



The High Speed Rail (London – West Midlands) (Greatmoor Railway Sidings Etc.) Order

Environmental Statement – technical appendices

Volume 4.10:

Landscape and visual impact assessment

August 2016

CS573_5.4.10



The High Speed Rail (London – West Midlands)
(Greatmoor Railway Sidings Etc.) Order

Environmental Statement – technical appendices

Volume 4.10:

Landscape and visual impact assessment

August 2016

CS573_5.4.10



Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

High Speed Two (HS2) Limited,
One Canada Square,
Canary Wharf,
London E14 5AB

Telephone: 020 7944 4908

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.gov.uk/hs2

High Speed Two (HS2) Limited has actively considered the needs of blind and partially sighted people in accessing this document. The text will be made available in full on the HS2 website. The text may be freely downloaded and translated by individuals or organisations for conversion into other accessible formats. If you have other needs in this regard please contact High Speed Two (HS2) Limited.

© High Speed Two (HS2) Limited, 2016, except where otherwise stated.

Copyright in the typographical arrangement rests with High Speed Two (HS2) Limited.

This information is licensed under the Open Government Licence v2.0. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/version/2 **OGL** or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk. Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.



Printed in Great Britain on paper containing at least 75% recycled fibre.

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

ATKINS



Contents

1	Introduction	3
2	Methodology	4
	2.1 Landscape character baseline	4
	2.2 Assessing the significance of landscape effects	5
	2.3 Visual Amenity baseline	8
	2.4 Assessing the significance of visual effects	9
3	Environmental baseline report	13
	3.1 Introduction	13
	3.2 Landscape baseline assessment	13
	3.3 Visual baseline assessment	19
4	Schedule of non-significant effects	35
	4.1 Effects arising from construction	35
	4.2 Cumulative effects 2017-2019	38
	4.3 Effects arising from operation	38
	4.4 Cumulative effects 2019 onwards	43

List of tables

Table 1: Landscape value	5
Table 2: Landscape sensitivity	6
Table 3: Landscape magnitude of change	7
Table 4: Significance of Landscape effects	8
Table 5: Visual sensitivity	10
Table 6: Visual magnitude of change	11
Table 7: Significance of Visual effects	12
Table 8: Landscape assessment - non-significant construction effects	35
Table 9: Visual assessment - non-significant construction effects	36
Table 10: Landscape assessment - non-significant operation effects	38
Table 11: Visual assessment - non-significant operation effects	41

1 Introduction

- 1.1.1 This appendix describes the baseline for all landscape character areas (LCAs) and representative viewpoints assessed in Volume 2: Main Environmental Statement and an outline of the methodology for the landscape and visual assessment.
- 1.1.2 The LCA and viewpoints are shown on the following drawings in Volume 3: Environmental Statement Maps:
- Map ES-18: Construction Phase Viewpoints and Zone of Theoretical Visibility;
 - Map ES-19: Operational Phase Viewpoints and Zone of Theoretical Visibility; and
 - Map ES-20: Landscape Character Areas.
- 1.1.3 The assessment methodology used is based on the third edition of the Guidelines for Landscape and Visual Impact Assessment (GLVIA 3)¹. It broadly follows the methodology set out in the HS2 Phase One ES, Volume 5, the SMR, and the SMR Addendum. The SMR and SMR addendum can be found in Volume 4.01: Environmental Statement Technical Appendix: Additional information.

¹ Landscape Institute and Institute of Environmental Management and Assessment, 2013

2 Methodology

2.1 Landscape character baseline

- 2.1.1 Landscape character areas (LCA) are areas with broadly homogenous characteristics. The baseline descriptions of the LCA were based on published character assessments and site survey. For the purposes of this assessment, the study area has been sub-divided into five discrete LCA. The LCA have been determined with reference to the Landscape Plan for Buckinghamshire² and the Aylesbury Vale Landscape Character Assessment³ (AVLCA). Full descriptions of the LCA are provided in Section 3.
- 2.1.2 The AVLCA assesses condition by evaluating the pattern of the landscape and the presence of incongruous or detracting features in it, how well the landscape functions as a habitat for wildlife and the condition of cultural or 'man-made' elements such as enclosure, built elements and roads.
- 2.1.3 The site survey undertaken as part of this assessment reviewed the findings of the AVLCA (carried out in 2008) and identified the key characteristics present in the study area.
- 2.1.4 The tranquillity of each LCA was evaluated with reference to the following criteria:
- Land use;
 - Level of seclusion or isolation, including perception of nature;
 - Extent and type of enclosure by surrounding land uses;
 - Level of screening afforded by vegetation, ground level change or boundary treatments;
 - Levels and types of vehicular traffic within, or close to the character area;
 - Levels of pedestrian traffic within, or close to the character area;
 - Level of light pollution; and

² Landscape Plan for Buckinghamshire Part 1: Landscape Character Assessment, (2000) Buckinghamshire County Council, Aylesbury.

³ Aylesbury Vale Landscape Character Assessment, prepared for Buckinghamshire County Council and Aylesbury Vale District Council, Jacobs (2008), Glasgow

- The absence or presence of major infrastructure routes within or in the vicinity of the character area.

2.1.5 Tranquillity can be high, medium or low.

2.1.6 As part of the baseline description, the value of the potentially affected landscape was established to inform the assessment of the significance of effects. The assessment of landscape value was based on the criteria in the Table 1 below:

Table 1: Landscape value

Scale of landscape value	Where the character area is:
International	Located within a World Heritage Site. Considered an internationally important component of the country's character, experienced by significant numbers of international tourists
National	Located within an Area of Outstanding Natural Beauty (AONB). A nationally significant historic or cultural resource. Considered a distinctive component of the country's character, experienced by significant numbers of tourists from around the country.
Regional	Located within green belt, Metropolitan Open Land or a regional scale park. Considered a distinctive component of the region's character, experienced by a large proportion of its population.
County/Borough/District	Designated open space within the local authority Unitary Development Plan or Local Development Framework. Designated as a conservation area. Experienced by a significant proportion of the county's, borough's or district's population.
Local	A landscape of local significance (recognised at local authority level where criteria based assessments have been undertaken and locally adopted). A public, semi-public or private open space that serves the local community or residents. A residential area, likely to be valued by the local community
Limited	A commercial, industrial or disused area that has limited landscape value to the local community or residents

2.2 Assessing the significance of landscape effects

2.2.1 Judging the significance of landscape effects requires the assessment of the sensitivity of the landscape receptors and the magnitude of the effect on the landscape.

2.2.2 The sensitivity of the landscape receptor was assessed with reference to its landscape value and its susceptibility to the type of the Proposed Scheme. Susceptibility to change is the ability of the landscape receptor to accommodate the Proposed Scheme without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies⁴. The assessment of sensitivity requires the application of professional judgement, in line with GLVIA 3. The presence of any combination of attributes may be considered when assessing the sensitivity of a character area, including published character assessments allowing professional judgement to be used when determining the relative importance of different attributes. The attributes which influence the sensitivity of a character area and the criteria used to assess the magnitude of change and the level of landscape effects are described in the tables below.

Table 2: Landscape sensitivity

Sensitivity	Where the character area is:
High	Valued at the international, national or regional scale. Predominantly characterised by landscape components that are rare and distinctive and/or listed. Designated as a conservation area or registered park and garden. Of elevated tranquillity. Has high susceptibility to change where attributes that make up the character of the landscape offer limited opportunities for the accommodation of the type of change proposed. Has components that are not easily replaced or substituted (e.g., mature trees). Has limited scope for effective mitigation in character with the existing landscape. Is well maintained and in a good condition, largely intact, with an unspoilt character.
Medium	Valued at borough/district or local scale. Of moderate levels of tranquillity. Of medium susceptibility to change where attributes that make up the character of the landscape offer some opportunities for the accommodation of the type of change proposed without key characteristics being fundamentally altered. Has components that are easily replaced or substituted. Has scope for effective mitigation in character with the existing landscape. In a fair condition demonstrating change, with some unspoilt characteristics. Some detracting elements.
Low	Lacking in distinctive components, or has components that detract from the overall character of the site. Has limited tranquillity. Of low susceptibility to change as attributes that make up the character of the landscape are resilient to being changed by the type of development proposed. Has components that are easily replaced or substituted. Has scope for effective mitigation in character with the existing landscape, and opportunities for an improvement in character. In a poor condition demonstrating a high degree of change, with many detracting elements.

2.2.3 Impacts on the landscape resource may arise from changes to overall landscape character or to individual elements or features. As shown in Table 3 factors that may affect the magnitude of change to the landscape resource include:

⁴ GLVIA 3

- Extent of the loss of existing landscape elements;
- Degree to which aesthetic or perceptual aspects of the landscape are altered by the removal of existing landscape components or the introduction of new ones;
- Scale of the geographical area affected by the development; and
- Duration and reversibility of the effect.

Table 3: Landscape magnitude of change

Impact magnitude	Definition
High	Total loss or substantial alteration to key characteristics of the character and/or setting of the character area. Addition of new uncharacteristic features or components that alter a substantial proportion of the character and/or a large part of the setting of the character area.
Medium	Noticeable change or alteration to one or more key characteristics of the character and/or setting of the character area. Addition of new features or components that form prominent elements of the character and/or setting of the character area, but are largely characteristic of the existing setting. Uncharacteristic changes across only a proportion of the character area or its setting.
Low	Slight loss or alteration to one or more characteristics of the character and/or setting of the character area. Addition of new features or components that form largely inconspicuous elements of the existing character and/or setting.
Negligible	No change to, or barely perceptible loss or alteration of inconspicuous characteristics of the character and/or setting of the character area. Addition of new features or components that do not influence the overall character and/or setting of the character area, or are entirely characteristic of the existing setting.

2.2.4 Effects were evaluated by combining the assessment of both magnitude and sensitivity to predict the significance of effect, as described in Table 4. These effects can be beneficial or adverse and temporary or permanent, depending on the nature of the project, the mitigation and any enhancement measures proposed.

Table 4: Significance of Landscape effects

Effect	Description
Major beneficial – significant	Would considerably and distinctly improve and enhance the existing character. Would restore or enhance valued characteristic features substantially or entirely lost through other land uses.
Moderate beneficial - significant	Would markedly improve and enhance the existing character. Would restore or enhance valued characteristics substantially lost through other land uses.
Minor beneficial	Would slightly enhance the existing character. Would restore valued characteristic features partially lost through other land uses
Negligible	Would be compatible with the existing character
Minor adverse	Would be slightly at variance with the existing character. Would damage or partially remove some valued characteristic features
Moderate adverse -significant	Would be at variance with the existing character. Would degrade, diminish or destroy valued characteristic features, elements and/or their setting. Would not be wholly compatible with local environmental policies for the protection and enhancement of the landscape.
Major adverse - significant	Would be at considerable variance with the existing character, degrading its integrity. Would permanently degrade, diminish or destroy the integrity of valued characteristic features, elements and/or their setting Would comprehensively conflict with national, regional or local environmental policies for the protection and enhancement of the landscape.

2.3 Visual Amenity baseline

2.3.1 The assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity⁵. Visual effects are discussed on a number of levels:

2.3.2 Specific viewpoints that are protected views defined in:

- Conservation area appraisals;

⁵ GLVIA 3

- Local plans;
- Views to and from heritage assets (reported in the heritage chapter); and
- Views from representative viewpoints.

2.3.3 Representative viewpoints were 'selected to represent the experience of different types of visual receptor, where larger numbers of viewpoints cannot all be included individually and where the significant effects are unlikely to differ.'

2.3.4 The selection of principal viewpoints from publicly accessible land was based on:

- Extent of the possible visibility of the Proposed Scheme;
- Findings of the site survey;
- Review of planning policy documents; and
- Discussions with the local planning authority.

2.4 Assessing the significance of visual effects

2.4.1 Judging the significance of visual effects requires the assessment of the sensitivity of visual receptors and the magnitude of the effects.

2.4.2 Sensitivity is defined through judgements about susceptibility of the visual receptor to the type of change arising from the Proposed Scheme; and the value attached to particular views. Susceptibility to change of visual receptors depends on the occupation or activity of people and the extent to which their attention is focused on views and visual amenity.

2.4.3 The most susceptible visual receptors (people) include:

- residents at home;
- people engaged in outdoor recreation whose interest is likely to be focused on landscape and views;
- visitors to heritage assets or other attractions where views are important to the experience; and
- communities where views contribute to landscape setting enjoyed by residents.

2.4.4 Those less likely to be focused on the landscape and views include:

- people engaged in outdoor sport or recreation which do not involve appreciation of views of the landscape; and
- people at places of work where the setting is not important to the quality of working life.

2.4.5 Travellers on road rail or other routes unless the travel is along recognised scenic routes tend to fall into an intermediate category of low susceptibility to change.

2.4.6 The value attached to views identified take into account of:

- value attached to particular views through planning designations; and
- value attached to views by visitors (references in guidebooks; provision of signs, references in literature and art).

2.4.7 The sensitivity of visual receptors was mapped according to the criteria in Table 5 below.

Table 5: Visual sensitivity

Sensitivity	Description
High	Occupiers of residential properties Recreational users or tourists whose attention may be focussed on the landscape Protected or designated view at national, regional or local level. Scene with considerable scenic or amenity value
Medium	People travelling along scenic roads through the landscape People staying in hotels and healthcare institutions People walking along residential streets Protected or designated view at local level. Views valued at a local level for scenic and amenity value
Low	People at work and in educational institutions People engaged in formal sports activities People walking through urban areas (for example commuters) People travelling on main roads through the landscape

	Views valued at a community level; views with limited scenic/amenity value
--	--

2.4.8 The factors that were considered in assessing the magnitude of change on representative views and the level of visual effects are summarised in the tables below.

Table 6: Visual magnitude of change

Impact magnitude	Definition
High	Total loss or substantial alteration to key characteristics of the view from a receptor. Addition of new features or components continuously highly visible across the majority of the view and incongruous with the existing view from a receptor. Substantial changes in close proximity to the visual receptor, within the direct frame of view.
Medium	Noticeable change or alteration to one or more key characteristics of the view from a receptor. Addition of new features or components that may be continuously highly visible across much of the view, but are largely characteristic of the existing view from a receptor. Changes a relatively short distance from the receptor, but viewed as one of a series of components in the middle ground of the view. Substantial change partially filtered by intervening vegetation and/or built form, or viewed obliquely from the visual receptor.
Low	Slight loss or alteration to one or more characteristics of the view from a receptor. Addition of new features or landscape components that may be continuously or intermittently visible in part of the view, but are largely characteristic of the existing view from a receptor. Changes within the background of the view, viewed as one of a series of components in the wider panoramic view from a receptor. Change largely filtered by intervening vegetation and/or built form, or viewed obliquely from the visual receptor.
Negligible	No change to, or barely perceptible loss or alteration of inconspicuous characteristics of the view from a receptor. Addition of new features or landscape components largely inconspicuous and characteristic of the existing site when viewed from a receptor. Changes within the background of the view, viewed as an inconspicuous element within the wider panoramic view from a receptor. Change from a visual receptor almost entirely obscured by intervening vegetation and/or built form. Short term changes in a small proportion of the view

2.4.9 Effects were evaluated by combining the assessment of magnitude and sensitivity to predict the significance of effect, as described in Table 7. These effects can be beneficial or adverse and temporary or permanent, depending on the nature of the Project, the mitigation and any enhancement measures proposed.

Table 7: Significance of Visual effects

Effect	Description
Major beneficial – significant	A marked improvement in the existing view
Moderate beneficial - significant	A noticeable improvement in the existing view
Minor beneficial	A discernible improvement in the existing view
Negligible	No perceptible deterioration or improvement in the existing view
Minor adverse	A discernible deterioration in the existing view
Moderate adverse -significant	A noticeable deterioration in the existing view
Major adverse - significant	A marked deterioration in the existing view

2.4.10 Residual significant effects are reported for those effects that will persist after any mitigation.

3 Environmental baseline report

3.1 Introduction

3.1.1 This section contains:

- a description of each LCA identified in the study area and an analysis of its condition, tranquillity, value, susceptibility to change and sensitivity; and
- a description of each viewpoint identified within the study and a representative photograph of the view.

3.2 Landscape baseline assessment

3.2.1 Descriptions and photographs of the LCA are provided below.

Kingswood Wooded Farmland LCA



This LCA is a gently sloping or undulating landscape, with a mix of pasture and arable land dispersed throughout the area. The majority of the ground lies between 70m and 80m, with only small hills and the edges rising to higher levels. The River Ray runs through the LCA. The landscape contains areas of ancient woodland, remnants of the medieval hunting forest of Bernwood, which along with numerous fine hedgerow trees, gives the landscape a wooded farmland character. The area retains a field pattern of early enclosure and the hedgerows are generally strong and clipped. The LCA is generally in good landscape condition. Despite the predominantly agricultural character of the area, tranquillity overall is considered medium due to the influence of the Aylesbury Link railway line, the Greatmoor energy from waste plant (EfW) facility and the Calvert landfill site (just beyond the north-eastern boundary of the LCA in Calvert Clay Pits LCA). With the presence of PRoW (CAG/2/1, GUN/13/4, GUN/14/1, GUN/24/1, GUN/25/1, GUN/25/2, GUN/28/1, GUN/31/1, GUN/33/1, GUN/33/2, GUN/34/1, GUN/35/1, GUN/36/1, GUN/36/2, QUA/36/1, QUA/36/2, ancient woodland and Grade II listed buildings in the LCA, the area is valued at a regional level. The railway, Greatmoor EfW facility and Calvert landfill site detract from the otherwise rural character of the landscape, but this detracting effect is contained to a relatively small proportion of the LCA by its undulating topography and woodland. The LCA has a medium susceptibility to change of the type of development proposed (new sidings adjacent to the railway line) because the Proposed Scheme is similar in nature to the type of development already present in the LCA.

Overall, due to its good condition, regional value, medium tranquillity and medium susceptibility to change, this area is of high sensitivity.

Key characteristics: high density ancient woodland, oaks in hedgerows, sparsely settled, retains field pattern of early enclosure and medieval hunting forest of Bernwood.

Distinctive Features: village of Grendon Underwood, small historic barns in fields, views of Finemere Hill, ridge and furrow, disused railway tracks, veteran trees and trees within fields and large blocks of broadleaved woodland.

Finemere Hill LCA



This LCA is an undulating landscape with a mix of pasture and arable land generally dispersed throughout the area. It contains areas of ancient woodland which, along with numerous mature hedgerow trees, confers a wooded farmland character and results in a good landscape condition. A lack of vehicular access and the large areas of woodland creating a sense of seclusion mean that this LCA has a high level of tranquillity. With the presence of PRow, Finemere Wood Site of Special Scientific Interest (SSSI), and ancient woodland the area is valued at a regional level. The LCA has a high susceptibility to change of the type of development proposed because the LCA is predominantly rural.

Overall, due to its good condition, regional value, high tranquillity and high susceptibility to change, this area is of high sensitivity.

Key Characteristics: hills with steep sides particularly to the south, high level of woodland cover, source of several streams including the river Ray, predominantly grassland, half of which is unimproved, good rights of way network following distinctive historic tracks and ancient woodland.

Distinctive Features: views from the tops of hills, Finemerehill House, woodland flora, ponds on tops of hills, ridge and furrow, large blocks of woodland, alcareous grassland and watershed

Claydon Bowl LCA



This LCA comprises a ridge of higher ground around the edges which slopes to lower ground in the centre to form a bowl. Located in the centre is the Grade II designated Claydon House Parkland RPG. The area supports mixed farming and contains several ancient semi-natural woodlands, including Sheephouse Wood SSSI, which are remnants of the historic Bernwood Forest. The LCA generally has a strong hedgerow pattern that unifies the area. As a result the condition of the landscape is considered good. Tranquillity is considered to be high, given a low level of settlement and relatively through few roads. A freight service (up to four trains a day) uses the Bicester to Bletchley railway south of Steeple Claydon and the Aylesbury Link railway line to the southwest of the LCA. The landscape is associated with the Claydon House Estate and Parkland and is therefore valued at national level. The LCA has a high susceptibility to change of the type of development proposed because the LCA is predominantly rural.

Overall, due to its good condition, regional value, high tranquillity and high susceptibility to change, this area is of high sensitivity.

Key Characteristics: bowl with high ground around the edge, gently sloping ground, moderate level of woodland cover, mixed farming, small straight lanes and settlement on high ground.

Distinctive Features: ridge top villages, ponds in villages, vernacular buildings, traditional farm buildings, views to ridges and woodland to the south, plantation of mature poplars in grids, large blocks of broadleaved woodland and parkland.

Calvert Claypits LCA



The topography and character of this area is influenced by its former use in brick making. Clay pits at the north-western end of the LCA have been flooded to create the Calvert Jubilee Nature Reserve, a Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust Nature Reserve, and Grebe Lake, which is used for sailing. Calvert Green, built on the former brickworks site is a new residential area close to Calvert. The brick pits at the south-eastern end of the LCA are in use as the Calvert landfill site. There are pastoral fields to the south, bounded by dense mature hedgerows. Freight trains serving the Calvert landfill site use the former Oxford to Bletchley line and the Aylesbury Link railway line, along the north-western and north-eastern LCA boundaries respectively. The industrial use of the landscape and the high levels of windblown litter (from the Calvert landfill operation) mean that the landscape is in poor condition. Due to the influence of the active Calvert landfill site and railway lines, tranquillity is low. The area is locally valued by residents and visitors to the Calvert Jubilee Nature Reserve and Grebe Lake Sailing Club. The LCA has a low susceptibility to change of the type of development proposed because the Proposed Scheme is similar in nature to the type of development already present in the LCA.

Overall, due to its poor condition, low tranquillity, local value and low susceptibility to change, this area is of low sensitivity.

Key Characteristics: disturbed ground of former brickworks and pits and new landform created by Calvert landfill, including areas in progress.

Distinctive Features: two large lakes in Calvert Jubilee Nature Reserve surrounded by narrow belts of woodland, neutral grassland and new housing area on flat ground.

Poundon-Charndon Settled Hills LCA



The LCA comprises a series of low domed hills, forming a slight ridge across the surrounding lower vale landscapes. It is largely in agricultural use and fields are small or medium sized and defined by generally well-maintained hedgerows. Tree cover is limited to small fragments of woodland and isolated hedgerow trees. Settlement is dispersed with three small settlements: Poundon, Charndon and Edgcott. Relatively well-used minor roads cross the area and a freight railway runs south-west to north-east across the LCA. There are expansive views across the surrounding countryside to the north-east. A network of PRow traverses the landscape, including the Bernwood Jubilee Way and the Cross Bucks Way. A telecommunications mast on Poundon Hill is a local landmark. The Grendon Young Offender Institution and Springhill Prison are intrusive built elements in a largely rural setting. The landscape condition is fair due to the detracting influence of the mast and prison buildings. The presence of the prison, noise from local roads, and lighting from settlements means that tranquillity is medium. The LCA is of district value due to its extensive PRow network. The LCA has a medium susceptibility to change of the type of development proposed because the LCA already contains industrialising elements.

Overall, due to its fair condition, medium tranquillity, district value and medium susceptibility to change, this area is of medium sensitivity.

Key Characteristics: line of small hills, predominantly Parliamentary fields in east and pre-18th century irregular fields around Poundon, low density of woodland cover, good views out in all directions and settlements straddling hills.

Distinctive Features: ridge and furrow, narrow meandering lanes, disused railway, trees on top of small hills, linear villages of Charndon and Poundon and large blocks of neutral lowland meadow.

3.3 Visual baseline assessment

- 3.3.1 Descriptions of the representative viewpoints are provided below.
- 3.3.2 Photographs represent the view from each viewpoint in winter.
- 3.3.3 The viewpoint number identifies the viewpoint locations which are shown on maps ES-18 and ES-19 in Volume 3: Environmental Statement Maps.

Viewpoint 141.2.001: View north-west from Doddershall House

This viewpoint is representative of residents of Doddershall House. Due to lack of site access, it has not been possible to capture a photograph illustrating the view.

The view is over a pasture in the foreground and small woodland blocks and vegetation growing along the field boundaries in the middle ground. A pylon route crosses the view beyond, in front of Finemere Hill in the background.

Viewpoint 143.4.003: View north-west from minor road south of Shipton Lee

This viewpoint is representative of road users on a minor road south of Shipton Lee.

Viewpoint 143.4.003. Date taken: 21 April 2016. Nikon D3200, 35mm lens (stitched panorama).



The foreground view is of a pasture field, bordered by trees and scrub vegetation growing along the banks of the River Ray. This partially screens the vegetated embankment of the Aylesbury Link railway line in the middle ground. The brick buildings of Woodlands Farm can be seen through the trees, with the 95m high chimney of the Greatmoor EfW facility visible in the background.

Viewpoint 143.2.001: View north-east from Woodlands Farm

This viewpoint is representative of views from residential properties at Woodlands Farm. Due to lack of site access, it has not been possible to capture a photograph illustrating the view.

This is a view across undulating agricultural land. Vegetation lining the Aylesbury Link railway line and the private access road from the A41 to the Greatmoor EfW facility and the Calvert landfill site partially screens longer views, including those of the steel clad buildings on Oak Tree Farm and the Greatmoor EfW facility.

Viewpoint 143.4.004: View north from the minor road south of Greatmoor

This viewpoint is representative of views of road users from the minor road south of Greatmoor.

Viewpoint 143.4.004. Date taken: 21 April 2016. Nikon D3200, 35mm lens (stitched panorama).



The view is open in the foreground across agricultural land. Hewin's Wood can be seen on the left of the view, with the Greatmoor EfW facility clearly visible in the middle ground. The lower half of the Greatmoor EfW facility is partly screened by vegetation planted as part of the Greatmoor Environmental landscape restoration scheme (drawing (GR7/41, June 2012). The partially vegetated embankment of the Aylesbury Link railway line crosses the view behind the Greatmoor EfW facility. Greatsea Wood and Romer Wood can be seen on rising ground beyond.

Viewpoint 145.2.001: View north-east from Edgcott House and Prune Farm

This viewpoint is representative of views of from residential properties on Lawn Hill south of the Greatmoor EfW facility.

Viewpoint 145.2.001. Date taken: 21 April 2016. Nikon D3200, 35mm lens.



A densely planted belt of trees and hedgerow shrubs planted as part of the Greatmoor Environmental landscape restoration scheme along the northern side of the road prevents long views at ground level from the residential properties on the south side of the road. The Greatmoor EfW facility and the Aylesbury Link railway line on embankment are likely to be visible from upper floor windows.

Viewpoint 145.3.002: View north-west from Spring Hill and the Grendon Young Offender Institution and Springhill Prison

This viewpoint is representative of views from Spring Hill and the Grendon Young Offender Institution and Springhill Prison.

Viewpoint 145.3.002. Date taken: 21 April 2016. Nikon D3200 35mm lens (stitched panorama).



The land falls from Spring Hill down towards Greatmoor and there are clear views of the Greatmoor EfW facility over the farmland in the foreground. Intervening hedgerows and other vegetation partially screen isolated farms and dwellings in the middle ground. The Calvert landfill site is almost completely screened from view. Sheephouse Wood SSSI, Romer Wood and Greatsea Wood can be seen in the background on rising land.

Viewpoint 145.4.003: View north-east from Lawn Hill to the EfW facility

This viewpoint is representative of road users' views from Lawn Hill

Viewpoint 145.4.003. Date taken: 21 April 2016. Nikon D3200, 35mm lens (stitched panorama)



The foreground view is of open fields, with the Greatmoor EfW facility prominent in the middle ground. Romer Wood and Greatsea Wood are visible in the background on rising ground.

Viewpoint 146.2.001: View west from Finemerehill House

This viewpoint is representative of the view from Finemerehill House.

Viewpoint 146.2.001. Date taken: 21 April. Nikon D3200, 35mm lens (stitched panorama).



The open foreground view is over sloping agricultural land, divided by hedgerows with individual trees and small copses. The Greatmoor EfW facility is clearly visible in the middle ground, beyond the partially wooded Aylesbury Link railway line embankment. Romer Wood and Greatsea Wood on the right of the picture screen longer views to the north-west. The background contains an agricultural landscape featuring a number of clearly visible industrial features. These include the Calvert landfill site, utilitarian agricultural buildings and the Grendon Young Offender Institution and Springhill Prison. Beyond this, distant views of a flat, expansive landscape can be seen.

Viewpoint 146.3.002: View south-west along Footpath GUN28/1 and from the Claydon Woods Circular Walk (Bridleway GUN/33/1 and GUN/33/2) between Sheephouse Wood and Greatsea Wood

This photograph is representative of the view from Footpath GUN 28/1.

Viewpoint 146.3.002. Date taken: 21 April 2016. Nikon D3200, 35mm lens (stitched panorama)



The Greatmoor EfW facility is clearly visible over a foreground view of an arable field. Sheephouse Wood SSSI, on the right hand side of the picture, screens longer views to the west. The land slopes down towards the Greatmoor EfW facility. The local topography and the hedge along the field in the foreground screen the Aylesbury Link railway line embankment and the on which the sidings will be situated. The north-western end of the sidings site can be seen to the right of this hedge.

Viewpoint 146.3.005: Views north-west and south east from the bridge over the Aylesbury Link (Footpath GUN28)

This view is representative of recreational users' views north-west from the bridge over the Aylesbury Link railway line (Footpath GUN 28). NB: the footpath will be closed during construction.

Viewpoint 146.3.005. Date taken: 21 April 2016. Nikon D3200, 35mm lens (stitched panorama).



The Aylesbury Link railway line on a low embankment occupies the centre of the view with the vegetation of the low embankment partially screening the views to the south and north. The Greatmoor EfW facility is very prominent in the view of the left of the picture and Sheephouse Wood SSSI can be seen on the right and Dunsty Hill on the left, in the background. The Mega Ditch is between the Greatmoor EfW facility and the railway line. The Greatmoor Railway Sidings site is immediately to the right of the line, extending from the foreground to Sheephouse Wood SSSI.

Viewpoint 146.3.005: Views north-west and south-east from the bridge over the Aylesbury Link (Footpath GUN28)

This view is representative of recreational users' views south-east from the bridge over the Aylesbury Link railway line (Footpath GUN 28). NB: the footpath will be closed during construction.

Viewpoint 146.3.005. Date taken: 21 April 2016. Nikon D3200, 35mm lens (stitched panorama)



The Aylesbury Link railway line on a low embankment occupies the centre of the view. Vegetation on the low embankment partially screens view to the east and west. The private access road from the A41 to the Greatmoor EfW facility and the Calvert landfill site, lined with scrub, can be seen on the right, beyond the Aylesbury Link railway line. The wooded Lodge Hill, location of Waddesdon Manor (not visible) is in the background, on the right of the picture. A line of pylons crosses the view.

Viewpoint 148.2.001: View south-west from Knowlhill Farm

This view is representative of views from Knowlhill Farm.

Viewpoint 148.2.001. Date taken: 21 April 2016. Nikon D3200, 35mm lens (stitched panorama)



The open foreground view is agricultural land, divided by hedgerows with individual trees and small copses. The Greatmoor EfW facility is clearly visible, beyond the partially wooded Aylesbury Link railway line embankment. Sheephouse Wood SSSI on the right of the picture screens longer views to the west. The landscape in the background is partially wooded, with Grendon Wood on rising ground, but also contains utilitarian buildings associated with farming.

Viewpoint 146.3.005: Views north-west and south east from the bridge over the Aylesbury Link (Footpath GUN28)

This view is representative of recreational users' views north-west from the bridge over the Aylesbury Link railway line (Footpath GUN 28). NB: the footpath will be closed during construction.

Viewpoint 146.3.005. Date taken: 21 April 2016. Nikon D3200, 35mm lens (stitched panorama).



The Aylesbury Link railway line on a low embankment occupies the centre of the view with the vegetation of the low embankment partially screening the views to the south and north. The Greatmoor EfW facility is very prominent in the view of the left of the picture and Sheephouse Wood SSSI can be seen on the right and Dunsty Hill on the left, in the background. The Mega Ditch is between the Greatmoor EfW facility and the railway line. The Greatmoor Railway Sidings site is immediately to the right of the line, extending from the foreground to Sheephouse Wood SSSI.

Viewpoint 146.3.005: Views north-west and south-east from the bridge over the Aylesbury Link (Footpath GUN28)

This view is representative of recreational users' views south-east from the bridge over the Aylesbury Link railway line (Footpath GUN 28). NB: the footpath will be closed during construction.

Viewpoint 146.3.005. Date taken: 21 April 2016. Nikon D3200, 35mm lens (stitched panorama)



The Aylesbury Link railway line on a low embankment occupies the centre of the view. Vegetation on the low embankment partially screens view to the east and west. The private access road from the A41 to the Greatmoor EfW facility and the Calvert landfill site, lined with scrub, can be seen on the right, beyond the Aylesbury Link railway line. The wooded Lodge Hill, location of Waddesdon Manor (not visible) is in the background, on the right of the picture. A line of pylons crosses the view.

Viewpoint 145.2.003: View north-east from Grendon Underwood

This view is representative of views from dwellings in Grendon Underwood.

Viewpoint 145.2.003. Date taken: 22 June 2016. Nikon D3200, 35mm lens (stitched panorama)



The open foreground view is of agricultural land, divided by hedgerows with individual trees. The Greatmoor EfW facility is clearly visible, above intervening vegetation in the distance. Sheephouse Wood SSSI on the left of the picture and Finemere Wood SSSI on rising ground is on the right.

4 Schedule of non-significant effects

4.1 Effects arising from construction

Table 8: Landscape assessment - non-significant construction effects

Landscape character areas	Description of effect
Calvert Clay Pits LCA	<p>The construction of the sidings, the construction of the overbridges and the realignment of the access road will take place east of the boundary of the LCA, beyond the Aylesbury Link railway line. There will be no direct effect on the LCA and therefore no loss of trees, woodland or scrub. Impacts on the character of the area will result from the presence of construction plant, site accommodation, fencing, hard standing and temporary materials stockpiles. The part of the LCA nearest the Proposed Scheme is currently in use as the Calvert landfill site. Construction activity will introduce vehicles, disturbance and lighting into the area, but tranquillity in the LCA is already low due to the operation of the Calvert landfill site. Construction traffic moving materials will use a route through the Calvert landfill site from Station Road overbridge satellite compound and will therefore pass through the LCA.</p> <p>The screening effect of Sheephouse Wood SSSI and the vegetation growing around the margins of the Calvert landfill site means that the works will affect a relatively small proportion of the LCA. Where they are apparent, they will be seen in the context of the Calvert landfill site and the Greatmoor EfW facility to the south-east. The works will be largely inconspicuous in the character area therefore. Consequently the magnitude of change will be low. The low magnitude of change combined with the low sensitivity of the character area will result in a negligible effect on the Calvert Clay Pits LCA during construction.</p>
Poundon-Charndon Settled Hills LCA	<p>The construction of the sidings, the overbridges and the realignment of the access road will take place east of the LCA, beyond the Calvert landfill site, the Greatmoor EfW facility and the Aylesbury Link railway line. There will be no direct effect on the LCA and construction traffic will not pass through it. Tranquillity in the LCA is already low due to the operation of the Calvert landfill site and the Grendon Young Offender Institution and Springhill Prison.</p> <p>A line of hills including Dunsty Hill and Spring Hill and intervening vegetation will limit the effects of construction to a small proportion of the LCA around the Grendon Young Offender Institution and Springhill Prison on the north-eastern boundary of the LCA. Where the construction works are apparent, they will be seen in the context of the Calvert landfill site and the Greatmoor EfW facility adjacent. The works will be largely inconspicuous in the character area therefore. Consequently, the magnitude of change will be low. The low magnitude of change combined with the medium sensitivity of the character area will result in a minor adverse non-significant effect on the Poundon-Charndon Settled Hills LCA during construction.</p>

Table 9: Visual assessment - non-significant construction effects

Viewpoint	Description of effect
Viewpoint 141.2.001: View north-west from Doddershall House	<p>A rise in the topography north-west of Doddershall House and intervening vegetation in fields and along the banks of the River Ray will screen the construction works from view. The magnitude of change will be negligible.</p> <p>The negligible magnitude of change combined with the high sensitivity of the receptors will result in a negligible effect.</p>
Viewpoint 143.4.003: View north-west from minor road south of Shipton Lee	<p>Vegetation growing along the road, the banks of the River Ray and embankment of the Aylesbury Link railway line will screen the works on the reception sidings from receptors travelling along the road, but the tall plant associated with the construction of the GUN/28 and QUA/36 overbridges will be visible above the trees in the distance, a minimum of 800m away. The construction works will introduce a new feature into the background of the view, but views will be filtered through intervening vegetation. The magnitude of change will be low.</p> <p>The low magnitude of change combined with the low sensitivity of the receptors will result in a minor adverse non-significant effect.</p>
Viewpoint 143.2.001: View north-west from Woodlands Farm	<p>Vegetation growing along the embankment of the Aylesbury Link railway line and between the railway line and access road will be removed, opening up views of the construction of the reception sidings and the realignment of the access road from Woodlands Farm. The construction of the GUN/28 and QUA/36 overbridges will be apparent in the distance, 600m away. The construction works will introduce new features into the view, but the view will be filtered through intervening vegetation. The magnitude of change will be low.</p> <p>The low magnitude of change combined with the high sensitivity of the receptors will result in a minor adverse non-significant effect.</p>
Viewpoint 143.4.004: View north from the minor road south of Greatmoor	<p>Woodland and scrub growing along the GUN/35/1 bridleway and the Greatmoor EfW facility will screen most views of construction at ground level from the road, but the removal of woodland for the realignment of the access road will open up clearer views of the construction works on the access road and reception sidings. Tall plant associated with the construction of the GUN/28 and QUA/36 overbridges and the operational sidings will be visible above the trees. The works will introduce new features into the view, but they will be seen in the context of the Greatmoor EfW facility, stack and plant building through intervening vegetation. The magnitude of change will be low.</p> <p>The low magnitude of change combined with the low sensitivity of the receptors will result in a minor adverse non-significant effect.</p>
Viewpoint 145.2.001: View north-east from Edgcott House and Prune Farm Cottages	<p>Vegetation growing along Lawn Hill, on land south-west of the Greatmoor EfW facility and the Aylesbury Link railway line will screen ground level views of construction on the operational sidings from this location. Tall plant associated with the construction of the GUN/28 and QUA/36 overbridges and operational sidings may be visible above the trees, a minimum of 860m away, from upper floor windows. Woodland and scrub growing along the GUN/35/1 bridleway will screen views of construction works on the access road and reception sidings. The works, if visible, will introduce features into the view but they will be seen in the context of the Greatmoor EfW facility and through intervening vegetation. The magnitude of change will be low.</p> <p>The low magnitude of change combined with the high sensitivity of the receptors will result in a minor adverse non-significant effect.</p>

<p>Viewpoint 145.3.002: View north-west from Spring Hill and the Grendon Young Offender Institution and Springhill Prison</p>	<p>There will be distant, background views of the construction works from Spring Hill, a minimum of 2,000m away. Tall plant used on the construction of the sidings and the GUN/28 and QUA/36 overbridges may break the skyline, as does the existing Greatmoor EfW facility, but their narrow form and light structure means that they will be far less noticeable in the view than the Greatmoor EfW facility. The works will be seen as a new element but as one of a series of components in the wider panoramic view. The magnitude of change will be low.</p> <p>The low magnitude of change combined with the high sensitivity of the receptors will result in a minor adverse non-significant effect.</p>
<p>Viewpoint 145.4.003: View north-east from Lawn Hill to the EFW facility</p>	<p>The construction of the GUN/28 overbridge and the realignment of access road will be clearly visible, a minimum of 650m away. Tall plant used on the construction of the operational sidings will be partly screened by the 52m high Greatmoor EfW facility. Woodland and scrub growing along the GUN/35/1 bridleway will screen views of construction works on the reception sidings. The construction works will introduce features into the view, but they will be seen in the context of the Greatmoor EfW facility building and views will be filtered through intervening vegetation. The magnitude of change will be low.</p> <p>The low magnitude of change combined with the low sensitivity of the receptors will result in a minor adverse non-significant effect.</p>
<p>Viewpoint 145.2.003: View north-east from Grendon Underwood.</p>	<p>Tall plant used on the construction works on the GUN/28 and QUA/36 overbridges and the reception and operational sidings, a minimum of 2,500m away, may be discernible from upper floor windows in houses in Grendon Underwood. Most views of the works will be screened by Doddershall Wood, Grendon Wood, and vegetation growing in back gardens and along field boundaries and the River Ray. The magnitude of change will be low.</p> <p>The low magnitude of change assessed alongside the high sensitivity of the receptor will result in a minor adverse non-significant effect.</p>
<p>Viewpoint 146.3.005: View north-west and south-east from the bridge over the Aylesbury Link railway (Footpath GUN 28)</p>	<p>Impacts on this view have not been assessed because the footpath will be closed during construction.</p>

4.2 Cumulative effects 2017-2019

4.2.1 The significant cumulative effects between 2017 and 2019 are addressed in Chapter 11, Volume 2: Main Environmental Statement.

4.3 Effects arising from operation

Table 10: Landscape assessment - non-significant operation effects

Landscape character areas	Description of effect
Kingswood Wooded Farmland LCA	<p>The sidings, the RMG crane, the Bridleway GUN/28 and the Bridleway QUA/36 accommodation green overbridges and the realigned access road will be situated in the northern end of the Kingswood Wooded Farmland LCA. Impacts on the character of the area will result from the introduction of substantial infrastructure elements into a largely agricultural landscape, though the Calvert landfill site, the Aylesbury Link railway line and the Greatmoor EfW facility west of the site already detract from the rural character of this part of the LCA. The RMG crane, at 22.4m high, will be a tall new feature in the LCA, apparent over a wide area above the surrounding vegetation. The sidings will be flat structures built on sloping land and consequently engineered embankments and cuttings will be required, affecting the natural local topography. The Bridleway GUN/28 overbridge will replace an existing overbridge, but it will be a far wider and taller structure. The Bridleway QUA/36 overbridge will be a substantial new structure in the landscape. The existing GUN/28 overbridge is currently screened from the wider landscape by vegetation growing on the embankments of the bridge and railway line. This will be removed for the construction of the Proposed Scheme. Security fencing will be an uncharacteristic new feature in the landscape, where field boundaries are formed by hedges and low barbed wire fences. The bridges and RMG crane will be apparent in views of Finemere Hill from the southern part of the LCA, one of the distinctive features of the character area.</p> <p>There will be a reduction in tranquillity resulting from the presence of trains, lorries and the operation of the RMG crane, but the Calvert landfill and Greatmoor EfW facility are existing sources of noise and activity and the additional activity will affect only a small proportion of the character area.</p> <p>The Proposed Scheme will affect a small proportion of the LCA, due to the screening effect of the Greatmoor EfW facility, the undulating topography and intervening vegetation: the new features will be largely inconspicuous over the wider area. The magnitude of change will be low in year 1 of operation. The low magnitude of change combined with the high sensitivity of the character area will result in a minor adverse non-significant effect in year 1 of operation.</p> <p>By year 15 of operation, woodland and scrub planting around the scheme and scrub planting on the overbridges will have established, screening the new structures and features at lower levels, but the taller elements, including the overbridges and RMG crane will still be apparent. The new woodland south of Romer Wood and along the PRoW will appear juvenile adjacent to the mature woodland and will not have fully integrated into the surrounding landscape. The magnitude of change will remain low. The low magnitude of change combined with the high sensitivity of the character area will result in a minor adverse non-significant effect in year 15 of operation.</p> <p>By year 60, mitigation planting will be mature and the overbridges will be fully integrated into the surrounding landscape. The RMG crane will still be apparent in a small area of the LCA. The magnitude of change will reduce to negligible. The negligible magnitude of change, assessed alongside the high sensitivity of the character area, will result in a negligible effect in year 60 of operation.</p> <p>The sidings will be lit at night and there will be down lighting on the RMG crane, effectively creating a column of light 22m high below it. This additional lighting will be a source of obtrusive light but it will be seen in the context of other existing sources of street lighting to the south-west of the Proposed Scheme such as the Greatmoor</p>

	<p>EfW facility, the Grendon Young Offender Institution and Springhill Prison. Therefore the magnitude of change to this receptor at night is considered to be low, resulting in a minor adverse non-significant effect on night-time landscape character.</p>
<p>Finemere Hill LCA</p>	<p>The sidings and the Bridleway GUN/28 and the Bridleway QUA/36 overbridges road will be situated outside the LCA, near to the south-western boundary. Impacts on the character of the area will result from the introduction of a new infrastructural element into a largely agricultural landscape, though the Calvert landfill site, the Aylesbury Link railway line and the Greatmoor EfW facility west of the site already detract from the rural character of the area. The RMG crane will be a tall new feature in the landscape, apparent above the surrounding vegetation. The Bridleway GUN/28 overbridge will replace an existing overbridge, but at 48m wide and 11.5m high (to top of soil levels), it will be a far wider and taller structure. The Bridleway QUA/36 overbridge, at 35m wide and 11.5m high (to top of soil level), will also be a substantial new structure in the landscape. New woodland planting south of Romer Wood and Greatsea Wood will increase woodland cover in the area - a key characteristic of the LCA.</p> <p>There will be a reduction in the tranquillity resulting from the presence of trains, lorries and the operation of the RMG crane, but the Calvert landfill and Greatmoor EfW facility are existing sources of noise and activity.</p> <p>The Proposed Scheme will affect a small proportion of the LCA due to the screening effect of the Greatsea Wood, Romer Wood and Finemere Wood SSSI, and the new features will be largely inconspicuous over the wider area. The magnitude of change will be low in year 1 of operation. The low magnitude of change combined with the high sensitivity of the character area will result in a minor adverse non-significant effect in year 1 of operation.</p> <p>By year 15 of operation, woodland and scrub planting around the scheme and scrub planting on the overbridges will have established, screening the new structures at lower levels, but the taller elements, including the overbridges and RMG crane will still be apparent. The new woodland south of Romer Wood and along the GUN/28/1, GUN/29/1 and GUN/33/1 bridleways will appear juvenile adjacent to the mature woodland and will not have fully integrated into the surrounding landscape. The magnitude of change will remain low. The low magnitude of change combined with the high sensitivity of the character area will result in a minor adverse non-significant effect in year 15 of operation.</p> <p>By year 60, mitigation planting will be mature and the overbridges will be fully integrated into the surrounding landscape. The RMG crane will still be apparent in a small area of the LCA. The magnitude of change will reduce to negligible. The negligible magnitude of change, assessed alongside the high sensitivity of the character area, will result in a negligible effect in year 60 of operation.</p> <p>The street lighting on the sidings and a column of light 22m high below the RMG crane will be a source of obtrusive light in an area which is currently fairly dark, but it will be seen in the context of other existing sources of street lighting to the south-west of the Proposed Scheme. The magnitude of change to the LCA at night will be low, resulting in a minor adverse non-significant effect on night-time landscape character.</p>
<p>Claydon Bowl LCA</p>	<p>The sidings and the overbridges will be situated outside the LCA, near its southern and south-western boundary. Impacts on the character of the area will result from the introduction of new infrastructural elements into a largely agricultural landscape, though the Calvert landfill site, the Aylesbury Link railway line and the Greatmoor EfW facility already detract from the rural character of this part of the LCA. The RMG crane will be a tall new feature in the area, apparent above the surrounding vegetation. The Bridleway GUN/28 overbridge will replace an existing overbridge, but it will be a far wider and taller structure. The Bridleway QUA/36 overbridge will also be a substantial new structure in the landscape.</p> <p>There will be a reduction in tranquillity resulting from the presence of trains, lorries and the operation of the RMG crane, but the Calvert landfill and Greatmoor EfW facility are existing sources of noise and activity.</p>

	<p>The Proposed Scheme will affect a small proportion of the LCA, due to the screening effect of the Sheephouse Wood SSSI, Home Wood and Romer Wood, and the new features will be largely inconspicuous over a wider area. The magnitude of change will be low in year 1 of operation. The low magnitude of change combined with the high sensitivity of the character area will result in a minor adverse non-significant effect in year 1 of operation.</p> <p>By year 15 of operation, woodland and scrub planting around the scheme and the scrub planting on the overbridges will have established, screening the new structures at lower levels, but the taller elements, including the overbridges and RMG crane will still be apparent. The new woodland along the PRoW will appear juvenile adjacent to the mature woodland and will not have fully integrated into the surrounding landscape. The magnitude of change will remain low. The low magnitude of change combined with the high sensitivity of the character area will result in a minor adverse non-significant effect in year 15 of operation.</p> <p>By year 60, mitigation planting will be fully mature and the overbridge and RMG crane will be fully integrated into the surrounding landscape. The magnitude of change will reduce to negligible. The negligible magnitude of change, assessed alongside the high sensitivity of the character area, will result in a negligible effect in year 60 of operation.</p> <p>The street lighting on the sidings and a column of light 22m high below the RMG crane will be a source of obtrusive light in an area which is currently fairly dark, but it will be seen in the context of other existing sources of street lighting to the south-west of the Proposed Scheme. The magnitude of change to the LCA at night will be low, resulting in a minor adverse non-significant effect on night-time landscape character.</p>
<p>Calvert Clay Pits LCA</p>	<p>The sidings, the overbridges and the realigned access road will be outside the LCA, near its south-eastern boundary. There will be no direct effect on the LCA and the part of the character area nearest the Proposed Scheme is currently in use as the Calvert landfill site. The Proposed Scheme will introduce new infrastructure elements into an area which already includes the Calvert landfill site, the Aylesbury Link railway line and the Greatmoor EFW facility. The sidings and overbridge will be largely screened from the LCA by the Aylesbury Link railway line, the Greatmoor EFW facility and Sheephouse Wood SSSI. Existing vegetation around the Calvert landfill site and Greatmoor EFW facility will also screen the realigned access road.</p> <p>There will be a reduction in tranquillity resulting from the presence of trains, lorries and the operation of the RMG crane, but the Calvert landfill and Greatmoor EFW facility are existing sources of noise and activity. The sidings will be lit at night, but the Greatmoor EFW facility and parts of the Calvert landfill site are also lit and consequently the area is not currently dark.</p> <p>The Proposed Scheme will introduce new features into the landscape that are characteristic of their infrastructure setting. It will affect a small proportion of the LCA, due to the screening effect of vegetation, the railway embankment and the Greatmoor EFW facility. The magnitude of change will be negligible in years 1, 15 and 60 of operation. The negligible magnitude of change combined with the low sensitivity of the character area will result in negligible effects in years 1, 15 and 60 of operation.</p> <p>The street lighting on the sidings and a column of light 22m high below the RMG crane will be a source of obtrusive light, but the area is not currently dark. It will be seen in the context of other existing sources of street lighting to the south-west of the Proposed Scheme. The magnitude of change to the LCA at night will be negligible, resulting in a negligible effect on night-time landscape character.</p>
<p>Poundon-Charndon Settled Hills LCA</p>	<p>The Proposed Scheme will introduce new features into the landscape that are characteristic of their infrastructure setting. It will affect a small proportion of the LCA, due to the screening effect of vegetation, the railway embankment and the Greatmoor EFW facility. The magnitude of change will be negligible in years 1, 15 and 60 of operation. The negligible magnitude of change combined with the medium sensitivity of the character area will result in negligible non-significant effects in years 1, 15 and 60 of operation.</p>

	The street lighting on the sidings and a column of light below the RMG crane will be a source of obtrusive light, but the area is not currently dark. It will be seen in the context of other existing sources of street lighting to the south-west of the Proposed Scheme. The magnitude of change to the LCA at night will be negligible, resulting in a negligible non-significant effect on night-time landscape character.
--	---

Table 11: Visual assessment - non-significant operation effects

Viewpoint	Description of effect
Viewpoint 141.2.001: View north-west from Doddershall House	<p>A rise in the topography north-west of Doddershall House and intervening vegetation in fields and along the banks of the River Ray will screen the scheme in operation from view. The magnitude of change will be negligible in years 1, 15 and 60. The negligible magnitude of change combined with the high sensitivity of the receptors will result in a negligible effect in years 1, 15 and 60 of operation.</p> <p>Lighting on the sidings and the RMG crane is unlikely to be apparent from this location. The magnitude of change to this receptor at night is considered to be negligible, resulting in negligible effects.</p>
Viewpoint 143.4.003: View north-west from minor road south of Shipton Lee	<p>Vegetation growing along the road, the banks of the River Ray and the embankment of the Aylesbury Link railway line will screen the Proposed Scheme from this location. The magnitude of change will be negligible in years 1, 15 and 60 of operation. The negligible low magnitude of change combined with the low sensitivity of the receptors will result in a minor adverse non-significant effect in years 1, 15 and 60 of operation.</p> <p>Lighting on the sidings and the RMG crane is unlikely to be apparent from this location. The magnitude of change to this receptor at night will be negligible, resulting in negligible effects.</p>
Viewpoint 143.2.001: View north-west from Woodlands Farm	<p>The removal of vegetation during construction will open up filtered views of the 11.5m high QUA/36 and GUN/28 overbridges and the 22.4m high RMG crane on the operational sidings. The QUA/36 overbridge 600m away and the GUN/28 overbridge beyond will be new features in the view; the crane will be a new feature in the background. Views of the overbridges and the crane will be filtered through intervening vegetation growing on the south-western side of the railway line. The magnitude of change will be low in year 1 of operation. The low magnitude of change combined with the high sensitivity of the receptors will result in a minor adverse non-significant effect in year 1 of operation.</p> <p>By year 15 and beyond, the mitigation planting on and around the overbridges will have matured and the overbridges and RMG crane will be further screened. The magnitude of change will reduce to negligible. The negligible magnitude of change combined with the high sensitivity of the receptors will result in a negligible non-significant effect in years 15 and 60 of operation.</p> <p>Lighting on the sidings and the RMG crane will be faintly perceptible in the background, but seen against a baseline view featuring existing lighting from Calvert landfill site, the Greatmoor EfW facility and Calvert village. The magnitude of change to this receptor at night will be negligible, resulting in negligible effects.</p>
Viewpoint 143.4.004: View north from the minor road south of Greatmoor	<p>Woodland and scrub growing along the GUN/35/1 bridleway and the Greatmoor EfW facility will screen most views of the Proposed Scheme at ground level from the road, but the removal of woodland for the realignment of the access road will open up clear views of the overbridges a minimum of 700m away. The 22.4m high RMG crane on the operational sidings will be partly screened by the 52m high Greatmoor EfW facility. The overbridges and RMG crane will be new features in the view from the road, but they will be seen in the context of the Greatmoor EfW facility and views will be filtered through intervening vegetation. The magnitude of change will be</p>

low in year 1 of operation. The low magnitude of change combined with the low sensitivity of the receptors will result in a minor adverse non-significant effect in year 1 of operation.

By year 15 and beyond, the mitigation planting on and around the overbridges, around the Greatmoor EfW facility and adjacent to the realigned access road will have matured and the overbridges and RMG crane will be further screened. The magnitude of change will reduce to negligible. The negligible magnitude of change combined with the low sensitivity of the receptors will result in a negligible non-significant effect in years 15 and 60 of operation.

Lighting on the sidings and the RMG crane will be faintly perceptible in the background, but seen against a baseline view featuring existing lighting from Calvert landfill site and the Greatmoor EfW facility. The magnitude of change to this receptor at night will be negligible, resulting in negligible effects.

Viewpoint 145.2.001:
View north-east from
Edgcott House and
Prune Farm

The belt of vegetation along the north-eastern side of Lawn Hill, on land south-west of the Greatmoor EfW facility and along the Aylesbury Link railway line will screen ground level views of the Proposed Scheme from this location. The GUN/28 overbridge and RMG crane on the operational sidings may be visible above the trees, a minimum of 860m away, from upper floor windows though. Woodland and scrub growing along the GUN/35/1 bridleway will screen views of the realigned access road and reception sidings. The overbridge and crane will, if visible, introduce new features into the view, but they will be seen in the context of the chimney and main building of the Greatmoor EfW facility. The magnitude of change will be low in year 1 of operation. The low magnitude of change combined with the high sensitivity of the receptors will result in a minor adverse non-significant effect in year 1 of operation.

By year 15 and beyond, the planting along Lawn Hill will have grown taller and the mitigation planting on and around the overbridge, around the Greatmoor EfW facility and adjacent to the realigned access road will have matured. The overbridge and RMG crane will be further screened. The magnitude of change will reduce to negligible. The negligible magnitude of change combined with the high sensitivity of the receptors will result in a negligible non-significant effect in years 15 and 60 of operation.

Lighting on the sidings and the RMG crane will be perceptible in the background, but seen against a baseline view featuring existing lighting from Calvert landfill site and the Greatmoor EfW facility. Therefore the magnitude of change to this receptor at night will be negligible, resulting in negligible effects.

Viewpoint 145.3.002:
View north-west from
Spring Hill and the
Grendon Young
Offender Institution
and Springhill Prison

Woodland, scrub and hedgerows will screen most views of the Proposed Scheme. The overbridges and RMG crane on the operational sidings will be partly screened by the Greatmoor EfW facility, or if visible, will be in the background of the view above intervening vegetation, a minimum of 2,000m away. The overbridges and crane will be inconspicuous elements in the wider panoramic view. The magnitude of change will be negligible in years 1, 15 and 60 of operation. The negligible magnitude of change combined with the high sensitivity of the receptors will result in a negligible non-significant effect in years 1, 15 and 60 of operation.

Lighting on the sidings and the RMG crane will be perceptible in the background, but seen against a baseline view featuring existing lighting from Calvert landfill site and Greatmoor EfW facility. The magnitude of change to this receptor at night will be negligible, resulting in negligible effects.

Viewpoint 145.4.003:
View north-east from
Lawn Hill to the EFW
facility

The sidings will be largely screened by intervening vegetation and the Aylesbury Link railway line embankment. The overbridges and realigned access road will be visible in the middle ground, 650m away. The RMG crane in the operational sidings will be partly screened by the much taller Greatmoor EfW facility. The overbridge, road and crane will be new features in the view but one that will be characteristic of their infrastructure setting. The magnitude of change will be low in year 1 of operation. The low magnitude of change combined with the low sensitivity of the receptors will result in a minor adverse non-significant effect in year 1 of operation.

By year 15 and beyond, the mitigation planting on the embankments of the Bridleway GUN/28 overbridge and adjacent to the realigned access road will have matured. The overbridge and RMG crane will be further screened. The magnitude of change will reduce to negligible. The negligible magnitude of change combined with the high sensitivity of the receptors will result in a negligible effect in years 15 and 60 of operation.

A photomontage illustrating the view from Lawn Hill during year 1 of operation is in Volume 3: Environmental Statement Maps.

Lighting on the sidings and the RMG crane will be perceptible in the background, but seen against a baseline view featuring existing lighting from the Greatmoor EfW facility. The magnitude of change to this receptor at night will be negligible, resulting in negligible effects.

Viewpoint 145.2.003:
View north-east from
Grendon Underwood

Woodland, scrub and hedgerows will screen most views of the Proposed Scheme. The overbridges and RMG crane on the operational sidings will be partly screened by the Greatmoor EfW facility, or if visible, will be in the background of the view above intervening vegetation, a minimum of 2.6km away. The overbridges and crane will be inconspicuous elements in the wider panoramic view. The magnitude of change will be negligible in years 1, 15 and 60 of operation. The negligible magnitude of change combined with the high sensitivity of the receptors will result in a negligible non-significant effect in years 1, 15 and 60 of operation.

Lighting on the sidings and the RMG crane will be perceptible in the background, but seen against a baseline view featuring existing lighting from Calvert Green, Calvert landfill site and the Greatmoor EfW facility. The magnitude of change to this receptor at night will be negligible, resulting in negligible effects.

Viewpoint 148.2.001:
View south-west from
Knowlhill Farm

The GUN/28 overbridge, office and welfare facilities and the RMG crane and the reception sidings, a minimum of 900m away, will be visible from Knowlhill Farm. The south-eastern edge of Sheephouse Wood SSSI will screen part of the operational sidings. The bridge, crane and sidings will be new features in the view, but they will be seen in the context of existing industrial and urban features including the Greatmoor EfW facility, the Aylesbury Link railway line and large-scale agricultural buildings. The sidings will occupy a narrow horizontal strip of the view. The magnitude of change will be low in year 1 of operation. The low magnitude of change assessed alongside the high sensitivity of the receptor will result in a minor adverse non-significant effect in year 1 of operation.

By year 15 and beyond, the new woodland planting along Bridleway GUN28/1 and between Footpath GUN/31/1 and the overbridge will have established. The sidings will be screened from view and views of the overbridge and crane will be screened or filtered. The magnitude of change will reduce to negligible. The negligible magnitude of change assessed alongside the high sensitivity of the receptor will result in a negligible non-significant effect in years 15 and 60 of operation.

Lighting on the sidings and the RMG crane will be perceptible against a baseline view featuring existing lighting from the Greatmoor EfW facility and Grendon Young Offender Institution and Springhill Prison. The magnitude of change to this receptor at night will be low, resulting in minor adverse, non-significant effects.

4.4 Cumulative effects 2019 onwards

4.4.1 No significant cumulative effects are predicted for either landscape character or views during operation as discussed in Chapter 11, Volume 2: Main Environmental Statement.

