traffic on the new dual carriageway and help integrate these features into the local landscape. The earth bund on the eastern side of the new dual carriageway would be planted with clumps of native woodland to assist the screening of views from businesses on Potton Road, including Abbotsley Golf Club. Between Chainage 6600 – 7150 the new dual carriageway would descend into a cutting with a maximum depth of 8m beneath the	Yes	To integrate the Scheme into the character of LLCA 05: Biggin Wood Clay Vale and LLCA 06: Alington Hill Clay Farmland. To integrate the Scheme into the existing vegetation pattern and minimise its visual impacts.	Integration of the Scheme into the local landscape. Effects on local landscape character and visual amenity.	The successful establishment of all planting and seeding areas. Maintenance and monitoring of all planting and seeding during the contract period (five years).	Measures would be secured through: Requirement 6 of the DCO **[TR010044/APP/3.1]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
		new B1046 bridge, which would cross the new dual carriageway. Native woodland planting would screen traffic and the new B1046 bridge in views. The new dual carriageway would result in substantial alterations to the existing landform and landscape pattern through extensive earthworks and the loss of existing field boundary vegetation. The earthworks have been designed to assist in integrating the new dual carriageway within Alington Hill by feathering out the tops of cutting slopes. Native woodland and hedgerow planting would integrate the new dual carriageway with the surrounding landscape by restoring the character of scattered woods clothing the slopes up to the plateau and to reduce its prominence.						
EMB – LV15	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	Implementation of the following elements of the planting strategy within Chainage 7150 – 9200 (Alington Hill to Wintringham). Between Chainage 7150 – 7500, embankments along the new dual carriageway would be planted with a mix of species rich and open grassland. Small, scattered blocks of native woodland and grassland would help integrate these structures into the local landscape of scattered woods. Hedgerows would replace field boundary vegetation lost during construction and tie in with the remaining hedgerows. The land around the attenuation basin to the east of the new dual carriageway would be seeded with species rich grassland to provide new habitats and seasonal interest. Between Chainage 7500 – 8700 the new dual carriageway would rise and fall on embankments to cross both Hen Brook and Wintringham Brook. These embankments would be seeded with a mix of species rich and open grassland and planted with native woodland. Extensive planting around the interfaces with Hen Brook and Wintringham Brook is proposed to help reconnect and extend existing wildlife corridors along these watercourses. Native woodland adjacent to the new dual carriageway would create further connections with the existing landscape pattern. Extensive areas of species rich grassland and individual trees would increase biodiversity and provide interest to the users of footpaths. Between Chainage 8700 – 9000 the new dual carriageway would be in cutting to a maximum depth of 4m, which would visually screen traffic within this open section of rural landscape. Native woodland and hedgerow planting would further increase the screening of traffic.	Yes	To integrate the Scheme into the character of LLCA 08: Settled Clayland Vale. To integrate the Scheme into the existing vegetation pattern and minimise its visual impacts.	Integration of the Scheme into the local landscape. Effects on local landscape character and visual amenity.	The successful establishment of all planting and seeding areas. Maintenance and monitoring of all planting and seeding during the contract period (five years).	Measures would be secured through: Requirement 6 of the DCO **[TR010044/APP/3.1]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
EMB – LV16	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Implementation of the following elements of the planting strategy within Chainage 9000 – 12250 (Cambridge Road junction, and Wintringham Brook to Gallow Brook). The new dual carriageway would pass beneath the Cambridge Road junction in cutting, reducing the visual impact of traffic. Embankments supporting the Cambridge Road junction dumbbell	Yes	To integrate the Scheme into the character of LLCA 11: Wintringham and Weald Clay Farmland.	Integration of the Scheme into the local landscape. Effects on local landscape	The successful establishment of all planting and seeding areas. Maintenance and monitoring of all	Measures would be secured through: Requirement 6 of the DCO **[TR010044/APP/3.1]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
	Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	link road would be planted with belts of trees and shrubs to reduce the perception of the junction and provide visual interest for road users. The Cambridge Road junction North Roundabout and South Roundabout would be seeded with amenity grassland to provide visual interest whilst maintaining visibility splays. A hedgerow north of the Cambridge Road junction North Roundabout would replace field boundary vegetation lost during construction. Attenuation basins on the eastern and western side of the Cambridge Road junction would be integrated into the local landscape using a mixture of species rich and open grassland, individual trees and shrubs. Between Chainage 10150 and 11000 the new dual carriageway would be approximately at existing ground level with hedgerows proposed on both sides of the new dual carriageway, tying in with the existing vegetation to reinforce the local landscape pattern. Between Chainage 11000 to 11050 a Bridleway accommodation overbridge would be constructed, the embankments of which would be planted with native woodland to integrate this structure within the local landscape and the existing woodland to the north and south. Between Chainage 11050 and 12250 the new dual carriageway would be positioned on embankment in places to cross Fox Brook and Gallow Brook. On the southern side of the new dual carriageway, a linear belt of trees and shrubs would screen traffic and help integrate the new road infrastructure into the local landscape pattern of scattered woods. Hedgerows would replace field boundary vegetation lost during construction. On the northern side of the new dual carriageway, open grassland would allow for views out across the rural landscape to provide interest for road users.		To integrate the Scheme into the existing vegetation pattern and minimise its visual impacts.	character and visual amenity.	planting and seeding during the contract period (five years).	Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	
EMB – LV17	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	Implementation of the following elements of the planting strategy within Chainage 12250 – 15300 Croxton Park (Gallow Brook and West Brook Tributary). Between Chainage 12250 and 13000, Toseland Road Bridge would be positioned on embankment and planted with native woodland to visually screen the structure. An attenuation basin on the western side of Toseland Road Bridge would be set within an area of open grassland, with individual trees, native woodland and woodland edge proposed to integrate it with the local parkland character. Between Chainage 13000 and14350, the new dual carriageway would be in cutting to a maximum depth of 4.5m, which would reduce its visual impact. On both sides of the new dual carriageway the slopes would be seeded with open grassland to provide landscape integration. Hedgerows would connect to existing field boundaries, and scattered individual trees are proposed to reflect the parkland character and wider setting of Croxton Park.	Yes	To integrate the Scheme into the character of LLCA 11: Wintringham and Weald Clay Farmland and the adjacent LLCA 12: Croxton Park. To integrate the Scheme into the existing vegetation pattern and minimise its visual impacts.	Integration of the Scheme into the local landscape. Effects on local landscape character and visual amenity.	The successful establishment of all planting and seeding areas. Maintenance and monitoring of all planting and seeding during the contract period (five years).	Measures would be secured through: Requirement 6 of the DCO **[TR010044/APP/3.1]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
		Between Chainage 14350 and 15300, the new dual carriageway would be positioned at existing ground level before rising gradually towards its crossing over the West Brook Tributary, the approach to which would be bounded by hedgerows and occasional trees.						
EMB – LV18	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	Implementation of the following elements of the planting strategy within Chainage 15300 – 17550 (West Brook Tributary and access track to Pastures Farm). Between Chainage 15300 and 16000 the new dual carriageway would drop in elevation from its crossing over the West Brook Tributary and descend into cutting. On both sides of the new dual carriageway the slopes would be seeded with open grassland to provide landscape integration. The Eltisley link would be positioned on embankment and planted with trees and shrubs to reduce the sense of scale of the junction and help integrate it with the surrounding landscape. Attenuation basins located north-west of the Eltisley link would be set within grassland, with a retained group of existing trees that are protected by TPO. A smaller attenuation basin south-west of the Eltisley link, adjacent to the realigned A428, would be planted with open grassland and clumps of native woodland to the south. The planting would provide substantial screening and tie in with existing woodland planting at the entrance to Eltisley village. Between Chainage 16000 and 17550 open grassland and scattered trees would continue along to the new dual carriageway to integrate the new road infrastructure and attenuation basins within the local landscape. Linear belts of trees and shrubs would provide visual screening to residents and enhance the existing planting north of the realigned A428. Hedgerows would replace lost field boundary vegetation south of the new dual carriageway.	Yes	To integrate the Scheme into the character of LLCA 14: Western Claylands and partially within LLCA 13: Eltisley. To integrate the Scheme into the existing vegetation pattern and minimise its visual impacts.	Integration of the Scheme into the local landscape. Effects on local landscape character and visual amenity.	The successful establishment of all planting and seeding areas. Maintenance and monitoring of all planting and seeding during the contract period (five years).	Measures would be secured through: Requirement 6 of the DCO **[TR010044/APP/3.1]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
EMB – LV19	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	Implementation of the following elements of the planting strategy within Chainage 17550 – 19137 (Caxton Gibbet junction). The new dual carriageway would be carried over the Caxton Gibbet junction dumbbell link road on an overbridge, with its embankments planted with native woodland to screen passing traffic and reduce the scale of the junction in views from the surrounding properties and footpaths. Linear belts of trees and shrubs would be provided along the northern boundaries of the realigned A428 and the Caxton Gibbet eastbound off-slip road. Caxton Gibbet Services would be retained, with a combination of existing and new planting screening views from these facilities.	Yes	To integrate the Scheme into the character of LLCA 14: Western Claylands. To integrate the Scheme into the existing vegetation pattern and minimise its visual impacts.	Integration of the Scheme into the local landscape. Effects on local landscape character and visual amenity.	The successful establishment of all planting and seeding areas. Maintenance and monitoring of all planting and seeding during the contract period (five years).	Measures would be secured through: Requirement 6 of the DCO **[TR010044/APP/3.1]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
Essential mitigation								

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
ESS – LV1	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/6.8]**	The Principal Contractor will develop and implement a Landscape and Ecological Management Plan (LEMP) based upon the measures and approaches detailed within the outline LEMP in the First Iteration EMP for the Scheme **[TR010044/APP/6.8]**. The information, measures and approaches contained in the LEMP will include, but are not limited to: a. Definition of the responsibilities of the Principal Contractor, the Ecological Clerk of Works (ECoW) and the Landscape Clerk of Works (LCoW). b. Definition of grassland and planting specifications (species mixes) to be established within the Scheme. c. Protection measures for retained trees and hedgerows. d. Method of implementation for planting and grassland. e. Maintenance and monitoring requirements for planting within the five-year contract period (the establishment period). f. Prescriptions for the long term management of planting.	Yes	To ensure all landscaping is undertaken in accordance with best practice and achieves its intended function.	The successful establishment of all planting and seeding areas. The LCoW will oversee planting and undertake inspections during the establishment period. Following this period, the long term management, maintenance and monitoring of the soft estate will pass to Highways England.	Sign off of the LEMP by the Secretary of State in consultation with the relevant local authorities. Implementation of the measures within the LEMP by the ECoW.	Contractual requirement between Highways England and the Principal Contractor. First Iteration EMP **[TR010044/APP/6.8]**. DCO Requirement 3 **[TR010044/APP/3.1]**. DCO Requirement 6 **[TR010044/APP/3.1]**.	Principal Contractor
ESS – LV2	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/6.8]**	Maintaining well-managed and tidy construction working areas and site compounds to minimise their visual impact and appearance in the landscape, for example: a. Ensuring that materials are delivered on an ‘as and when’ basis, to minimise the potential for stockpiling and associated visual impact. b. Stockpiling of top soil and plastic wet soil no higher than 2 metres in order to reduce their visual impact. Site management within construction compounds and working areas would be undertaken in accordance with the First Iteration EMP **[TR010044/APP/6.8]**.	No	Minimise visual impacts associated with construction of the Scheme.	Impacts on visual amenity.	Layouts of construction compounds to meet the objectives contained within the First Iteration EMP **[TR010044/APP/6.8]**.	Contractual requirement between Highways England and the Principal Contractor. First Iteration EMP **[TR010044/APP/6.8]**. DCO Requirement 3 **[TR010044/APP/3.1]**.	Principal Contractor
ESS – LV3	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/6.8]** Appendix 7.5 **[TR010044/APP/6.3]**	The retention and protection of trees in proximity to construction working areas, to avoid damage to existing vegetation.	No	Minimise visual impacts of the Scheme during construction.	Impacts on visual amenity.	Protective measures to meet the objectives contained within the First Iteration EMP **[TR010044/APP/6.8]** and details contained in Appendix 7.5 of the Environmental Statement **[TR010044/APP/6.3]**.	Contractual requirement between Highways England and the Principal Contractor. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
ESS – LV4	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/6.8]**	Finishing site offices and facilities within the main project compound (located at Wintringham) in a recessive colour to blend into the local landscape and immediate surroundings.	No	Minimise visual impacts of the Scheme during construction.	Impacts on visual amenity.	Measures to meet the objectives contained within the First Iteration EMP **[TR010044/APP/6.8]**.	Contractual requirement between Highways England and the Principal Contractor. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
ESS – LV5	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/6.8]**	Keeping construction lighting to the minimum luminosity necessary for safe working within construction compounds and working areas and where possible, fitting it with motion sensors to minimise the duration of potential light spill in night time views.	No	Minimise potential light spill during construction of the Scheme.	Impacts on visual amenity.	Lighting measures to meet the objectives contained within the First Iteration EMP **[TR010044/APP/6.8]**.	Contractual requirement between Highways England and the Principal Contractor. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
ESS – LV6	Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]** First Iteration EMP **[TR010044/APP/6.8]** DCO Requirement 6 **[TR010044/APP/3.1]**	A detailed plan for the establishment and maintenance of planting and hedgerows within the contract period will be developed by the Principal Contractor based on the principles and outline prescriptions presented in LEMP contained in the First Iteration EMP **[TR010044/APP/6.8]**. The Principal Contractor will maintain and manage all landscaping within the Scheme during the five-year contract period, as secured by Requirement 6 of the DCO **[TR01004/APP/3.1]**.	Yes	To ensure all landscaping is undertaken in accordance with best practice and achieves its intended function.	Impacts on landscape character and visual amenity.	Monitoring during the establishment period would be undertaken in accordance with the measures set out within the Second Iteration EMP, the content of which would be based on the measures contained in the LEMP within the First Iteration EMP **[TR010044/APP/6.8]**.	DCO Requirement 6 **[TR010044/APP/3.1]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
ESS – LV7	Chapter 7 Landscape and visual effects **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/6.8]**	During Year 15, a monitoring visit would be made by Highways England to each viewpoint identified within the landscape and visual impact assessment predicted to experience significant visual effects to ensure that the planting has established and is delivering its intended screening and integration objectives. Should the landscape planting be found not to have established as intended or be insufficient to provide the required level of screening and integration, remedial works would be undertaken as necessary.	Yes	To monitor that significant adverse visual effects associated with the Scheme.	Impacts on visual amenity.	Successful establishment of all planting at viewpoints identified in the assessment as likely to experience significant effects.	First Iteration EMP **[TR010044/APP/6.8]**.	Highways England
Enhancement measures								
		None identified.						

Table 4: Biodiversity

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
Embedded mitigation								
EMB – B1	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The total area of land within the Order Limits has been limited to that required to construct, operate and maintain the Scheme.	No	To minimise the loss of existing habitats.	Effects on terrestrial and aquatic habitats.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**.	Principal Contractor
EMB – B2	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 3 Assessment of alternatives **[TR010044/APP/6.1]**	Optimisation of the horizontal alignment of the new dual carriageway during the design-development process.	No	To avoid impacts on notable and valued features of biodiversity value – for example a veteran Elm tree located to the north of Hen Brook, and veteran trees at Croxton Park registered park and garden.	Effects on terrestrial habitats.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**.	Principal Contractor
EMB – B3	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	The retention of existing habitats within the Order Limits of the Scheme, where practicable.	No	To minimise the loss of existing habitats as a result of the Scheme.	Effects on terrestrial and aquatic habitats.	N/A	Measures would be secured through: Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**.	Principal Contractor
EMB – B4	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	The planting of woodland and woodland edge species along sections of the new dual carriageway.	Yes	[redacted]	[redacted]	The successful establishment of all planted areas. Maintenance and monitoring of all planted areas during the contract period (five years).	Measures would be secured through: Requirement 6 of the DCO **[TR010044/APP/3.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
				To minimise the risk of mortality to Barn Owl from traffic collisions. To provide habitat for terrestrial invertebrates.				
EMB – B5	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	The planting of shrubs and scrub along sections of the new dual carriageway.	Yes	To provide replacement foraging, roosting and breeding habitat for birds in the summer months. To provide foraging and roosting habitat for birds in the winter months. To provide cover and protection for Common Lizard and Grass Snake. [redacted] To provide habitat for terrestrial invertebrates.	[redacted]	The successful establishment of all planted areas. Maintenance and monitoring of all planted areas during the contract period (five years).	Measures would be secured through: Requirement 6 of the DCO **[TR010044/APP/3.1]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
EMB – B6	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	The planting of hedgerows along sections of the new dual carriageway.	Yes	To reconnect existing hedgerows that would be fragmented by the Scheme and those lost to the Scheme. To link existing and new woodland. To provide additional foraging	[redacted]	The successful establishment of all planted areas. Maintenance and monitoring of all planted areas during the contract period (five years).	Measures would be secured through: Requirement 6 of the DCO **[TR010044/APP/3.1]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
				[redacted]				
EMB – B7	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	The creation of grassland habitats on earthwork cutting and embankment slopes, and on road verges.	Yes	To replace existing habitats lost to the Scheme. To provide foraging and refuge habitat for birds, reptiles and amphibians. To provide habitats for insects and other invertebrates, and encourage colonisation. To provide cover and protection for Common Lizard and Grass Snake.	Effects on terrestrial invertebrates and habitats, and on birds, reptiles and amphibians. Effects in Common Lizard and Grass Snake.	The successful establishment of all seeded areas. Maintenance and monitoring of all seeded areas during the contract period (five years).	Measures would be secured through: Requirement 6 of the DCO **[TR010044/APP/3.1]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
EMB – B8	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	The creation of new wet ponds within the Order Limits (with associated marginal and wetland planting). Ponds would be profiled to achieve gentle sloping sides to allow native vegetation cover to develop around the pond edge. New ponds would not be stocked with fish which are inimical to amphibians.	No	To create habitat for Great Crested Newt and aquatic invertebrates.	Effects on aquatic invertebrate habitats and species. Effects on Great Crested Newt.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**.	Principal Contractor
EMB – B9	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental	The installation of mammal ledges within the following structures within the design of the Scheme: a. Begwary Brook Culvert (Roxton Link Road). b. South Brook Existing (A1). c. South Brook Proposed (Roxton Link Road). d. Alington Top Farm.	No	[redacted]	[redacted]	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
	Masterplan **[TR010044/APP/6.2]**	e. Hen Brook. f. Cambridge Road (east) (Wintringham Brook Tributary). g. Cambridge Road (Wintringham Brook Tributary). h. Gallow Brook. i. Pillar Plantation (West Brook).		severed by the Scheme.			Engineering Section Drawings **[TR010044/APP/2.10]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	
EMB – B10	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	[redacted]	Yes	[redacted]	[redacted].	Monitoring surveys undertaken in accordance with the methods and timings set out in the Biodiversity Management Plan within the First Iteration EMP **[TR010044/APP/6.8]**. Implementation and sign off by the ECoW.	Measures would be secured through: Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
EMB – B11	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	The creation of a network of wetland habitats, including ephemeral wetland habitat, reedbeds and wet grassland within the Scheme.	No	To mitigate for the loss of field ponds to the Scheme, and their associated invertebrate fauna.	Effects on aquatic and wetland habitats.	N/A	Measures would be secured through: Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**.	Principal Contractor
EMB – B12	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	Confining road lighting introduced as part of the Scheme to new and improved sections of road where road safety is a priority.	No	[redacted]	[redacted]	N/A	Measures would be secured through: Requirement 17 of the DCO. The General Arrangement Plans **[TR010044/APP/2.4]**.	Principal Contractor
EMB – B13	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Provision of planting within the planting strategy of the Scheme at known bat activity hotspots and flyways.	No	To replace and reinstate navigational cues adjacent to the Scheme.	[redacted]	N/A	Measures would be secured through: Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
	Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**			[redacted]				
EMB – B14	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	[redacted]	Yes	[redacted] To prevent otter being able to pass through the fence and onto the new dual carriageway once operational. To minimise the risk of deer and other mammals crossing the new dual carriageway once operational. [redacted] To minimise the risk of mortality to Barn Owl from traffic collisions.	Effects on mammals (mortality).	Fencing to be approved by competent ecologist. Annual checks to monitor state of fencing and check for breaches in the fence. Monitoring surveys undertaken in accordance with the methods and timings set out in the Biodiversity Management Plan within the First Iteration EMP **[TR010044/APP/6.8]**. Implementation and sign off by the ECoW.	Measures would be secured through: Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
EMB – B15	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental	[redacted]	No	[redacted]	[redacted].	N/A	[redacted]	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
	Masterplan **[TR010044/APP/6.2]**							
EMB – B16	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	[redacted]	No	[redacted]	[redacted]	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**.	Principal Contractor
EMB – B17	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	[redacted]	No	[redacted]	[redacted]	[redacted]/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**. The General Arrangement Plans **[TR010044/APP/2.4]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**.	Principal Contractor
Essential mitigation								
ESS – B1	**Chapter 8 Biodiversity [TR010044/APP/6.1]**	The Principal Contractor will develop and implement a Biodiversity Management Plan (BMP) based upon the outline BMP in the First Iteration EMP **[TR010044/APP/6.8]**.	Yes	To ensure legal compliance, update information on species within	Effects on terrestrial and aquatic habitats and species.	Implementation of the BMP.	Contractual requirement between Highways England and the Principal Contractor.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
	First Iteration EMP **[TR010044/APP/6.8]**	The BMP will include, but not be limited to, the following surveys and measures: a. General responsibilities for the Principal Contractor and the ECoW (including the supervision of works). b. Pre-construction surveys for habitats and species (including licensing requirements). c. General biodiversity control and protection measures to be implemented during construction of the Scheme. d. Specific measures to be implemented during construction for protected, priority notable, and scheduled species. e. Emergency reporting details. f. Management and maintenance requirements for habitats within the contract period. g. Details of monitoring (including frequency, reporting and responsibilities). The BMP will also contain specifications for the design of mitigation measures and method statements for specific working practices, where appropriate.		the Order Limits, and mitigate biodiversity effects.	Assessment assumes the identified mitigation and monitoring measures will be implemented prior to, and during, the construction phase as necessary.	ECoW will undertake regular inspections of the mitigation measures, supervise the works and oversee licensing matters and monitoring.	First Iteration EMP **[TR010044/APP/6.8]**. DCO Requirement 3 **[TR010044/APP/3.1]**. DCO Requirement 10 **[TR010044/APP/3.1]**.	
ESS – B2	Biodiversity Pre-Commencement Plan **[TR010044/APP/6.13]**	The Principal Contractor will develop and implement the Biodiversity Pre-Commencement Plan **[TR010044/APP/6.13]**, which is secured through Requirement 20 of the DCO **[TR010044/APP/3.1]**.	Yes	To ensure legal compliance with biodiversity specific legislation for all pre-commencement works proposed within the Order Limits.	The implementation of preliminary works surveys and checks required to be undertaken by the Principal Contractor.	Implementation of the Biodiversity Pre-Commencement Plan. Site clearance or demolition works will not be carried out on any area until the ECoW has confirmed that there are no biodiversity constraints to undertaking the works.	Contractual requirement between Highways England and the Principal Contractor. Biodiversity Pre-Commencement Plan **[TR010044/APP/6.13]**. DCO Requirement 20 **[TR010044/APP/3.1]**.	Principal Contractor
Enhancement measures								
ENH – B1	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	Subject to agreement, the installation of Barn Owl boxes outside of the Order Limits. The exact location of additional boxes would depend on land ownership, but boxes would be provided (either mounted on a pole adjacent to existing trees or on retained trees) and located sufficiently far from construction activities to provide alternative roosting and/or nesting sites.	No	To reduce the risk of mortality to Barn Owl during operation of the Scheme.	Effects on Barn Owl.	N/A	Measures would be delivered by agreement with landowners.	Highways England Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
		The boxes would face open ground and be sited on a mature tree where the box is visible to any passing owl. Where this is not possible, boxes erected on poles offer a suitable alternative solution.						
ENH – B2	Chapter 8 Biodiversity **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	Subject to agreement, the installation of six artificial Hobby nests outside of the Order Limits. The exact location of artificial nests would depend on land ownership, but the artificial nests would be located within the Hobby's home range, but sufficiently away from the Scheme so that there is no disturbance from construction or operational activities of the Scheme. The artificial nest sites would need to be located: a. Within the Hobby's home range (which can be as large as 3 – 6.5km) (1.8 – 4 miles). b. Away from other breeding Hobby in the wider area. c. Within 1km (0.6 miles) of current nest sites. d. Prior to construction commencing. e. More than 300m from the Scheme, to avoid disturbance from construction and operation. f. As close as possible to the present nest site within the home range. g. Within a woodland edge in a mature hedgerow.	No	To reduce the risk of mortality to Hobby during operation of the Scheme.	Effects on Hobby.	N/A	Measures would be delivered by agreement with landowners.	Highways England Principal Contractor

Table 5: Geology and soils

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
Embedded mitigation								
EMB – GS1	Chapter 9 Geology and soils **[TR010044/APP/6.1]** Chapter 3 Assessment of alternatives **[TR010044/APP/6.1]**	Modifications made to the horizontal alignment of the new dual carriageway during the design-development process.	No	To minimise the potential for interaction with, and disturbance of, known contaminated land.	Effects on, and from, contaminated land.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**.	Principal Contractor
EMB – GS2	Chapter 9 Geology and soils **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The total area of land within the Order Limits has been limited to that required to construct, operate and maintain the Scheme.	No	To minimise the permanent loss of best and most versatile agricultural soils.	Effects on soils.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1].** The Works Plans **[TR010044/APP/2.3]**.	Principal Contractor
EMB – GS3	Chapter 9 Geology and soils **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Incorporation of drainage solutions and the grading of cut and fill slopes within the design to a maximum of 1 in 3 gradients.	No	To reduce the susceptibility of earthwork slopes to erosion.	Effects on ground stability and soils.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**.	Principal Contractor
Essential mitigation								
ESS – GS1	Chapter 9 Geology and soils **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/3.1]**	The Principal Contractor will implement the requirements for soil reinstatement, monitoring, and aftercare as detailed in the outline Soil Management and Handling Plan presented in the First Iteration EMP **[TR010044/APP/6.8]**. Measures will include, but not be limited to: a. Inspections of land to ensure soil health.	Yes	To protect and limit the impact to soils and agricultural land, ensure agricultural soil capability is reinstated and to	The assessment assumes the measures set out within the plan are adopted as best practice.	Production of the Soil Management and Handling Plan. Undertake monitoring of agricultural soil capability within the contract period.	Contractual requirement between Highways England and the Principal Contractor. DCO Requirement 3 **[TR010044/APP/3.1]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
		b. Site preparation in advance of soil stripping. c. Chemical analysis of soils in advance of soil stripping. d. Treatment of contaminated soil and non-contaminated soil. e. Soil stockpile management. f. Soil restoration. g. Monitoring of agricultural soil capability.		monitor significant effects.			First Iteration EMP **[TR010044/APP/3.1]**.	
ESS – GS2	Chapter 9 Geology and soils **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/3.1]**	The Principal Contractor will implement the requirements for treatment of contaminated land as detailed in the outline Contaminated Land Management Plan presented in the First Iteration EMP **[TR010044/APP/6.8]**. Measures will include, but not be limited to: a. The actions to be taken should unexpected contaminated material be encountered. b. Temporary storage of contaminated land. c. Reuse of contaminated land where possible. d. Protective measures to ensure contamination pathways are removed, including those into ground and surface water bodies.	Yes	To limit the impact of contaminated land on uncontaminated soils and agricultural land, and to monitor the potential for ground gases (where contaminated materials have been, or are to be, disturbed).	The assessment assumes the measures set out within the plans are adopted as best practice.	Production of the Contaminated Land Management Plan. Undertaking monitoring of ground gases, where required, during construction.	Contractual requirement between Highways England and the Principal Contractor. DCO Requirement 3 **[TR010044/APP/3.1]**. DCO Requirement 8 **[TR010044/APP/3.1]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
ESS – GS3	Chapter 9 Geology and soils **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/3.1]**	The Principal Contractor will implement the requirements for limiting water runoff from cuttings and borrow pits as detailed in the Outline Water Management Plan as presented in the First Iteration EMP **[TR010044/APP/6.8]**. Measures will include, but not be limited to: a. Management of construction activities with potential to cause accidental spillages/runoff. b. Management of potential impacts on controlled waters and pollution control for groundwater and surface water. c. The provision of adequate fuel/chemical storage facilities, such as bunded tanks, hardstanding and associated emergency response/spillage control procedures d. The refueling of vehicles in demarcated areas on impermeable surfaces. e. The appropriate storage and use of chemicals and temporary storage of suspected/potentially contaminative materials in local storage bund. f. The management of activities within floodplains in the area of River Great Ouse, Stone Brook, Hen Brook, and South Brook (i.e. kept to a minimum).	Yes	To protect receiving waters by reducing the quantity and quality of water being released as a result of cuttings and borrow pits.	The assessment assumes the measures set out within the plans are adopted as best practice.	Production of the Surface Water Management Plan.	Contractual requirement between Highways England and the Principal Contractor. DCO Requirement 3 **[TR010044/APP/3.1]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
		g. Temporary land take required for construction to be located out of the floodplain as far as reasonably practicable or allowances made for floodplain control measures and contingency actions. h. The management of water removed from excavations such as cuttings and borrow pits for construction dewatering activities. i. The management of the risk of groundwater flooding through appropriate working practices (during excavations).						
Enhancement measures								
		None identified.						

Table 6: Materials and waste

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
Embedded mitigation								
EMB – MW1	Chapter 10 Material assets and waste **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Designing the Scheme to facilitate the reuse of acceptable material arisings (for example those associated with earthworks cuttings and other excavations).	No	To recycle existing materials, and to reduce on-site waste arisings.	Effects relating to the generation of on-site waste and its disposal.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1].** The Works Plans **[TR010044/APP/2.3].** The General Arrangement Plans **[TR010044/APP/2.4].** First Iteration EMP **[TR010044/APP/6.8].**	Principal Contractor
EMB – MW2	Chapter 10 Material assets and waste **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Achieving an earthworks balance (cut and fill material) within the design of the Scheme, where possible.	No	To minimise the need to import and export material.	Effects relating to the generation of on-site waste and its disposal.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO [TR010044/APP/3.1]. The Works Plans **[TR010044/APP/2.3].** The General Arrangement Plans **[TR010044/APP/2.4].** First Iteration EMP **[TR010044/APP/6.8]**	Principal Contractor
EMB – MW3	Chapter 10 Material assets and waste **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Inclusion of borrow pits within the Order Limits of the Scheme.	No	To obtain materials local to the Scheme and minimise the need to import and export material.	Effects relating to consumption of materials and products and the generation and disposal of on-site waste.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1].** The Works Plans **[TR010044/APP/2.3].**	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
							The General Arrangement Plans **[TR010044/APP/2.4].**	
EMB – MW4	Chapter 10 Material assets and waste **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Inclusion of land within the Order Limits of the Scheme for the temporary on-site storage of soils, excavated materials and other construction materials.	No	To enable appropriate segregation and storage of materials and waste, reduce wastage and facilitate the reuse of materials on-site.	Effects relating to the generation of on-site waste and its disposal.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1].** The Works Plans **[TR010044/APP/2.3].** The General Arrangement Plans **[TR010044/APP/2.4].**	Principal Contractor
EMB – MW5	Chapter 10 Material assets and waste **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Appropriate sizing of the main site compounds, satellite construction compounds and storage areas within the Scheme design.	No	To enable appropriate segregation and storage of waste, and to facilitate off-site recovery.	Effects relating to the generation of on-site waste and its disposal.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1].** The Works Plans **[TR010044/APP/2.3]**. The General Arrangement Plans **[TR010044/APP/2.4].**	Principal Contractor
EMB – MW6	Chapter 10 Material assets and waste **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Retention of existing highways infrastructure within the Scheme design where feasible (for example sections of the existing A428 and existing side roads).	No	To minimise the need for the demolition of components and infrastructure, and to reduce associated on-site waste arisings.	Effects relating to the generation of on-site waste and its disposal.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. The De-Trunking Plans **[TR010044/APP/2.5]**. The Streets, Rights of Way and Access Plans **[TR010044/APP/2.6]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
EMB – MW7	Chapter 10 Material assets and waste **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Reuse of excavated materials and the recycling of demolition and construction materials within the Scheme.	Yes	To recycle existing materials, reduce dependency on primary material resources, and to reduce on-site waste arisings.	Effects relating to consumption of materials and products and the generation and disposal of on-site waste.	Materials use would be monitored and recorded through the classification, tracking and storage measures set out in the Materials Management Plan contained in the First Iteration EMP **[TR010044/APP/6.8]**.	Measures would be secured through: First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
EMB – MW8	Chapter 10 Material assets and waste **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Chapter 3 Assessment of alternatives **[TR010044/APP/6.1]**	Optimisation of junction designs (for example Black Cat junction) within the Scheme to reduce the height of retaining walls and pile lengths.	No	To reduce the associated materials requirements of the Scheme.	Effects relating to consumption of materials and products.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**.	Principal Contractor
EMB – MW9	Chapter 10 Material assets and waste **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Chapter 3 Assessment of alternatives **[TR010044/APP/6.1]**	Optimisation of bridge, underpass and culvert designs through the incorporation of precast concrete elements into the design of the Scheme.	No	To reduce the associated materials requirements of the Scheme, and to reduce on-site waste arisings.	Effects relating to consumption of materials and products and the generation and disposal of on-site waste.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**.	Principal Contractor
EMB – MW10	Chapter 10 Material assets and waste **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Construction methodology for the Scheme includes for the importation of alternative (recycled and secondary) aggregate materials during construction, where practicable.	Yes	To reduce dependency on primary material resources.	Effects relating to consumption of materials and products.	Materials use would be monitored and recorded through the classification, tracking and storage measures set out in the Materials Management Plan contained in the First	Measures would be secured through: First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
						Iteration EMP **[TR010044/APP/6.8]**.		
Essential mitigation								
ESS – MW1	Chapter 10 Material assets and waste **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/6.8]**	The Principal Contractor will implement the requirements for construction waste identification, handling, management, recovery and disposal as detailed in the outline Materials Management Plan presented in the First Iteration EMP **[TR010044/APP/6.8]**. Measures and information will include, but not be limited to: a. Those responsible for producing the plan. b. Key Performance Indicators for waste recycling and recovery. c. Best practice measures. d. Estimates of waste material quantities and types. e. Details relating to construction of the Scheme (in relation to managing and recording waste). f. Requirements for obtaining environmental permits and consents.	Yes	To manage waste arising from construction of the Scheme, monitor its performance, and achieve compliance with relevant permits and consents.	Effects associated with the generation and disposal of waste. The assessment assumes the measures set out within the plans are adopted as best practice.	Production of the Waste Management Plan and associated monitoring.	Contractual requirement between Highways England and the Principal Contractor. DCO Requirement 3 **[TR010044/APP/3.1]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
ESS – MW2	Chapter 10 Material assets and waste **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/6.8]**	The Principal Contractor will implement the requirements for the identification, quantification and management of construction materials as detailed in the outline Materials Management Plan presented in the First Iteration EMP **[TR010044/APP/6.8]**. Measures and information will include, but not be limited to: a. Those responsible for producing the plan. b. Materials classification. c. Tracking and storage of materials and their movement. d. Requirement for the remediation and disposal of materials. e. Reporting requirements.	Yes	To track and monitor the movement of materials and (where necessary) test materials requiring remedial treatment.	Effects associated with the consumption of materials. The assessment assumes the measures set out within the plans are adopted as best practice.	Production of the Materials Management Plan and associated monitoring.	Contractual requirement between Highways England and the Principal Contractor. DCO Requirement 3 **[TR010044/APP/3.1]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
Enhancement measures								
ENH – MW1	Chapter 10 Material assets and waste **[TR010044/APP/6.1]**	Implementation of enhancement measures for material assets, where feasible, should opportunities arise during the detailed design stage and during the construction phase of the Scheme.	No	To implement enhancement measures which may become available during the detailed design and construction stages.	Assumption that enhancement measures may become available to implement, where feasible.	Further enhancement to the management of material assets.	More efficient management of material assets.	Principal Contractor

Table 7: Noise and vibration

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
Embedded mitigation								
EMB – NV1	Chapter 11 Noise and vibration **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The positioning of sections of the new dual carriageway below existing ground level within earthwork cuttings.	No	To contain road traffic noise and reduce effects on noise sensitive receptors in proximity to the earthwork cuttings.	Reduction in noise associated with the movement of road traffic on the new dual carriageway.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**. The General Arrangement Plans **[TR010044/APP/2.4]**.	Principal Contractor
EMB – NV2	Chapter 11 Noise and vibration **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	Low noise surfacing would be installed on the following roads and junctions within the Scheme: a. Along the entire length of the new dual carriageway, from its tie in with the existing A421 through to the tie in with the existing A428 dual carriageway east of Caxton Gibbet junction. b. On the A1 (ground -1) through Black Cat junction. c. Black Cat junction. d. Cambridge Road junction. e. Eltisley link. f. Realigned A428. Caxton Gibbet junction.	No	To reduce road traffic noise at source.	The use of a thin surface coarse system would offer up to a 3.5 dB(A) reduction in noise associated with the movement of road traffic on the new dual carriageway, when compared to the use of hot rolled asphalt.	N/A	Measures would be secured through: Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**.	Principal Contractor
EMB – NV3	Chapter 11 Noise and vibration **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan [TR010044/APP/6.2]	Earth bunds of a maximum 3m height would be formed adjacent to the new dual carriageway at the following locations, as illustrated on Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**: a. Along either side of the new dual carriageway between its tie in point with the existing A421 and the Roxton Road bridge (approximately Chainage 1100). b. Along either side of the new dual carriageway from north of the Top Farm accommodation bridge (approximate Chainage 6250) to the new B1046 bridge (approximately Chainage 7000).	No	To contain road traffic noise and reduce effects on noise sensitive receptors at the following noise sensitive locations: a. Properties at Roxton. b. Parker's Farm, Rectory Farm and other	Reduction in noise associated with the movement of road traffic on the new dual carriageway.	N/A	Measures would be secured through: Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
				nearby properties.				
Essential mitigation								
ESS – NV1	Chapter 11 Noise and vibration **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/6.8]**	The Principal Contractor will develop and implement a Noise Management Plan (NMP) based upon the outline NMP in the First Iteration EMP **[TR010044/APP/6.8]**, which will detail the management and monitoring processes to be introduced across all construction sites and compounds. The Plan will adopt a range of industry standard good practice construction phase dust mitigation and monitoring measures, and general control measures, including but not limited to, the following: a. Integration of noise control measures into the preparation of all method statements for the works. b. Details and locations of all site hoardings, screens or bunds that would provide acoustic screening during construction. c. Procedures for the installation of noise insulation (if deemed to be required) or provision of temporary re-housing (if deemed required) and to ensure such measures are in place as early as reasonably practicable. d. Noise and vibration monitoring protocols including monitoring locations, stages during construction at which monitoring would be undertaken, and methods of publishing the results. e. Details of inspection and maintenance schedules to be undertaken. Processes to ensure ongoing compliance with all controls and consent for the works. f. Process for implementing corrective actions that may be required to avoid or address a potential non-compliance.	Yes (if agreed with Local Authorities)	To ensure that the effects of noise are controlled, and that the measures for controlling noise are implemented accordingly.	Effects on sensitive receptors. Assessment assumes good practice mitigation and monitoring measures will be followed during the construction phase.	If required, the Principal Contractor will carry out noise monitoring surveys during the construction period. Monitoring requirements will be agreed with the applicable local authorities.	Contractual requirement between Highways England and the Principal Contractor. First Iteration EMP **[TR010044/APP/6.8]**. DCO Requirement 3 **[TR010044/APP/3.1]**.	Principal Contractor
ESS – NV2	Chapter 11 Noise and vibration **[TR010044/APP/6.1]**	Principal Contractors to appoint a Community Relations Manager (CRM) responsible for leading engagement with affected communities. Appropriate mechanisms to communicate with local residents would be set up to highlight potential periods of disruption.	Yes	Example of application of Best Practicable Means to minimise construction impacts	n/a	Seek feedback on the engagement to ensure that best practice measures are being employed at all times.	Contractual requirement between Highways England and the Principal Contractor. DCO Requirement 3 **[TR010044/APP/3.1]** First Iteration EMP **[TR010044/APP/6.8]**	Principal Contractor
ESS – NV3	Chapter 11 Noise and vibration **[TR010044/APP/6.1]**	The Scheme will comply with the working hours as specified within Requirement 19 of the DCO **[TR010044/APP/3.1]**.	No	To ensure working hours for surface construction works are defined, but with an opportunity to vary these with the agreement of	These working hours are as set within the ES.	n/a	DCO Requirement 19 **[TR010044/APP/3.1]**	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
				the applicable local authority.				
ESS – NV4	Chapter 11 Noise and vibration **[TR010044/APP/6.1]**	Monitoring would be undertaken during the Scheme construction stage to ensure that the mitigation measures and procedures set out within the Outline NMP as presented in the First Iteration EMP **[TR010044/APP/6.8]** are being appropriately implemented.	Yes	To identify if the mitigation proposed is adequate and if construction related noise exceedances require further mitigation to reduce overall impact.	The assessment assumes that monitoring will be undertaken.	If required, the Principal Contractor will carry out noise monitoring surveys during the construction period. Monitoring requirements will be agreed with the applicable local authorities.	DCO Requirement 3 **[TR010044/APP/3.1]** First Iteration EMP **[TR010044/APP/6.8]**	Principal Contractor
Enhancement measures								
		None identified.						

Table 8: Population and human health

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
Embedded mitigation								
EMB – PH1	Chapter 12 Population and human health **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Earthwork slopes along the new dual carriageway have predominantly been designed to slope gradients of 1 in 3.	No	To minimise the extent of permanent landtake within agricultural holdings.	Effects on the operation and future viability of agricultural holdings.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**.	Principal Contractor
EMB – PH2	Chapter 12 Population and human health **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Incorporation of severed and/or inaccessible land parcels into the Order Limits, where appropriate and reasonably practicable.	No	To reduce the effects of the Scheme on existing agricultural operations and ensure fields are of a form and size that enables them to remain viable to farm.	Effects on the operation and future viability of agricultural holdings.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**.	Principal Contractor
EMB – PH3	Chapter 12 Population and human health **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**	Reinstatement of agricultural field boundaries using fencing and/or hedgerows where components of the Scheme would sever established boundaries.	No	To demarcate the highway boundary and reinstate the boundaries of agricultural fields severed by the Scheme.	Effects on the operation and future viability of agricultural holdings.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]** First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
EMB – PH4	Chapter 12 Population and human health **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Provision of accommodation works and PMAs within the design for agricultural land holdings and commercial premises affected by the Scheme.	No	To enable continued access where existing arrangements would be severed or lost as a consequence of the Scheme.	Effects on the operation and future viability of agricultural holdings and businesses.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. The General Arrangement Plans **[TR010044/APP/2.4]**. The Streets, Rights of Way and Access Plans **[TR010044/APP/2.6]**.	Principal Contractor
EMB – PH5	Chapter 12 Population and human health **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Inclusion of the following measures into the design of the Scheme: a. Barriers. b. Lay-bys (including emergency telephones). c. CCTV. d. VMS.	No	To improve safety for WCH travelling on the new dual carriageway.	Effects on WCH and motorised user journeys, amenity, safety and accessibility.	N/A	Measures would be secured through: The development of the preliminary design into a detailed design within Requirement 12 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. The General Arrangement Plans **[TR010044/APP/2.4]**	Principal Contractor
EMB – PH6	Chapter 12 Population and human health **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Provision of PRoW to replace and, where feasible, improve the following footpaths and bridleways: a. Footpath A10. b. Footpath 7. c. Footpath 8. d. Footpath 1/9. e. Footpath 1/16. f. Footpath 1/17. g. Footpath 1/20. h. Footpath 59/1 to 278/7.	No	To enable WCH to continue to make journeys on PRoW severed by the Scheme, and ensure continued connectivity is provided for WCH between communities and routes within the wider PRoW network.	Effects on WCH user journeys, amenity and accessibility, and effects associated with community severance.	N/A	Measures would be secured through: Schedule 4 of the DCO containing details of permanent PRoW diversions **[TR010044/APP/3.1]**. The General Arrangement Plans **[TR010044/APP/2.4]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
		i. Bridleway 1/18. j. Bridleway 74/6.					The Streets, Rights of Way and Access Plans **[TR010044/APP/2.6].**	
EMB – PH7	Chapter 12 Population and human health **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Re-designation of School Lane (east of Roxton) to a bridleway.	No	To maintain connectivity for WCH who currently use School Lane with the Kelpie Marina access road.	Effects on WCH user journeys, amenity and accessibility, and effects associated with community severance.	N/A	Measures would be secured through: Schedule 4 of the DCO containing WCH provision **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. The General Arrangement Plans **[TR010044/APP/2.4]**. The Streets, Rights of Way and Access Plans **[TR010044/APP/2.6]**. Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**.	Principal Contractor
EMB – PH8	Chapter 12 Population and human health **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Provision of new footways within the verges of the following roads and junctions: a. Roxton Road link (north). b. Roxton Road link (south). c. BP filling station service road. d. Kelpie Marina access road. e. Cambridge Road junction (including sections of the realigned A428). f. Realigned Toseland Road. g. Eltisley link (including sections of the realigned A428). h. Caxton Gibbet junction.	No	To replace footways severed or lost to the Scheme.	Effects on pedestrian and cyclist journeys, amenity and accessibility, and effects associated with community severance.	N/A	Measures would be secured through: Schedule 4 of the DCO containing WCH provision **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. The General Arrangement Plans **[TR010044/APP/2.4]**. The Streets, Rights of Way and Access Plans **[TR010044/APP/2.6]**. Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
Essential mitigation								
ESS – PH1	Chapter 12 Population and human health **[TR010044/APP/6.1]** Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**	The Principal Contractor will implement the traffic management measures, carriageway restrictions, carriageway closures and diversions described in the Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**. In relation to accessibility: a. Should local traffic need to access private property in Croxton or Eltisley, or Whitehall Industrial Estate using the existing A428 when the road is closed, a system will be put in place which will enable local traffic access; for example, by implementing a construction vehicle service that will guide public vehicles through the construction works. b. To ensure access is retained for employees of Eltisley Manor care home (Nouvita Healthcare) working night shifts, or new patients who may require admission during night hours, the Principal Contractor will implement an appropriate system for local traffic to access the facility. The Principal Contractor will undertake construction works at off-peak times, where feasible, and will provide temporary access to community facilities for local traffic (if and where required).	No	To ensure the safety of road users as they approach, and travel through, sections of the existing A428 and other routes affected by roadworks. To minimise the health and safety risks to the local community. To minimise disruption to road users, local businesses, communities and community facilities.	The assessment assumes the implementation of appropriate traffic management measures during construction.	Implementation of the Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**. Prior engagement and agreement of the measures with the relevant local authorities and affected parties. Clear communication will be established with the care home at an early stage to adequately inform them of any operations or traffic measures that may affect routes used for transporting residents and staff.	Contractual requirement between Highways England and the Principal Contractor. Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**. DCO Requirement 11 **[TR010044/APP/3.1]**.	Principal Contractor
ESS – PH2	Chapter 12 Population and human health **[TR010044/APP/6.1]** Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**	The Principal Contractor will implement temporary public rights of way (PRoW) diversion routes and works crossings based on the principles described in the Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**. In locations where construction works are in proximity to PRoW, the Principal Contractor will fence off works areas using temporary fencing panels to segregate the site work areas from the public. Where these construction works areas sever PRoW, the Principal Contractor will consult and agree how to manage these routes with the appropriate local authority. Where practical and feasible, a local diversion route via an adjacent PRoW, or locally around the perimeter of the fenced work site, will be identified by the Principal Contractor and temporary signage erected to direct the public around these routes. If a short duration closure of a footpath is required and no local diversion can be provided, then appropriate signage will be erected by the Principal Contractor at the extent of the footpath closure, to ensure that the public are informed of the closure.	No	To maintain connectivity of existing routes used by walkers, cyclists and horse riders where possible, and protect users from construction works	The assessment assumes the implementation of appropriate measures for diversion, segregation and closure of existing routes during construction.	Implementation of the Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**. Prior engagement and agreement of the measures with the relevant local authorities.	Contractual requirement between Highways England and the Principal Contractor. Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**. DCO Requirement 11 **[TR010044/APP/3.1]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
ESS – PH3	Chapter 12 Population and human health **[TR010044/APP/6.1]** Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**	In relation to construction of the River Great Ouse viaduct, the Principal Contractor will review and implement traffic management and the phasing of the works in line with the principles contained in the Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**. Works will not be carried out for more than 24 hours and the public will be notified in advance by the Principal Contractor. Works will not be continuous, although closures will largely be undertaken during weekdays in the daytime with measures put in place to ensure that the river can be reopened outside of working hours. There will be no closures of the River Great Ouse during the weekend(s) of the Bedford River Festival (typically held bi-annually in late July).	No	To minimize effects on navigation and recreational uses along the stretch of the river associated with the viaduct, avoid conflicts with events on the river, and keep the public informed of the works.	The assessment assumes the implementation of appropriate notifications and timing of works during construction.	Implementation of the Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**.	Contractual agreement between Highways England and the Principal Contractor. Outline Construction Traffic Management Plan **[TR010044/APP/7.4]**. DCO Requirement 11 **[TR010044/APP/3.1]**.	Principal Contractor
Enhancement measures								
ENH – PH1	Chapter 12 Population and human health **[TR010044/APP/6.1]**	Based on agreement made between the Principal Contractor and the relevant local authorities, a temporary diversion could be provided along the northern perimeter of the Order Limits adjacent to the existing A428 whereby PRoW 194/55 and 194/52 are linked. This would enable footpath users to 'loop' back towards Eynesbury to complete their journey.	Yes	To provide an alternative route for PRoWs during construction.	No impediment to linking the PRoWs.	N/A	Measures would be delivered by the Principal Contractor, where feasible.	Principal Contractor

Table 9: Road drainage and the water environment

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
Embedded mitigation								
EMB – RD1	Chapter 13 Road drainage and the water environment **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Appendix 13.2 Assessment of road runoff and spillage risk **[TR010044/APP/6.3]** Engineering Section Drawings **[TR010044/APP/2.10]**	Incorporation of treatment trains into the design of the Scheme (comprising features including, but not limited to, wet ponds, filter drains, swales, new highway ditches and hydrodynamic vortex flow separators) at locations illustrated on the Drainage Layouts within the Engineering Section Drawings **[TR010044/APP/2.10]**.	No	Pollution control through the collection and treatment of routine road runoff associated with the operational Scheme, prior to its discharge into receiving watercourses.	Effects relating to water quality.	N/A	Measures would be secured through: Requirement 13 of the DCO **[TR010044/APP/3.1]**. Engineering Section Drawings **[TR010044/APP/2.10]**.	Principal Contractor
EMB – RD2	Chapter 13 Road drainage and the water environment **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Engineering Section Drawings **[TR010044/APP/2.10]**	Incorporation of sustainable drainage features into the design of the Scheme, designed to ensure no surcharge for a 1 in 1 year return period and no flooding in a 1 in 5 year return period, and including for a 40% increase in rainfall intensity.	No	To mimic natural drainage as far as practicable, and to provide a number of other benefits to ecological habitat creation. Flow attenuation. Resilience against future climate change.	Effects relating to drainage and climate change.	N/A	Measures would be secured through: Requirement 13 of the DCO **[TR010044/APP/3.1]**. The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
EMB – RD3	Chapter 13 Road drainage and the water environment **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Engineering Section Drawings **[TR010044/APP/2.10]**	Installation of 39 new engineered outfalls for surface water at locations illustrated on the Drainage Layouts within the Engineering Section Drawings **[TR010044/APP/2.10]**. The number of new surface water outfalls has been minimised by using existing outfalls, where possible.	No	To discharge operational runoff from the strategic and local road networks. To avoid the need to construct new structure and outfalls.	Effects relating to water quality and the discharge of runoff.	N/A	Measures would be secured through: Engineering Section Drawings **[TR010044/APP/2.10]**.	Principal Contractor
EMB – RD4	Chapter 13 Road drainage and the water environment **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]** Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]** Appendix 143.4 Flood Risk Assessment **[TR010044/APP/6.2]**	Construction of flood compensation areas within the Order Limits of the Scheme at the following locations, as illustrated on Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**: a. River Great Ouse: two areas. b. Rockham Ditch: two areas. c. Begwary Brook: two areas. d. South Brook: two areas. e. Rectory Farm: one area. f. Hen Brook: one area. g. Top Farm Watercourse: one area.	No	To mitigate (compensate) for loss of floodplain storage volume.	Effects relating to flood risk.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**.	Principal Contractor
EMB – RD5	Chapter 13 Road drainage and the water environment **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Construction of a viaduct over the River Great Ouse and its floodplain, comprising a six-span twin ladder girder, steel-concrete composite viaduct comprising of two decks each carrying the new eastbound and westbound carriageways. Piers and adjoining embankments have been designed and located to avoid the river channel and provide minimal obstruction of floodplain flows. The soffit for the viaduct where it spans the River Great Ouse has been designed to ensure sufficient clearance for navigation, and has taken into account flood levels. Piers have been designed to be set back from the bank edge to minimise the span length required.	No	To provide minimal obstruction of floodplain and river flows. To allow navigation along the navigable section of the river to continue unobstructed.	Effects associated with flood risk and navigation.	N/A	Measures would be secured through: Engineering Section Drawings **[TR010044/APP/2.10]**.	Principal Contractor
EMB – RD6	Chapter 13 Road drainage and the water environment **[TR010044/APP/6.1]**	Installation of culverts (box or pipe) at locations illustrated on the Drainage Layouts within the Engineering Section Drawings **[TR010044/APP/2.10]**.	No	To maintain existing watercourse flows crossed by the Scheme and minimise	Effects on drainage, flood risk and morphology.	N/A	Measures would be secured through: Engineering Section Drawings **[TR010044/APP/2.10]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
	Chapter 2 The Scheme **[TR010044/APP/6.1]**			interruption to existing hydromorphological processes. Flood risk management.				
EMB – RD7	Chapter 13 Road drainage and the water environment **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The diversion, realignment or re-routing of existing watercourses at locations illustrated on the Drainage Layouts within the Engineering Section Drawings **[TR010044/APP/2.10]**.	No	To maintain a more perpendicular crossing and shortest possible crossing length by the Scheme. To maintain existing watercourse flows crossed by the Scheme and minimise interruption to existing hydromorphological processes. To ensure flood risk is not increased.	Effects on drainage, flood risk and morphology.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**.	Principal Contractor
Essential mitigation								
ESS – RD1	Chapter 13 Road drainage and the water environment **[TR010044/APP/6.1]**	The Principal Contractor will develop and implement a Water Management Plan (WMP) based upon the outline Water Management Plan in the First Iteration EMP **[TR010044/APP/6.8]**. The Water Management Plan will include, but not be limited to, information relating to the delivery of the following: a. Roles and responsibilities. b. Relevant legislation and best practice guidance. c. Controlling and minimising the risk of pollution to surface waters and groundwater by managing construction site runoff and the risk of chemical spillages. d. Controlling the storage, handling and disposal of potentially polluting substances during construction.	Yes	To protect the water environment and ensure delivery of mitigation measures.	The assessment assumes the implementation of the Water Management Plan.	Implementation of the Water Management Plan.	Contractual requirement between Highways England and the Principal Contractor. First Iteration EMP **[TR010044/APP/6.8]**. DCO Requirement 3 **[TR010044/APP/3.1]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
		e. Managing activities within floodplains in the area of River Great Ouse, and Hen Brook (i.e. kept to a minimum) with temporary land take required for construction to be located out of the floodplain as far as reasonably practicable or allowances made for floodplain control measures and contingency actions. Minimising pollution risks during flooding is also an important consideration; f. Managing the risk from groundwater flooding (for example in the area of the A1 underpass) through appropriate working practices (during excavations) and with adequate plans and equipment in place for de-watering to ensure safe dry working environments; g. Managing water removed from cuttings, borrow pits and other excavations. h. Managing pollution and physical impact risks when undertaking works within, over, under and adjacent to water bodies. i. Managing highway runoff to protect the water environment. j. Development and implementation of a Water Framework Directive mitigation and enhancement strategy. k. Undertaking a programme of water quality, level and flow monitoring will be undertaken pre-construction, during construction, and for a short period post-construction works.						
Enhancement measures								
ENH – RD1	Chapter 13 Road Drainage and Water **[TR010044/APP/6.1]**	The assessment identified that within the Order Limits, approximately 2,250 metres of watercourses could be improved within the highway boundary. If implemented. improvements would present the following enhancement measure opportunities: a. Creation of narrower and/or multi-stage channels to increase base flow depths and velocities, improving flow regimes and reducing fine sediment deposition. b. Improvement of channel geomorphic diversity through the addition of bedforms (for example alternating shallow berms, riffles and pools in more established channels where gradients are sufficient), and woody material linked with riparian improvements. c. Improvement of connectivity between the floodplain and habitat diversity within the channel by re-grading the bank (scrapes), creating two stage channels, small bays and marginal wetlands. d. Management of undesirable plants that have invaded the riparian zone and into the channel.	Yes	Improve the WFD status of the watercourses within the highway boundary.	That further site specific studies and engagement with relevant parties can be completed to inform which enhancement opportunities can be delivered, and in which locations.	N/A	Enhancements would be delivered by the Principal Contractor, where feasible.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
		e. Management of overgrown vegetation to improve light penetration to the channel where appropriate (for example diversification of trees and shrubs). f. Improvement of the structure of the existing riparian vegetation and vegetation-driven morphological processes. g. Provision of or increase in the width of existing riparian buffer zones between the channel and surrounding farmland to manage risk from diffuse agricultural pollution. h. Install new stock proof fences where applicable and with landowner consent. The implementation of different enhancement actions would depend on the site-specific constraints, the character of what the unmodified watercourse would be, and the current condition of the watercourse including local modifications and pressures. Flood risk management and landowner consultation would also inform considerations. Types and opportunities would be defined by ecologists, geomorphologists and water quality scientists, and would include integrated assessments of catchment – watercourse connectivity such as fine sediment and agricultural pollutant pathways. Further survey and assessment (for example hydromorphological, ecology, engineering constraints, flood risk and land owner considerations) would be undertaken to establish these constraints and to determine what opportunities for enhancement are feasible.						

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
ENH – RD2	Chapter 13 Road Drainage and Water **[TR010044/APP/6.1]**	The assessment has identified that approximately 2,750 metres of watercourses could be improved outside of the highway boundary. If implemented, improvements would present the following enhancement measure opportunities: a. Creation of narrower and/or multi-stage channels to increase base flow depths and velocities, improving flow regimes and reducing fine sediment deposition. b. Improvement of channel geomorphic diversity through the addition of bedforms (for example alternating shallow berms, riffles and pools in more established channels where gradients are sufficient), and woody material linked with riparian improvements. c. Improvement of connectivity between the floodplain and habitat diversity within the channel by re-grading the bank (scrapes), creating two stage channels, small bays and marginal wetlands. d. Management of undesirable plants that have invaded the riparian zone and into the channel. e. Management of overgrown vegetation to improve light penetration to the channel where appropriate (for example diversification of trees and shrubs). f. Improvement of the structure of the existing riparian vegetation and vegetation-driven morphological processes. g. Provision of or increase in the width of existing riparian buffer zones between the channel and surrounding farmland to manage risk from diffuse agricultural pollution. h. Install new stock proof fences where applicable and with landowner consent. The implementation of different enhancement actions would depend on the site-specific constraints, the character of what the unmodified watercourse would be, and the current condition of the watercourse including local modifications and pressures. Flood risk management and landowner consultation (and agreement) would also inform considerations. Types and opportunities would be defined by ecologists, geomorphologists and water quality scientists, and would include integrated assessments of catchment – watercourse connectivity such as fine sediment and agricultural pollutant pathways. Further survey and assessment (for example hydromorphological, ecology, engineering constraints, flood risk and land owner considerations) would be undertaken to establish these constraints and to determine what opportunities for enhancement are feasible.	Yes	Improve the WFD status of the watercourses outside the highway boundary.	That further site specific studies and engagement with relevant parties can be completed to inform which enhancement opportunities can be delivered, and in which locations. Landowner permission is secured to deliver the improvements would be outside the highway boundary.	N/A	Enhancements would be delivered by the Principal Contractor, where feasible.	Principal Contractor

Table 10: Climate

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
Embedded mitigation								
EMB – C1	Chapter 14 Climate **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The specification and installation of highway equipment capable of withstanding high temperatures (including electrical equipment comprising information and communication systems, bridge joints and paved surfaces).	No	To increase the resilience of the Scheme to extreme weather conditions.	Effects relating to climate change and/or extreme weather events.	N/A	Measures would be secured through: The development of the preliminary design into a detailed design within Requirement 12 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**.	Principal Contractor
EMB – C2	Chapter 14 Climate **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	Implementation of emergency systems, including the identification of suitable network redundancies and diversion routes.	No	To respond to severe weather events and increase the resilience of the Scheme to extreme weather conditions.	Effects relating to climate change and/or extreme weather events.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**.	Principal Contractor
EMB – C3	Chapter 14 Climate **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The incorporation of sustainable drainage solutions to handle road runoff and provide resilience against potential future flood events associated with climate change.	No	To handle road runoff and provide resilience against potential future flood events associated with climate change.	Effects relating to climate change and/or extreme weather events.	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. Engineering Section Drawings **[TR010044/APP/2.10]**	Principal Contractor
EMB – C4	Chapter 14 Climate **[TR010044/APP/6.1]**	The use of energy efficient road lighting.	No	To reduce energy consumption during operation of the Scheme.	Effects relating to carbon emissions (greenhouse gas).	N/A	Measures would be secured through:	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
	Chapter 2 The Scheme **[TR010044/APP/6.1]**						Requirement 17 of the DCO **[TR010044/APP/3.1]**. The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**.	
EMB – C5	Chapter 14 Climate **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The reuse of materials arisings generated from construction works within the design of the Scheme, where possible.	Yes	To minimise greenhouse gas emissions associated with the transportation of materials, both on- and off-site.	Effects relating to carbon emissions (greenhouse gas).	Materials use would be monitored and recorded through the classification, tracking and storage measures set out in the Materials Management Plan contained in the First Iteration EMP **[TR010044/APP/6.8]**.	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. First Iteration EMP **[TR010044/APP/6.8]**.	Principal Contractor
EMB – C6	Chapter 14 Climate **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The inclusion of borrow pits within the Scheme to source suitable construction material for the Scheme.	No	To reduce the need to import material, and thereby reduce the associated traffic movements that could result in greenhouse gas emissions.	Effects relating to carbon emissions (greenhouse gas).	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. First Iteration EMP **[TR010044/APP/6.8]** The General Arrangement Plans **[TR010044/APP/2.4]**	Principal Contractor
EMB – C7	Chapter 14 Climate **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The planting of trees, shrubs and hedgerows as part of the landscape design for the Scheme.	Yes	To offset some of the carbon emissions associated with land use changes	Effects relating to carbon emissions (greenhouse gas).	The successful establishment of all planting and seeding areas.	Measures would be secured through:	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
	Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**			introduced by the Scheme, and subsequent loss of carbon sink.		Maintenance and monitoring of all planting and seeding during the contract period (five years).	Requirement 6 of the DCO **[TR010044/APP/3.1]**. Figure 2.4 Environmental Masterplan **[TR010044/APP/6.2]**. First Iteration EMP **[TR010044/APP/6.8]**.	
EMB – C8	Chapter 14 Climate **[TR010044/APP/6.1]** Chapter 2 The Scheme **[TR010044/APP/6.1]**	The retention, where possible, of existing highway infrastructure within the Scheme design.	No	To reduce greenhouse gas emissions associated with demolition activities and the transportation of associated arisings off-site.	Effects relating to carbon emissions (greenhouse gas).	N/A	Measures would be secured through: The description of the authorised development contained in Schedule 1 of the DCO **[TR010044/APP/3.1]**. The Works Plans **[TR010044/APP/2.3]**. The De-Trunking Plans **[TR010044/APP/2.5]**. The Streets, Rights of Way and Access Plans **[TR010044/APP/2.6]**.	Principal Contractor
Essential mitigation								
ESS – C1	Chapter 14 Climate **[TR010044/APP/6.1]** First Iteration EMP **[TR010044/APP/6.8]**	The Principal Contractor will develop and implement a management plan to reduce energy consumption and associated Greenhouse Gas (GHG) (carbon) emissions for the duration of the construction phase. The Plan would include measures to reduce emissions during construction, such as the specification of recycled or low-carbon materials (i.e. materials that have the lowest GHG emitting life-cycle, compared with alternatives). In addition, and where practicable, measures would be implemented to manage material resource use during construction such as: • Using materials with lower embedded greenhouse gas emissions and water consumption. • Using sustainably sourced materials. • Using recycled or secondary materials. The Plan would be based upon the outline Energy and Resource Management Plan as presented within the EMP **[TR010044/APP/6.8]**.	Yes	To ensure that construction related GHG emissions are understood and reduced in line with the requirements of the Energy and Resource Management Plan.	The assessment assumes the implementation of the Energy and Resource Management Plan.	Energy consumption and materials use would be recorded and reported on an ongoing basis during the construction phase of the Scheme using Highways England Carbon Reporting Tool.	Contractual requirement between Highways England and the Principal Contractor. First Iteration EMP **[TR010044/APP/6.8]**. DCO Requirement 3 **[TR010044/APP/3.1]**.	Principal Contractor

Ref	Source ref	Action or commitment (including specific location if appropriate)	Is monitoring required? Yes/ No	Objective	Assumption on which the action is based	Achievement criteria and reporting requirements (if applicable	How the action is to be implemented	Responsible person(s)
Enhancement measures								
ENH – C1	Chapter 14 Climate **[TR010044/APP/6.1]**	The Principal Contractor would develop and implement a procurement strategy to reduce energy consumption and associated GHG (carbon) emissions, which would include measures relating to the use of renewable and/or low or zero carbon energy sources and the recording of savings achieved.	No	Facilitate energy consumption reductions.	Reduced consumption results in reduced GHG (carbon) emissions)	N/A	Measures would be delivered by the Principal Contractor, where feasible.	Principal Contractor