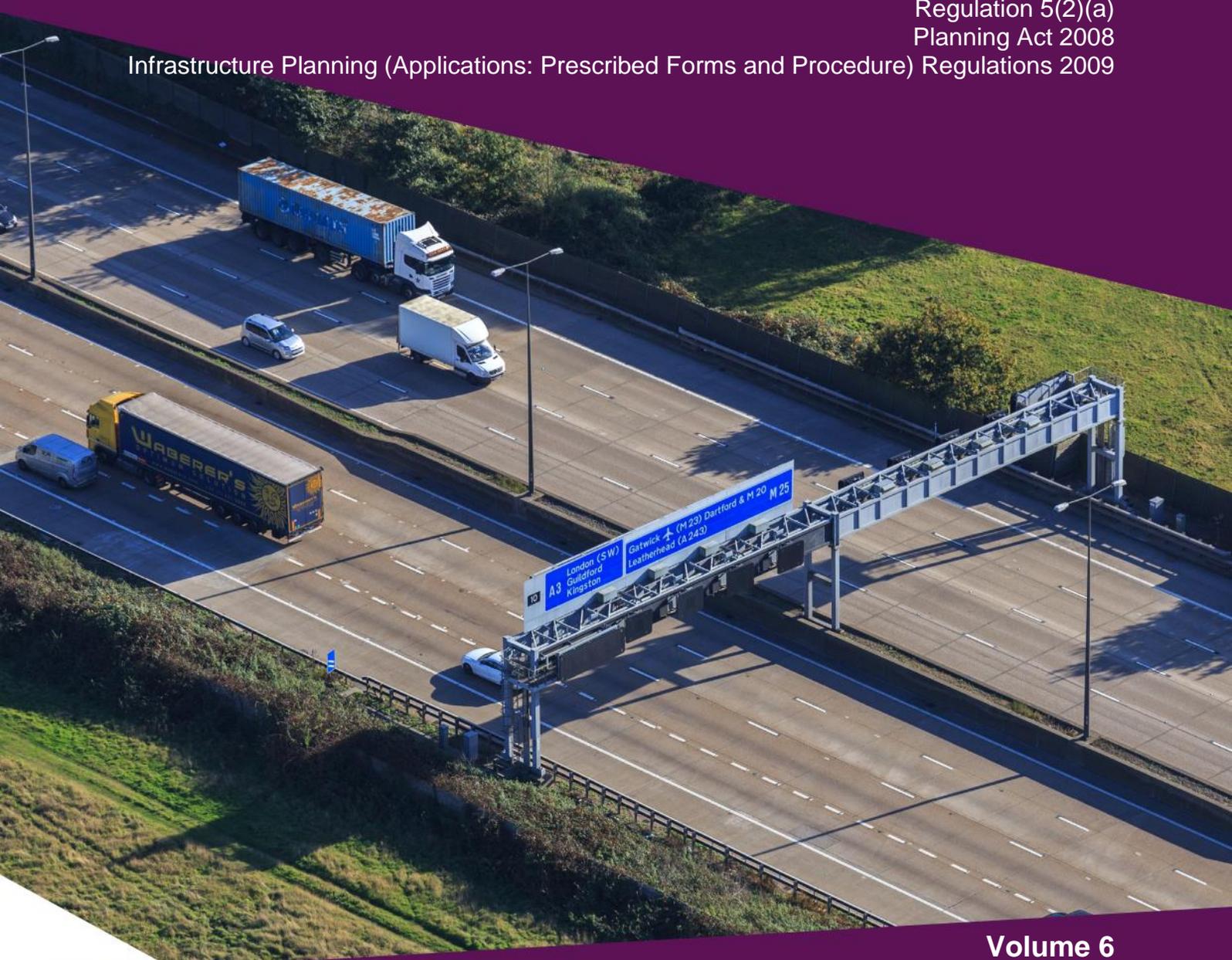


# M23 junction 10/A3 Wisley interchange TR010030

## 6.3 Environmental Statement Chapter 13: People and communities

Regulation 5(2)(a)  
Planning Act 2008

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



## Infrastructure Planning

### Planning Act 2008

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

### M25 junction 10/A3 Wisley interchange

#### The M25 junction 10/A3 Wisley interchange Development Consent Order 202[x ]

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### 6.3 ENVIRONMENTAL STATEMENT CHAPTER 13: PEOPLE AND COMMUNITIES

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## 13. People and Communities

### Executive summary

This chapter details the construction and operational effects upon people and communities which are anticipated as part of the Scheme. The potential growth of the area from development schemes will bring more traffic, so without the Scheme to address this, the road network could become congested. Road schemes can have wide ranging and varied effects on local communities and road users. This chapter has aimed to assess these effects and a number of assessments have been undertaken including impacts upon private dwellings, community assets, local businesses, agricultural land, development land and non-motorised users.

The private dwellings assessment identified a moderate adverse effect during construction at the former San Domenico restaurant site due to demolition of this residential accommodation. No significant effects are anticipated due to land take and severance.

The community assets assessment considered the impacts upon common land, other public spaces and community facilities such as places of worship and schools. A significant adverse effect was observed at Ockham Common and other open space during construction.

The Scheme's impacts were assessed upon businesses through land take, severance, disruption and employment. A moderate adverse effect was observed at Nutberry Farm car boot sale during construction due to temporary land take.

The agricultural land assessment considered the impacts upon farms and agricultural soils. The Scheme will involve the permanent loss of farm land at Park Barn Farm which is considered a significant adverse effect. Temporary land taken from farms will be returned to their original condition.

Sites allocated for development, or sites with extant permissions were assessed in relation to the Scheme - there will be minor adverse effects during construction, due to changes to access and temporary land take.

Significant adverse effects are anticipated for non-motorised users (NMUs) during construction for some cycle and pedestrian routes which will be temporarily closed or re-routed. Significant adverse effects are expected at Painshill and Ockham junction pedestrian crossings, Old Byfleet Road and some equestrian routes. Once operational, the Scheme is anticipated to provide benefits to NMUs with increased and better-connected routes.

The vehicle traveller's assessment considered impacts upon views from the road and driver stress, which found that there would be moderate negative impacts during construction work, which would reduce once replacement planting had matured. The assessment showed that on most roads there would be no significant changes to driver stress as a result of works.

Cumulative effects are anticipated in terms of impacts upon people and communities, through various potential developments nearby.

## 13.1 Introduction

13.1.1 This chapter describes the anticipated construction and operational effects of the Scheme on people and communities within the Scheme boundary and study area. The assessment has been undertaken for the following sub-topic areas which provide the framework throughout the chapter:

- Private dwellings;
- Community assets;
- Local businesses and local economy;
- Agricultural land;
- Development land;
- Non-motorised users (NMU) - pedestrians, cyclists and equestrians; and
- Vehicle travellers (VT) - drivers and passengers of both public and private vehicles.

13.1.2 Existing conditions have been reviewed to establish the baseline against which the likely effects from the construction and operation of the Scheme have been assessed.

13.1.3 By their nature, road schemes can have wide ranging and varied effects on those communities in the vicinity and the various users of the road network. This chapter has aimed to assess these effects, in some places drawing on assessments in other sections of this ES, for example, noise, air quality and landscape all of which affect amenity of local communities, residents and road users.

13.1.4 The assessment sub-topics and methodology followed is in accordance with the guidance provided in the DMRB Volume 11, Section 3, Parts 6, 8 and 9 and Interim Advice Note (IAN) 125/15 Environmental Assessment Update. Amenity effects on people and communities including air quality, noise and landscape effects, are covered in detail in Chapters 5, 6 and 9 of this ES.

13.1.5 Health impacts are considered in Chapter 14 of this ES (DCO application document TR010030/APP/6.3) as a separate assessment.

## 13.2 Competent expert evidence

13.2.1 This people and communities chapter has been undertaken by the following individuals who have used their knowledge and professional judgement, knowledge and best practice to undertake this assessment:

- a qualified Principal Town Planner (BSc (Hons) MA, MRTPI); who is a Chartered member of the Royal Town Planning Institute and has 15 years of knowledge and experience in town planning, with specific experience in NSIP and DCO projects;
- a qualified Principal Town Planner (BSc (Hons) MCD, MRTPI) who is a Chartered member of the Royal Town Planning Institute and has 8 years of knowledge and experience in town planning, with specific experience in NSIP infrastructure projects;

- a qualified Senior Planner (BSc (Hons), MSc) who holds licentiate membership of the Royal Town Planning Institute and has over 4 years of knowledge and experience in planning assessments and planning policy;
- a qualified Assistant Planner (BA (Hons), MSc), who holds licentiate membership of the Royal Town Planning Institute and has 2 years of knowledge and professional experience in planning assessments, development management and planning research;
- a qualified Assistant Planner (MTCP (Hons)); who is a licentiate member of the Royal Town Planning Institute and has 6 years of knowledge and experience in town planning, with specific experience in people and communities assessments for DCO highways projects;
- a qualified Senior Economist (BA Econ) who is a member of the Institute of Economic development with over 7 years of experience in socio economic impact assessment, covering NSIP projects, and an ongoing HS2 SEIA review role;
- a qualified Assistant Economist (BA (Hons))who is a member of the Institute of Economic development with over a year of experience in economic assessments and analysis including socio economic impact assessments and business impact assessment of NSIP projects; and
- a qualified agricultural and soils expert (BA (Hons) Geography, MSc Soil Survey and Pedology) who holds professional membership with the British Society of Soil Science and has 28 years of knowledge and experience in agricultural land assessments for infrastructure projects.

### 13.3 Legislative and policy framework

13.3.1 National, regional and local policy relevant to the scope of potential impacts on people and communities is outlined in Table 13.1 below which have been guided the design of the Scheme.

**Table 13.1: Legislation, regulatory and policy framework for people and communities**

Legislation/regulation	Summary of requirements
<b>National</b>	
National Policy Statement for National Networks (NN NPS) 2014	<p>The NN NPS sets out the need for development of road, rail and strategic rail freight interchange projects on the national networks and the policy against which decisions on major road and rail projects will be made.</p> <p>The Government’s vision and strategic objectives for the national networks include improving overall quality of life, journey quality, reliability and safety and linking up communities. Junction improvement is cited as a measure which will be used to enhance the existing national road network towards this vision (paragraph 2.23).</p> <p>The NN NPS establishes the expectation that delivery of new schemes will improve quality of life and avoid and mitigate environmental and social impacts in line with the principles set out in the NPPF and the Government’s planning guidance (paragraph 3.3). Schemes will also be expected to improve accessibility and inclusivity and reduce community severance, to contribute to a</p>

Legislation/regulation	Summary of requirements
	<p>network that provides a range of opportunities and choices for people to connect with jobs, services and friends and family (paragraph 3.19).</p> <p>Although it does not provide specific guidance for people and communities impacts, the NN NPS outlines the approach to land use which is of relevance to this assessment. Applicants should identify existing and proposed land uses, including Best and Most Versatile (BMV) agricultural land, in the vicinity of the Scheme and the likely effects on these (paragraphs 5.165 and 5.168).</p> <p>Access to high quality open spaces, Public Rights of Way (PRoW), the countryside and opportunities for sport and recreation can be a means of providing mitigation and/or compensation requirements for developments (paragraphs 5.162 and 5.184).</p>
<p>National Planning Policy Framework (NPPF) 2019</p>	<p>The NPPF sets out Government's planning policies to achieve sustainable development under three overarching objectives, these are economic, social and environmental objectives.</p> <p>The economic objective aims to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure.</p> <p>The social objective aims to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being. Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, considering both local business needs and wider opportunities for development. (Paragraph 80).</p> <p>Planning should thus promote safe, accessible environments and to enhance the sustainability of communities and residential environments. There should be positive planning for the use of public areas and shared space, and protect valued facilities and services including open space, sports venues, public houses, places of worship and local established shops (Paragraphs 91-93). Existing open space, sports and recreational buildings and land, including playing fields, should not be built on unless for specific conditions (Paragraph 97). Paragraph 98 states policies should protect and enhance public rights of way (PRoW) and access. Local authorities should seek opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails.</p> <p>The NPPF states that the system needs to be balanced in favour of sustainable transport modes, where significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. Chapter 9 'Promoting Sustainable Transport' emphasises how transport should be considered early within the context of planning decisions and sustainable development. This policy encourages solutions that</p>

Legislation/regulation	Summary of requirements
	<p>seek to reduce congestion, greenhouse gas emissions and serve to facilitate the use of sustainable transport, transport technology options and parking and patterns of movement to be integrated into the design for environmental and social benefits (paragraph 102). Furthermore, local planning authorities (LPAs) are required to identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development.</p> <p>Other sections of the NPPF that influence people and communities, are described below:</p> <ul style="list-style-type: none"> <li>• NPPF11 Making effective use of land: safeguarding and improving the environment and ensuring safe and healthy living conditions; and securing well-designed, attractive and healthy places.</li> <li>• NPPF12 Achieving well-designed places: creating places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.</li> <li>• NPPF15 Conserving and enhancing the natural environment: ensuring that new development is appropriate for its location taking into account the likely effects of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development; and mitigating and reducing to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life.</li> </ul>
Countryside and Rights of Way Act 2008	<p>The Countryside and Rights of Way Act 2008 (CRoW) regulates all PRow and ensures access to them. It requires local highway authorities to publish a Rights of Way Improvement Plan (RoWIP), which should be reviewed every 10 years. The Act also obliges the highway authority to recognise the needs of the mobility impaired when undertaking improvements.</p>
Road Investment Strategy (RIS) and Strategic Business Plan 2015	<p>This strategy aims to improve connectivity, safety, air quality and road user satisfaction, boost the economy whilst reducing noise and negative environmental impacts all of which will have an impact on local communities and people.</p> <p>It also recognises the importance of the network accounting for the needs of walkers and cyclists, and not act as a deterrent to active travel options. The network must be easier to get over, under or around to ensure that roads do not divide communities, and that the associated health and wellbeing benefits of walking and cycling are felt as widely as possible.</p>
The Commons Act 2006	<p>The Commons Act 2006 (the Act) protects common land and town or village greens. This includes reinforcing existing protections against abuse, encroachment and unauthorised development. It recognises that the protection of common land must be proportionate to the harm caused and that some specified works can be carried out without the need for consent. The Act provides for the release of land providing there is a provision of suitable “replacement land”.</p>

Legislation/regulation	Summary of requirements
<p>Planning Act 2008</p>	<p>The Planning Act 2008 sets out, inter alia, the DCO process and land acquisition procedures for NSIPs. The Scheme would require the acquisition of areas of registered common land and other open space as defined under the Countryside and Rights of Way Act 2000. Such land is defined as Special Category Land.</p> <p>The compulsory purchase of land is covered in Sections 122-132 of the Planning Act, of which Sections 122 and 131 are relevant to compulsory acquisition of Special Category Land. Section 132 covers the compulsory acquisition of rights over Special Category Land.</p> <p>The identification and selection of appropriate locations for use as Replacement Land must satisfy the definition given in the 2008 Planning Act:</p> <p>“replacement land” means land which is not less in area than the order land and which is no less advantageous to the persons, if any, entitled to rights of common or other rights, and to the public.”</p>
<p>Natural England December 2012 Technical Information Note 049 (TIN049), 'Agricultural Land Classification: protecting the best and most versatile agricultural land.'</p>	<p>This states that for planning applications, specific consultations with Natural England are required under the Development Management Procedure Order in relation to BMV agricultural land. These are for non-agricultural development proposals that are not consistent with an adopted local plan and involve the loss of 20 ha or more of BMV land.</p>
<b>Regional</b>	
<p>Surrey County Council Surrey Transport Plan Public Rights of Way Improvement Plan (2014)</p>	<p>Rights of Way Improvement Plans are intended to be the main way in which local highway authorities identify the changes that need to be made to the local rights of way network to make it more useful to the public.</p> <p>Surrey County Council first published their Public Rights of Way Improvement Plan in 2007 and revised it in 2014.</p> <p>The Rights of Way Improvement Plan is part of the Surrey County Council Transport Plan. The Surrey Transport Plan recognises the opportunity the Rights of Way Improvement Plan represents to maximise the contribution that local rights of way can make to the delivery of accessibility and wider quality of life issues, such as healthier communities and better access to public spaces, particularly in rural areas.</p>
<p>Surrey County Council Surrey Transport Plan - Cycling Strategy (2014- 2026)</p>	<p>The Cycling Strategy sets out how cycling will be supported as an important element of plans to tackle congestion, improve travel choice and journey time reliability, improve the health and wellbeing of residents and reduce carbon emissions.</p> <p>It aims to get more people in Surrey cycling, more safely.</p>
<b>Local</b>	
<p>Elmbridge Borough Council Core Strategy 2011</p>	<p>The Elmbridge Core Strategy (2011) include spatial policy CS10 'Cobham, Oxshott, Stoke D'Abernon and Downside' promotes improved access to and within the area for pedestrians and cyclists, public transport users and those with impaired mobility.</p> <p>Policy CS14 'Green Infrastructure' recognises that agricultural land plays a key role in maintaining areas of Green Belt.</p>

Legislation/regulation	Summary of requirements
	<p>Policy CS16 'Social and Community Infrastructure' resists the loss of existing social and community facilities or sites.</p> <p>Policy CS25 'Travel and Accessibility' seeks the protection of existing footpaths, cycleways and bridleways; and promotes the delivery of new cycling and walking schemes including development that increases permeability and connectivity within and outside the urban area.</p>
<p>Elmbridge Borough Council Local Plan Development Management Plan 2015</p>	<p>The Elmbridge Local Plan Development Management Plan (2015) policy DM19 'Horse-related uses and development' supports proposals to extend and or enhance the recreational value of the bridleway network.</p> <p>Policy DM20 'Open Space and views' promotes the protection of these spaces.</p> <p>Elmbridge have commenced reviewing their Local Plan and a Strategic Options Consultation took place from December 2016 to February 2017. The document set out in para 2.16 that they are aware of 'hot-spots' in the road network and at junctions across the Borough and this will be a key issue for any new Local Plan.</p> <p>A Consultation on Preferred approach to Spatial Strategy Policies - including Site Allocations and Designations is expected shortly and it is anticipated that the Local Plan would be adopted in November-December 2019 after an Examination in Public.</p>
<p>Guildford Borough Council Local Plan 2003 saved policies</p>	<p>In the Guildford Borough Council saved policies Local Plan (2003) Policy M6 'Provision for cyclists and pedestrians' promotes safe and accessible routes for pedestrians and cyclists and encourage increase use.</p> <p>Policy R1 'Loss of Land and Facilities for Sport and Recreation' resists the loss of land and buildings used for or potential for recreation purposes.</p> <p>Policy R5 'Protection of Open Space' seeks to protect existing open spaces in the borough.</p> <p>Policy RE7 Protection of Best and Most Versatile agricultural land, where feasible.</p> <p>Policy CF2 'Loss of Community Facilities' resists the loss of community buildings.</p>
<p>Guildford Borough Council Local Plan December 2017</p>	<p>A new Local Plan for Guildford was consulted on and a Proposed Submission Local Plan was published in December 2017 for independent examination. The public hearings were held between 5 June and 5 July 2018. The interim conclusion by the independent Inspector is that the plan is 'sound' subject to main modifications. The council consulted on the Main Modifications to the Plan between 11 September and 23 October 2018. The Local Plan was adopted on 25<sup>th</sup> April 2019 by Guildford Borough Council.</p> <p>Submission Plan Policy E5: 'Rural Economy' seeks to support economic growth in rural areas. The retention and development of local services and communities such as local shops, meeting places, sports venues, cultural buildings, public houses and places of worship, which respect the character of the countryside will be supported. Agricultural land will be protected as set out in national policy and the economic benefits of the best and most versatile agricultural land will be considered.</p> <p>Submission Plan Policy ID2: 'Supporting the Department for Transport's "Road Investment Scheme" states that Guildford Borough Council is committed to working with Highways England</p>

Legislation/regulation	Summary of requirements
	<p>to facilitate major, long-term improvements to the A3 trunk road and M25 motorway in terms of both capacity and safety, as mandated by the Department for Transport’s “Road Investment Strategy”. As such, promoters of sites close to the A3 and M25 and strategic sites will need to take account of any emerging proposals by Highways England or any other licenced strategic highway authority appointed by the Secretary of State under the Infrastructure Act 2015.</p>
<p>Woking Borough Council Core Strategy 2012</p>	<p>Policy CS16 ‘Infrastructure delivery’ states that the Council will work in partnership with infrastructure service providers to ensure that the infrastructure needed to support development is provided in a timely manner and will support in principle the development of infrastructure projects if they can be justified to support the delivery of the Core Strategy and meet all other requirements of the Development Plan for the area.</p> <p>Policy CS17: ‘Open space, green infrastructure, sport and recreation’ identifies that development involving the loss of open space will not be permitted unless alternative and equivalent or better provision is made available in the vicinity or the development is directly related to the enhancement of the open space.</p> <p>Policy CS19 ‘Social and community infrastructure’ resists the loss of existing social and community facilities or sites unless the Council is satisfied that there is no identified need for its original purpose and that it is not viable for any other social or community use, or adequate alternative facilities will be re-provided.</p> <p>Policy CS21 ‘Design’ seeks proposals which should be designed in an inclusive way to be accessible to all members of the community, regardless of any disability and to encourage sustainable means of travel.</p>
<p>Woking Borough Council Development Management Policies Development Plan 2016</p>	<p>Policy DM1 ‘Green Infrastructure Opportunities’ identifies that the Council supports (i) the creation of footpaths and ‘cycle greenways’ and (ii) the provision of new green infrastructure assets within the Green Belt.</p> <p>Policy DM3 ‘Facilities for outdoor sport and outdoor recreation’ identifies that opportunities should be taken to connect to and enhance the surrounding Green Infrastructure Network.</p> <p>Policy DM17 ‘Public realm’ seeks development which creates or contribute to a safe, attractive, high quality, inclusive and legible public realm which contributes to local character and which encourages appropriate levels of activity and social interaction.</p>

Table Source: Various National, Regional and Local Planning Guidance

## 13.4 Study area

- 13.4.1 In the absence of prescriptive guidance in DMRB Volume 11 and IAN 125/25 and recent guidance from Highways England in May 2018 on the recommended study area for people and communities, the study area has been set based on professional judgement, knowledge and best practice.
- 13.4.2 The following study areas identified in Table 13.2 have been applied to the people and communities assessment and are considered appropriate and likely to capture all relevant effects resulting from the Scheme. This is in line with Highways England Guidance which states that study area should be based on

extent and characteristics of the project and location of projects, characteristics and sensitivity of communities.

**Table 13.2: People and Communities Study Areas**

Receptor	Study area
Private dwellings	Extent of DCO boundary plus a 500 m buffer.
Community assets	Extent of DCO boundary plus a 500 m buffer.
Local businesses and local economy	Local businesses within the extent of DCO boundary plus a 500 m buffer. The local economy at the local authority level comprising the areas under the authority of Woking, Elmbridge and Guildford Borough Councils.
Agricultural land	Agricultural land, land holdings and other land-based rural enterprises whose land is required either temporarily or permanently by the Scheme, or whose access may be affected, with the order limits and up to 250 m outwards.
Development land	Extent of DCO boundary plus a 500 m buffer.
Non-motorised users (NMUs)	Extent of DCO boundary plus a 500 m buffer.
Vehicle Travellers	Extent of DCO boundary plus a 500 m buffer. Driver Stress will also consider the Affected Road Network as set out in Chapter 5 Air Quality.

Table Source: Those areas where deemed effects may be likely to arise

## 13.5 Assessment methodology

13.5.1 The people and communities assessment reviews a range of potential effects. The method of assessment for these potential effects will vary according to the nature of each impact and receptor type. Assessment criteria are presented below for the assessment of the following topic areas:

- Private dwellings:
  - Land Take and changes in access; and
  - Amenity.
- Community assets:
  - Land Take, severance; and
  - Amenity.
- Local businesses and local economy:
  - Land take; and
  - Changes in employment.
- Agricultural land:
  - Changes to farms and other land-based enterprises; and
  - Effect on agricultural soils and best and most versatile (BMV) land.
- Development land.
- Non-motorised users (NMU):

- Severance; and
- Changes in amenity
- Vehicle travellers (VT):
  - Views from the road; and
  - Driver Stress.

13.5.2 In each case, the assessment methodology makes use of guidance provided in DMRB Volume 11 and IAN 125 where applicable.

13.5.3 An Equalities Impact Assessment (EqIA) has been prepared to assess the effects of the Scheme on health, well-being and quality of life and a separate health impact assessment has been undertaken for the Scheme and which is included as Chapter 14 of this ES.

### **Sensitivity of Receptors**

13.5.4 The sensitivity of receptors is determined by their vulnerability to change and their capacity to cope with changes. Determination of sensitivity for receptors for the people and communities' assessment has been based on DMRB guidance (Volume 11 Section 2 Part 5), best practice and knowledge.

13.5.5 Table 13.3 below sets out the sensitivity criteria of receptors, this is based on DMRB guidance<sup>1</sup> (Volume 11 Section 2 Part 5) and best practice.

**Table 13.3 Description of sensitivity of receptors**

Sensitivity	Criteria
Negligible	Receptor/ resource is very low in importance and rarity
Low	Receptor/ resource has low vulnerability to change. Can easily absorb changes due to the following (or similar) reasons: <ul style="list-style-type: none"> <li>• Resource is infrequently used; and</li> <li>• Reasonable alternative facilities, access routes or opportunities available.</li> </ul>
Medium	Receptor has a limited ability to absorb change for the following (or similar) reasons: <ul style="list-style-type: none"> <li>• Resource is semi-frequently used; and</li> <li>• Limited range of reasonable alternative facilities, access routes, or opportunities available.</li> </ul>
High	Receptor is vulnerable to change. Little ability to absorb change for the following (or similar) reasons: <ul style="list-style-type: none"> <li>• Resource is frequently used; and</li> <li>• No reasonable alternative facilities, access routes or opportunities available.</li> </ul>

Table Source: Based on DMRB HA 205/08 Table 2.1

13.5.6 Based on the sensitivity criteria set out above, Table 13.4 sets out the indicative sensitivity of receptors within this assessment.

<sup>1</sup> Highways England (former Highways Agency) 2008. DMRB Volume 11, Section 2, Part 5 HA 205/08 'Assessment and Management of Environmental Effects' Retrieved 2019, from <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section2.htm>

**Table 13.4: Sensitivity of assessment receptors**

Topic	Receptor	Indicative Sensitivity
Private Dwellings	Residential property	High
Community Land and facilities	Designated local green space / valued community facility	High
	Undesignated local green space / non-essential community facility	Low
Community Severance	Essential services/ facilities for local community (required)	High
	Non-essential services/ facilities for local community (desirable).	Low
Local businesses and local economy	Businesses in proximity of the Scheme.	High/Medium
	Local authority economy	Low
	Local authority labour market	Low
Rural enterprises	Farm types or land-based enterprises in which the operation is dependent on the spatial relationship of land to key infrastructure, and where there is a requirement for frequent and regular access between the two, or dependent on the existence on the infrastructure itself, e.g. dairying; irrigated arable cropping and field scale horticulture; intensive livestock or horticultural production; smallholdings and equestrian centres. ALC Grades 1, 2 and 3a is considered to be of high sensitivity.	High
	Farm types or land-based enterprises in which there is a degree of flexibility in the normal course of operations, e.g. combinable arable crops; grazing livestock farms (other than dairying). Agricultural land in ALC Subgrade 3b is considered to be of medium sensitivity.	Medium
	Farm types and land uses undertaken on a semi-commercial or non-commercial basis such as occasional grazing by horses. Agricultural land in ALC Grades 4 and 5 is considered to be of low sensitivity.	Low
	Agricultural land in a long-term state of disuse and reverting to scrub.	Negligible
Development Land	Assigned on a case by case basis based on the individual context of each site.	n/a – assigned on a case by case basis
Non-motorised Users	All NMUs, key sensitive groups include children and young people, older people, women, people with disabilities and people on low incomes (these are often overlapping groups and individuals and groups may be part of more than one of these categories).	High
Vehicular Travellers	People on public transport and in motor vehicles.	Low

Table Source: Adapted from DMRB HA 205/08 Table 2.1 and part based on professional judgement, knowledge and best practice.

13.5.7 For businesses in proximity of the Scheme, the level of sensitivity depends on a range of factors such as how close the business is to the proposed works, to what extent they depend upon a pleasant customer environment and to what extent access may be impacted. The difference in sensitivity is based in part on professional judgement, knowledge and best practice.

### **Magnitude of impact**

13.5.8 To determine significance of effect, each change to a receptor is assessed in relation to the magnitude of impact. The criteria used to determine the magnitude of any change from baseline conditions is presented in Tables 13.6 to 13.20 below. The magnitude of change is primarily derived from the following:

- Geographical scale of impact;
- Duration of impact (temporary, short term, long term);
- Frequency of impact (continuous, intermittent, changeable or constant); and
- Whether the impact is reversible or irreversible.

13.5.9 The criteria for determining the magnitude of impact for each of the identified receptors is provided for each receptor type in the following sections.

### **Significance of Effect**

13.5.10 Significance of effect is the product of the sensitivity of receptors and magnitude of impact. The significance of effects within this assessment is identified according to Table 13.5.

13.5.11 Of the effects described, moderate and major effects are considered ‘significant’.

**Table 13.5: Significance of effects matrix**

Environmental value (Sensitivity)	Magnitude of impact (degree of change)				
	Major	Moderate	Minor	Negligible	No change
Very high	Very large	Large or very large	Moderate or large	Slight	Neutral
High	Large or very large	Moderate or large	Slight or moderate	Slight	Neutral
Medium	Moderate or large	Moderate	Slight	Neutral or slight	Neutral
Low	Slight or moderate	Slight	Neutral or slight	Neutral or slight	Neutral
Negligible	Slight	Neutral or slight	Neutral or slight	Neutral	Neutral

Table Source: Based on DMRB Volume 11, Section 2, Part 5, HA 205/08, Table 2.4

## **Private Dwellings**

### *Land Take and Changes in access*

- 13.5.12 Advice on assessing impacts from the demolition of private property and associated land-take is provided in DMRB Volume 11, Section 3, Part 6<sup>2</sup> Land Use, however this does not include sufficient detail upon which to base assessment criteria beyond reporting the approximate number of units that may be lost. Professional judgement, knowledge and best practice is therefore applied in order to set out criteria against which magnitude and significance shall be assessed.
- 13.5.13 Loss of access to a dwelling without the provision of an alternative access will be considered equivalent to demolition; re-provision of access via a longer or otherwise poorer route will be considered equivalent to large loss of curtilage; re-provision of access along a broadly equivalent route will be considered equivalent to small loss of curtilage.
- 13.5.14 Demolition, loss of land, and alterations to access have been considered as a land take effects. Land take effects may either result in temporary impacts during construction, or permanent impacts occurring during construction. No further land take impact would occur during operation. Impact has been assessed according to the criteria set out in Table 13.6 and loss of land is considered adverse in all cases.

**Table 13.6: Magnitude of impact criteria for land take and severance of private dwellings**

<b>Magnitude</b>	<b>Impact Description</b>
Major (adverse)	Loss of resource and / or quality and integrity of resource; severe damage to key characteristics, features or elements.
Moderate (adverse)	Loss of resource, but not adversely affecting the integrity; partial loss of/ damage to key characteristics, features or elements.
Minor (adverse)	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to one (maybe more) key characteristics, features or elements.
Negligible (adverse)	No loss or detrimental alteration to one or more characteristics, features or elements.
No Change	No loss or alteration of characteristics, features or elements; no observable impact in either direction.

Table Source: Adapted from Table 2.2 in HA205/08<sup>3</sup>

### *Amenity*

- 13.5.15 Construction of the Scheme has the potential to adversely affect amenity for residents of properties near the Scheme. Amenity effects e.g. air quality, noise or visual impact have been assessed elsewhere in the ES (Chapters 5, 6, 9 respectively); however, where a property or properties are likely to receive a

<sup>2</sup>Highways England (former Highways Agency) 2001. DMRB Volume 11, Section 3, Part 6 Amendment No1 'Land Use'. Retrieved April 2019 <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section3/11s3p06.pdf>

<sup>3</sup> Highways England (former Highways Agency) 2008. DMRB Volume 11, Section 2, Part 5 Environmental Assessment Environmental Impact Assessment. Assessment and Management of Environmental Effects. Retrieved April 2019 <http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section2/ha20508.pdf>

combination of two or more significant traffic or amenity effects, this chapter has considered the likely impact of these effects on residents and the local community.

- 13.5.16 A qualitative assessment of the potential impact of the Scheme on the amenity of private dwellings during construction and operation has been adopted and draws upon the conclusions of the traffic, air quality, noise, vibration and visual impact assessments. Impact has been assessed according to the criteria set out in Table 13.7. All dwellings are considered to be receptors of high sensitivity. In-combination effects are considered in Cumulative Effects Assessment (Chapter 15).

**Table 13.7: Magnitude of impact criteria for amenity effects on private dwellings**

Magnitude	Impact Description
Major (adverse or beneficial)	Adverse or beneficial alteration in amenity (including two or more significant amenity effects) for 5+ dwellings.
Minor (adverse or beneficial)	Adverse or beneficial alteration in amenity (including two or more significant amenity effects) for 1-4 dwellings.
Neutral	No two interacting amenity effects on dwellings.

Table Source: Atkins own methodology derived in part from the High Speed 2 community impact approach which required 5 or more residential properties to be affected in order for a community effect to be considered likely

## Community Assets

- 13.5.17 Advice on assessing impacts from the loss of land used by members of the public is included in Section 3 (Environmental Assessment Techniques), Part 6 (Land Use) of the DMRB. The guidance requires assessment of the impact of loss of land used by the community. It requires the undertaking of sufficient assessment to identify the location, status and importance of facilities and land used by the public. As with land take from private dwellings, land take for community assets is considered adverse.
- 13.5.18 The method for the assessment of magnitude is based on a bespoke set of assessment criteria, which have been developed using professional judgement, knowledge and best practice to assign a level of significance to effects arising from the impacts to community land and facilities. The magnitude of impact has been assessed according to the criteria set out in [Table 13.8](#).

**Table 13.8: Assessment criteria for land take on community assets**

Magnitude	Criteria
Major (adverse)	Loss of majority of the community land available (>50%), loss cannot be replaced in or near to study area.
Moderate (adverse)	Loss of community land available (> 25% but <50%) so as to reduce the enjoyment of people using the community facility. Loss of land to be replaced near to the study area.
Minor (adverse)	Small loss of community land take (<25%) is required which would affect enjoyment of people using the community facility.
Negligible	No community land take with little or no overall impact on the enjoyment of people using the community facility.

Source: Atkins own methodology based on best practice 2018

### Severance

- 13.5.19 Community severance is concerned with the role of roads as a barrier between different parts of the community resulting in changes to journey patterns and the impact of the Scheme on accessibility to and from communities and their facilities.
- 13.5.20 In accordance with DMRB Volume 11, Section 3, Part 8, the magnitude of impact for assessing community severance has been described using a three-point scale, according to the criteria set out in [Table 13.9](#)~~Table 13.9~~.

**Table 13.9: Assessment criteria for community severance**

Magnitude	Criteria
Major	In cases of severe severance, people are likely to be deterred from making trips to an extent sufficient to induce a re-organisation of their habits. This would lead to a change in the location of centres of activity or in some cases to a permanent loss of a particular community. Alternatively, considerable hindrance will be caused to people trying to make their existing journeys. For example, a change in journey length of more than 500 m.
Moderate	In cases of moderate severance some residents, particularly children and elderly people, are likely to be dissuaded from making trips. Other trips will be made longer or less attractive. For example, a change in journey length of between 250 m and 500 m.
Minor	Generally, in cases of slight severance current journey pattern is likely to be maintained, but there will probably be some hindrance to movement. For example, a change in journey length of less than 250 m.

Source: DMRB Volume 11, Section 3, Part 8

- 13.5.21 The impact of NMU changes in severance is reported under the NMU sub-heading.

### Amenity

- 13.5.22 The Scheme may result in changes in amenity experienced at community facilities or land used by the community. Amenity and traffic effects (including air quality, noise, vibration, and visual impact caused either directly by the Scheme itself or by changes in traffic flows brought about by the Scheme) have been considered individually in detail elsewhere in the ES namely the Air Quality (Chapter 5) and Noise assessment (Chapter 6). The people and communities chapter has considered instances where users of a community facility or land used by the community may experience a combination of such effects, leading to a cumulative deterioration in amenity. In-combination effects are also considered in Cumulative Effects Assessment (Chapter 15).
- 13.5.23 A qualitative assessment of the potential impact of the Scheme on the amenity of community facilities and land used by the community during construction and operation has been undertaken, drawing upon the conclusions of the traffic, air quality, noise, vibration and visual impact assessments.
- 13.5.24 The method for the assessment of magnitude of impact is based on a bespoke set of assessment criteria, which have been developed using professional judgement, knowledge and best practice to assign a level of significance to effects arising from the impacts, as set out in [Table 13.10](#)~~Table 13.10~~[Table](#)

~~13.10~~ **Table 13.10**. An amenity effect is considered where two or more significant visual, noise or air quality effects coincide.

**Table 13.10: Assessment criteria for amenity of community assets**

Magnitude	Criteria
Major	Substantial and permanent changes in environmental amenity for a large number of people.
Moderate	A substantial change to a modest number of people's environmental amenity or a moderate change in many people's environmental amenity. Impacts can be temporary or permanent but do not significantly affect the overall functioning of the land use in the longer term.
Minor	A detectable but non-material change to environmental amenity for a small or large number of people. Changes might be noticeable, but the beneficial or adverse impacts fall within the range of normal variation.
Neutral	Changes that are unlikely to be noticeable (i.e. well within the scope of natural variation).

Source: Atkins own methodology based on best practice 2018

*Local businesses and the local economy*

- 13.5.25 The assessment of impacts on local businesses and the local economy utilises national statistics for contextual information and project spend information. In addition, the HCA Additionality Guide<sup>4</sup> has been used to determine appropriate multipliers.
- 13.5.26 For the potential impact of construction employment creation, a turnover method has been used with sectoral turnover: employment ratios and the project spend to estimate direct employment. These impacts are also communicated in terms of Gross Value Added (GVA) for the local area.
- 13.5.27 The Additionality Guide is used to help inform the levels of impact leakage, displacement, substitution and deadweight factors, which are used to assess the net employment creation. Economic multipliers have also been used to consider the indirect and induced effects from the direct employment estimates, enabling an assessment of the net additional employment from the Scheme construction. For the impact on local businesses from the Scheme construction, land take has been assessed in its impact on business operation and in turn employment. This has used the impact magnitude assessment as set out in Table 13.11.
- 13.5.28 A qualitative assessment of the potential disruption impacts of the Scheme construction on local businesses has also been undertaken.

**Table 13.11: Magnitude of impact on local economy and employment**

Magnitude	Criteria
Major	An impact that is expected to have considerable adverse or beneficial socio-economic effects. Such impacts will typically affect large numbers of businesses, workers or residents, and be long-term in nature. High magnitude impacts will typically be long-term in nature, resulting in a permanent change of the study area's baseline socio-economic conditions.
Moderate	An impact that is expected to have a moderate socio-economic effect. Such impacts will typically have a noticeable effect on a limited number of businesses,

<sup>4</sup> Additionality Guide 4<sup>th</sup> Edition, Homes and Communities Agency, 2014

Magnitude	Criteria
	workers or residents, and will lead to a permanent (but not drastic) change to the study area's baseline socio-economic conditions.
Minor	An impact that is expected to affect a small number of businesses, workers or residents. Or an impact that may affect a larger number of receptors but without materially changing the study area's baseline socio-economic conditions. Such impacts are likely to be temporary in nature.
Negligible	An impact that is likely to be temporary in nature, or which is anticipated to have a slight or no effect on the study area's businesses, workers or residents.

Table Source: General impact magnitude definitions for socio-economic effects (Atkins own methodology based on best practice, knowledge and professional judgement)

### *Agricultural Land*

- 13.5.29 The assessment follows the approach of the DMRB Volume 11, Section 3, Part 6. This identifies six main areas which need to be covered in any assessment of effects on agricultural land. These are agricultural land quality, designated agricultural areas, land take, type of husbandry, severance and major accommodation works for access, water supply and drainage.
- 13.5.30 There is no nationally recognised set of criteria for assessing the impact of infrastructure schemes on loss of Best and Most Versatile (BMV)<sup>5</sup>land, which are grades 1, 2 and 3a of the agricultural Land Classification system and so a bespoke system has been developed to reflect the issues significant to this project.
- 13.5.31 With regard to agricultural land, this chapter includes an assessment of the impacts of the Scheme on farms, other land-based enterprises and BMV agricultural land that will be acquired on a permanent or temporary basis.
- 13.5.32 This chapter also assesses the agricultural quality of soils, with particular reference to the identification of BMV land. The non-agricultural attributes of soils are dealt with in Chapter 11, Geology and Soils.

### *Data Collection*

- 13.5.33 Soil surveys for Agricultural Land Classification were carried out on two holdings where the owners' permission was given - Park Barn Farm (Appendix 13.3) and Nutberry Farm at Ockham junction (Appendix 13.4). On other land, where access was not granted in time for this Environmental Statement (ES), the assessment was based on published soil maps (Figure 13.5). Wisley and Ockham Commons were not surveyed as the poor quality of their heathland soils is well known.
- 13.5.34 Preliminary meetings have taken place with affected agricultural landowners, apart from at Poynters Farm, and information has been gathered on land use and management.
- 13.5.35 Where meetings have not been held, information on land use was taken from satellite imagery.

<sup>5</sup> MHCLG 2019. National Planning Policy Framework. Retrieved April 2019.  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/779764/NPPF\\_Feb\\_2019\\_web.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf)

### *Magnitude of Impact*

13.5.36 Magnitude of impact (degree of change) of the Scheme on rural enterprises has been assessed on the following scale set out in [Table 13.12](#)~~Table 13.12~~~~Table 13.12~~~~Table 13.12~~, based on the likely impact on their viability. The magnitude of impact of permanent land-take is negligible.

**Table 13.12: Assessment of Magnitude of Impact on Farms and Rural Enterprises**

Magnitude	Criteria
Major (Adverse)	The identified impacts are predicted to result in very large damage to a farm or land-based enterprise such that it may no longer be viable in its current form. No major beneficial impacts were identified.
Moderate (Adverse)	The identified impacts are predicted to result in moderate or large damage to a farm or land-based enterprise, but with management changes it should remain viable. No moderate beneficial impacts were identified.
Minor (Adverse)	The identified impacts are predicted to result in slight or moderate damage to a farm or land-based enterprise, but with some management changes it should be able to operate as before. A minor beneficial impact would result in a small increase in profitability and/or ease of management.
Negligible	The identified impacts are predicted to result in little or no damage or benefit to a farm or land-based enterprise.

Table Source: DMRB Volume 11 Section 3 Part 6 Land Use

### *Agricultural soils*

13.5.37 Magnitude of impact of the Scheme on agricultural soils is assessed on the following scale set out in [Table 13.13](#)~~Table 13.13~~~~Table 13.13~~~~Table 13.13~~, based on likely loss of BMV land. No beneficial impacts were identified.

**Table 13.13: Assessment of Magnitude of Impact on Agricultural Soils**

Magnitude	Criteria
Major	The identified impacts are predicted to result in a loss of >20 ha of BMV land
Moderate	The identified impacts are predicted to result in the loss of between 5 ha and 20 ha of BMV land
Minor	The identified impacts are predicted to result in a loss of between 1 ha and 5 ha of BMV land
Negligible	The identified impacts are predicted to result in the loss of <1 ha BMV land

Table Source: Atkins own methodology based on best practice 2018

### **Development Land**

13.5.38 Assessment of the effects of the Scheme on development land is based upon guidance set out in DMRB, Volume 11, Section 3, Part 6, Chapter 5<sup>6</sup>: Effects on Development Land. It should be noted that this does not follow the other

<sup>6</sup> Highways England 1993. Volume 11, Section 3, Part 6, Chapter 5 : Effects on Development Land  
<http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section3/11s3p06.pdf> Retrieved April 2019.

subtopics with magnitude attributes, but instead effects are assessed by sensitivity and significance.

13.5.39 Development land is defined in DMRB as:

- Land that is covered by local planning authorities' future development land use designations as indicated in adopted and emerging development plans; or
- Land upon which planning permission has been granted for developments that have not yet been built, such as for housing development.

13.5.40 This guidance suggests that the environmental assessment should take account of, as far as is practicable, future changes in land use due to new development which would be likely to occur in the absence of a scheme. This should be done by considering the impact of a scheme's land-take on any sites covered by local planning authorities' land use planning designations.

13.5.41 In addition, future changes in land use, for which planning permission has been granted may also be relevant to the assessment of a scheme. For example, where a proposed scheme would run close to an area reserved for housing development it should be recognised that more residences would be affected by noise, visual intrusion, etc. than the current assessment suggests. Alternatively, planned development could reduce the landscape quality of an area, for example.

13.5.42 In order to assess potential effects of the Scheme on development land, a desk-based review of local planning policy and associated mapping and a search of planning consents has been undertaken in order to identify potential 'receptors'. The impact of the Scheme has then been assessed using a descriptive approach that considers potential 'land-take' from allocated or consented sites and the effect the Scheme may have on allocated or consented sites nearby. This assessment has considered the extent to which the Scheme would support, depart from, or hinder planning policy aims. The significance of impact on development land has been assessed according to Table 13.14 below.

**Table 13.14: Significance\* of impact on development land**

Assessment Score	Contribution to Achievement of Policy Objectives
Significant Beneficial	The Scheme substantially contributes to the achievement of, or is consistent with, the intended use of identified development land.
Beneficial	The Scheme partially contributes to the achievement of, or is consistent with, the intended use of identified development land.
Neutral	The Scheme does not affect the intended use of identified development land or equally benefits and hinders achievement of the intended use.
Adverse	The Scheme partially hinders or is inconsistent with the intended use of identified development land.
Significant Adverse	The Scheme substantially hinders or is inconsistent with the intended use of identified development land.

\* Development land does not use sensitivity- magnitude- significance table as per other subheadings.  
 Table Source: DMRB, Volume 11, Section 3, Part 6, Chapter 5

*Non-motorised users*

*Journey length and Severance*

13.5.43 Severance of existing and proposed routes and PRoW used by NMU which may be affected by the proposed Scheme have been identified through a desk-based assessment drawing on the guidance in the Pedestrians, Cyclists and Equestrians component of DMRB Volume 11, Section 3, Part 8. Changes in journey length, journey times and amenity for pedestrians and others may be such that they affect, adversely or beneficially, the degree to which a locality is subject to “community severance”.

13.5.44 Severance is reported in a joint schedule with amenity to assess the effects on NMUs.

*Amenity*

13.5.45 Amenity, for non-motorised users, is defined in Volume 11, Section 3, Part 8, sub-section 4 as “*the relative pleasantness of a journey*”. In assessing amenity for the routes used by pedestrians and others, a descriptive approach will be employed to give an overall indication of the change in amenity and the number of journeys affected, including reasoned judgement.

13.5.46 Other factors have been considered where applicable, such as footpath width and distance from traffic, barriers between pedestrians and traffic, and the quality of street furniture and planting. For ramblers, changes in the quality of landscape or townscape are also relevant. For cyclists, there may be positive factors, such as the clear signage of alternative routes, subways or cycle crossings, and negative factors such as junctions where cyclists and vehicles are not separated. For equestrians, landscape quality is generally an important factor, and some of the factors affecting cyclists, depending on the existing and proposed provision for riders. Safety for equestrians crossing a route is a particularly important consideration.

13.5.47 The assessment reporting groups changes in journey lengths and times, the effect on the amenity value of journeys and changes in community severance into a combined schedule. Table 13.15 sets out the magnitude of impact criteria used for the assessment of NMU.

**Table 13.15: Magnitude of impacts of NMU effects**

Magnitude	Magnitude of impact Criteria
Major Beneficial	Substantial improvement to NMU network through provision of new amenities for pedestrians and cyclists where there is no existing route. NMUs navigate route with a decrease in traffic flows of over 50% AADT. Decrease in journey length by over 500 m.
Moderate Beneficial	Improvement to existing NMU network through new amenities, where there are none or few existing amenities. NMUs navigate route with decrease in traffic flows of 30% - 50% AADT. Decrease in journey length by 250 – 500 m.
Minor Beneficial	Improvement of existing NMU network through upgrading of existing amenities or provision of new amenities where some already exist. Decrease in journey length by up to 250 m.

Magnitude	Magnitude of impact Criteria
Negligible /Neutral	No change to traffic flows or NMU amenity. No provision of new amenities. No substantial change in journey length.
Minor Adverse	Existing facilities worsen. Increase in journey length by up to 250 m.
Moderate Adverse	Existing facilities worsen. NMUs navigate route with increase in traffic flows of 30% - 50% AADT. Increase in journey length by 250 – 500 m.
Major Adverse	Substantial harm to NMU route and degradation of amenities. Closure or removal of existing NMU routes. NMUs required to navigate route with an increase of traffic flows of over 50% AADT. Increase in journey length by over 500 m.

Table Source: Atkins own methodology based on best practice 2018

## Vehicle Travellers

### *Views from the road*

13.5.48 The assessment of travellers' views has been based on the guidance in DMRB 11.3.9. 'View from the road' is taken to be the extent to which travellers, including drivers, are exposed to the different types of scenery through which a route passes. Aspects to be considered are:

- The types of scenery or the landscape character;
- The quality of the landscape;
- Features of particular interest or prominence in the view; and
- The extent to which travellers may be able to view the scene.

13.5.49 The extent to which travellers may be able to view landscape shall be considered according to the following categories in defining sensitivity:

- No View: road in steep cutting or contained by earth bunds, environmental barriers or adjacent structures;
- Restricted View: frequent cuttings or structures blocking the view;
- Intermittent View: road generally at ground level with shallow cuttings or barriers at intervals; and
- Open View: view extending over many miles or only restricted by existing landscape features.

13.5.50 The effects on traveller's views has been categorised in one of the following three ways as set out in [Table 13.16](#)~~Table 13.16~~~~Table 13.16~~~~Table 13.16~~.

**Table 13.16: Assessment Criteria for Views from the Road for Vehicle Travellers**

Magnitude	Magnitude of impact Criteria
Beneficial	Views from the road would be, on balance, a change for the better.
Neutral /Negligible	Little or no effect for most views from the road or improvements on some views are generally balanced by deterioration in others.

Magnitude	Magnitude of impact Criteria
Adverse	Views from the road would be, on balance, a change for the worse.

Source: DMRB Volume 11 Section 3 Part 9

### Driver Stress

13.5.51 There are three main components of driver stress: frustration; fear of potential accidents; and uncertainty relating to the route being followed:

- Driver frustration - caused by an inability to drive at a speed consistent with the standard of the road, and increases as speed falls in relation to expectations;
- Driver fear - the main factors are the presence of other vehicles, inadequate sight distances and the likelihood of pedestrians, particularly children, stepping into the road. Fear is highest when speeds, flows and the proportion of heavy vehicles are all high, becoming more important in adverse weather conditions; and
- Driver uncertainty - caused primarily by signing that is inadequate for the individual's purposes.

13.5.52 The measurable aspect of driver stress is associated with frustration due to delays. The level of driver stress has been determined through a qualitative assessment of the above factors, under a three-point descriptive scale, as recommended under DMRB guidance, Low, Moderate or High.

13.5.53 In accordance with DMRB guidance, the following Tables 13.17 to 13.19 have been used to guide the assessment of driver stress in the ES. The modelling of driver stress is for the operational phase only.

**Table 13.17: Driver Stress - Motorways**

Average peak hourly flow per lane, in flow Units/1 hour	Average Journey Speed Km/hr		
	Under 75	75-95	Over 95
Under 1200	High	Moderate	Low
1200-1600	High	Moderate	Moderate
Over 1600	High	High	High

Table Source: Table 1 DMRB Vol 11 Section 3, Part 9 Vehicle Travellers

**Table 13.18: Driver Stress - Dual-Carriageway Roads**

Average peak hourly flow per lane, in flow Units/1 hour	Average Journey Speed Km/hr		
	Under 60	60-80	Over 80
Under 1200	High*	Moderate	Low
1200-1600	High	Moderate	Moderate
Over 1600	High	High	High

\* "Moderate in urban areas"

Table Source: Table 2 DMRB Vol 11 Section 3, Part 9 Vehicle Travellers

**Table 13.19: Driver Stress - Single Carriageway Roads**

Average peak hourly flow per lane, in flow Units/1 hour	Average Journey Speed Km/hr		
	Under 50	50-70	Over 70
Under 600	High*	Moderate	Low
600-800	High	Moderate	Moderate
Over 800	High	High	High
* "Moderate in urban areas"			

Table Source: Table 3 DMRB Vol 11 Section 3, Part 9 Vehicle Travellers

## 13.6 Assumptions and limitations

- 13.6.1 As there is no published guidance relating to the assessment of people and communities; the assessment draws on other DMRB topics, professional judgement, knowledge and best practice.
- 13.6.2 Some details in the final Outline Environmental Management Plan (OEMP), Transport Assessment and the operation of the Scheme may be unknown or subject to change, and this may result in differing magnitude and significance of effects than are assessed here.
- 13.6.3 Information on community facilities has been primarily based on desk-based research.
- 13.6.4 It is assumed that all ancillary engineering works such as drainage ponds and maintenance tracks will be sited within the CPO area, so there will be no additional land take to that described in this ES.
- 13.6.5 Soil resources and agricultural land classification surveys were carried out at Park Barn Farm and Nutberry Farm where permission was granted. Elsewhere, the assessment is based on desk study.
- 13.6.6 Meetings have taken place with those active farm holdings where the relevant interest has agreed to meet project representatives.'
- 13.6.7 The assessment of NMU amenity and severance during construction assumes the route is stopped up or changed or there are temporary short diversions to keep the connection open. The affected construction phases assumptions are taken from chapter 2.
- 13.6.8 In the amenity and severance assessment on NMU during operation, the Traffic Flow 2022 information is taken from the driver stress figures. In some locations it is marked as A3 North or South, but where not clearly marked, the closest road is used. Only those NMU routes which cross or intersect with the roads within the model are listed. The affected construction phases are summarised in Chapter 2.

## 13.7 Baseline conditions

- 13.7.1 The people and communities receptors identified within the baseline are shown on Figures 13.1, 13.2 and 13.3 in the Figures chapters of this ES.

### Private dwellings

- 13.7.2 A number of residential receptors have been identified within the red line boundary and 500 m of the Scheme. These are in the main settlements of

Cobham and Byfleet and in the smaller hamlets of Elm Corner, Hatchford, Pointers Green, Downside, and Wisley. There are also isolated properties and farms, including within Wisley Common, Elm Lane, Painshill Park, along Redhill Road, and dwellings are under construction at Nutberry Farm.

- 13.7.3 Appendix 13.1 provides a full list of private residential receptors as shown on Figure 13.1.

### **Community assets**

- 13.7.4 Community land is defined by DMRB, Volume 11, Section 3, Part 6 as land used by the community and includes common land, town and village greens and public open spaces; community facilities includes places of worship, medical centres and hospitals, schools, and shops. It also includes land designated in Local Plans as Public Open Space.
- 13.7.5 Common Land and open space cover a significant area of land surrounding the existing M25/A3 road junction, particularly to the south and south-west of the junction. The public has right of access to all this land. There are also designated PRoW within the area, including Bridleways, a Byway, and Footpaths, which are considered separately in the NMU assessment.

#### *Common Land*

- 13.7.6 In line with the DMRB guidance, common land and open space land user surveys were undertaken in September 2017, comprising one weekend day (Sunday 24 September 2017) and one mid-week day (Wednesday 27 September 2017).
- 13.7.7 The size and nature of the Common Land and other areas with free public access made it difficult to comprehensively and quantitatively survey the entire area, therefore, the surveys were undertaken in a proportionate manner using a quantitative and qualitative approach. Findings of these surveys have informed the assessment of effects on users of the open space and common land. Survey teams in pairs visited specific points at set intervals in the day to observe whether anybody was in the areas affected by the Scheme. Interviews were also undertaken with users. The findings of these surveys are reported in the baseline conditions section 13.6 of this chapter and included as Appendix 13.2. No other reliable, recent sources of data are available at this time.
- 13.7.8 Given the importance of common land to the community and the potential for the Scheme to impact upon users of the site, the user count data collected has been used to establish typical user numbers and to test the usage assumptions outlined above. This has helped to influence the selection of the proposed replacement land. Providing replacement common land/PRoW is a legal requirement, regardless of the numbers of users.
- 13.7.9 Appendix 13.1 provides a full list of community asset receptors within the red line boundary and 500 m study area as shown on Figure 13.1.
- 13.7.10 There are various access points into the common land and other open space, including the Rights of Way network and a number of roads. Figures 13.2 and 13.3 show the existing and proposed PRoW.

### *Results from Common Land User Surveys*

- 13.7.11 Surveys of users of the open space areas that would be most affected by the Scheme were conducted on Sunday 24 and Wednesday 27 September 2017 in good weather conditions. The locations were on the main paths close to junction 10 in all four quadrants, as well as near Cockrow bridge in the western quadrant and on Elm Lane in the southern quadrant, west of Elm Corner. The results of the survey are included in Appendix 13.2.
- 13.7.12 The main findings were:
- The southern quadrant was busiest, with up to 31 users observed per hour; the western quadrant had up to 20 per hour; the northern and eastern quadrants were quietest, with up to 12 per hour combined; the highest counts were on the weekday mornings;
  - Weekday use was highest in the morning (9-11) and at lunchtime; Sunday use was more evenly spread with higher numbers through the middle of the day; and
  - Walkers were easily the main user group, including a large proportion of dog walkers. Equestrians were observed in all quadrants. Cyclists were infrequent in the western and southern quadrant locations, which were not close to designated cycle routes.
- 13.7.13 Some of the users encountered agreed to take part in a questionnaire, from which some general trends could be discerned:
- Users often valued the quietness and wildness of the open spaces, the convenient access, the lack of other users and the ability to allow dogs to roam;
  - Most users came by car, but some did arrive on foot, cycle or horseback; and
  - A large proportion were relatively local and relatively regular visitors.
- 13.7.14 There are three public car parks within the common land and open space. These are:
- Ockham Common, Bolder Mere Car Park;
  - Ockham Forest Old Lane Car Park; and
  - Wisley Common Car Park.
- 13.7.15 It was also found that visitors had parked on Redhill Road and at Silvermere.
- 13.7.16 Users came from a wide range of locations, but mostly from the larger residential areas to the north and west - Woking, West Byfleet, Byfleet, Weybridge and Cobham.

### **Severance**

- 13.7.17 Community severance affects access to facilities within the study area.
- 13.7.18 There are bus stops on the A3 for the bus service the 715 Kingston to Guildford.
- 13.7.19 Currently, the M25 and the A3 acts locally as a barrier, limiting movement for NMU and other local journeys, from accessing services, including those facilities described in both community assets and local business identified within the

baseline. One of the aspirations of the Scheme is to reduce the isolating effect of the M25 and the A3 on local communities.

### **Local businesses and the Local Economy**

13.7.20 Desk based research has identified the business receptors within the DCO boundary and 500 m study area study area as shown on Figure 13.1 and listed in Appendix 13.1.

13.7.21 A range of organisations are known to operate in the area around the Scheme, including:

- Heyswood Girl Guide Campsite;
- Birchmere Scout campsite;
- Painshill Park;
- RHS Gardens Wisley;
- RHS Wisley Research Facility; and
- Feltonfleet School.

13.7.22 There are also a number of farms which operate as agricultural businesses/rural enterprises in the study area. Potential impact on these has been assessed within the Agricultural Land assessment section below.

### **Agricultural land**

13.7.23 On agricultural land the key receptors are the farms, land-based enterprises (such as liveries) and isolated fields affected by land-take and severance and impacts on items of infrastructure such as trackways, hedgerows and field drains.

13.7.24 Some of the land included in this assessment, notably at Park Barn Farm, is under grass but not currently managed as farmland. However, it has not undergone any change of use that is incompatible with it being returned to farming in the future.

13.7.25 The commons close to junction 10, managed by Surrey Wildlife Trust (SWT), are included in this assessment as grazing and the income from sale of meat is an important part of their management system. The southern, more heavily wooded parts of the commons, are not included in the agricultural assessment as they are ungrazed.

13.7.26 No commercial forestry is affected by the Scheme; the only timber production being a by-product of SWT's management regime.

13.7.27 The affected holdings are shown in Figure 13.5 and their land use is summarised in Table 13.20.

**Table 13.20: Affected agricultural holdings**

Ref in Fig 13.5	Holding	Description
1	Park Barn Farm	Currently ungrazed but potentially restockable

Ref in Fig 13.5	Holding	Description
4	Land at Hatchford End, part of Poynters Farm	17 ha, part of an equestrian enterprise with stabling and associated exercise areas
5	RHS land north of Wisley bordering M25 (tenanted by SWT)	Rough grazing
6	SWT land at Ockham Common and Sandpit Hill	Low density conservation grazing
7	SWT land on Wisley Common at Cockcrow Hill	Low density conservation grazing
8	Nutberry Farm smallholding west of Ockham junction	Smallholding with no alternative land
9	RHS land next to Buxton Wood (tenanted by SWT)	Rough grazing
10	SWT land on Wisley Common bordering M25	Rough grazing
11	Land bordering east side of Ockham Park junction (owned by Department for Environment, Food and Rural Affairs, formerly Ministry of Agriculture, Fisheries and Food (MAFF) and farmed by Old Rectory Farm, Ockham)	Part of a 50-ha mixed farm
12	Field at Old Lane, Hatchford End	Rough grazing reverting to scrub
13	SWT land bordering M25 north of Pond Farm	Rough grazing
14	SWT land bordering M25 north west of Pond Farm	Rough grazing
15	SWT land on Wisley Common bordering A3 at Cockcrow Hill	Low density conservation grazing

### *Agricultural Soils affected by the Scheme*

13.7.28 There is a detailed 1:25,000 published soil map of the land around junction 10<sup>7</sup>. This map, based on field-by-field investigations, shows soil series which are soils with similar parent material, texture and other properties such as permeability and stone content that perform similarly for land use purposes.

13.7.29 The area is also covered by the 1:250,000 National Soil Maps of South East England<sup>8</sup>. The latter map, showing soil associations, is derived from the former and uses the latest terminology and classification. Soil associations are identified by the most frequently occurring soil series and by combinations of ancillary series. The following soil associations occur around junction 10 and the relevant parts of the National Soil Map are reproduced in Figure 13.5.

- **Holidays Hill association (643a):** Acid, infertile podzolic soils with a peaty topsoil when under heathland. Under farmland the soils are less acid and lack the peaty topsoil. They are sandy or coarse loamy above, becoming clayey with depth. The clay subsoil impedes the downward movement of water

<sup>7</sup> Fordham, S.J. (1986). Soils in Surrey I: Sheet TQ05 (Woking). Soil Survey Record 90. SSEW, Harpenden.

<sup>8</sup> Soil Survey of England and Wales (1983). 1:250,000 scale Soil Map of South East England. Rothamsted Experimental Station, Harpenden.

causing many of these soils to be waterlogged in the winter months, but the hydrology is variable.

- **Swanwick association (841c):** Permeable, coarse loamy and sandy soils affected by a high water table. The topsoil is humose or peaty in places.
- **Frilford association (554a):** Freely draining sandy and coarse loamy soils.
- **Fladbury association (813d):** Silty clay alluvial soils with a high water table.

*Agricultural Land Classification (ALC) of affected land*

- 13.7.30 BMV land is in Ministry of Agriculture, Fisheries and Food's (MAFF's) ALC Grades 1, 2 and Subgrade 3a<sup>9</sup>, as defined in paragraph 112 and Annex 2 of the National Planning Policy Framework (2012) and Natural England's Technical Information Note 049 (2012)<sup>10</sup>.
- 13.7.31 The published 1:250,000 Provisional ALC Map<sup>11</sup> provides only a broad indication of land quality and should not be used definitively on specific sites smaller than 80 ha in size. Moreover, the published map does not subdivide Grade 3 into Subgrades 3a and 3b and so cannot be used definitively in areas that are marginal to BMV.
- 13.7.32 An extract from this map covering the study area is in Figure 13.5.
- 13.7.33 The agricultural land between Ockham Park junction and Cobham is shown as Grade 3 (good to moderate quality) and Grade 4 (poor quality); the heaths and woodlands being classed as non-agricultural. Of the non-heathland sites affected by the Scheme, Nutberry Farm and the western part of Park Barn Farm are shown as Grade 3, the remainder being in Grade 4.
- 13.7.34 In this assessment ALC is applied to all agricultural land and grazed heathland affected by the Scheme, whether permanently or temporarily. In areas of temporary land-take it will be the contractor's responsibility to prepare a stripping, storage and restoration plan and return the land in a condition equivalent to its original.
- 13.7.35 Soil resources and agricultural land classification surveys were carried out at Park Barn Farm and Nutberry Farm in January 2018<sup>12</sup> <sup>13</sup>. The surveys are included in Appendices 13.3 and 13.4.
- 13.7.36 Permission for access to the remaining sites had not been granted at the time of preparation of this ES and their ALC is assessed on the basis of published soil information; using, in particular, the 1:25,000 scale TQ05 (Woking) soil map and the assessments are shown in Figure 13.5.

<sup>9</sup> MAFF (1988). Agricultural Land Classification of England and Wales. Revised Guidelines and Criteria for Grading the Quality of Agricultural Land.

<http://webarchive.nationalarchives.gov.uk/20130402151656/http://archive.defra.gov.uk/foodfarm/landmanage/landuse/documents/alc-guidelines-1988.pdf> (accessed March 2017)

<sup>10</sup> Natural England (2012). Technical Information Note 049 (TIN049), Agricultural Land Classification: on protecting the best and most versatile agricultural land.

<http://publications.naturalengland.org.uk/file/4424325> (accessed March 2017)

<sup>11</sup> Natural England (2010). London & South East Region 1:250 000 Series Agricultural Land Classification, Map Reference 10-111g (ALC007), retrieved 15 October 2018 from:

<http://publications.naturalengland.org.uk/publication/141047?category=5954148537204736>

<sup>12</sup> Atkins (2018). M25 junction 10 / A3 Wisley Interchange Improvements, Soil Resources and Agricultural Land Classification, Park Barn Farm, Wisley Common, Woking, Surrey, 19 February 2018

<sup>13</sup> Atkins (2018). M25 junction 10 / A3 Wisley interchange Improvements, Soil Resources and Agricultural Land Classification, of land at Nutberry Farm, Ripley, Surrey, 19 February 2018

- 13.7.37 The ALC grades of the affected agricultural land and grazed heathland are shown in Figure 13.5.
- 13.7.38 At Park Barn Farm 11.68 ha are in Grade 3b (moderate quality), principally because the sandy nature of the soil restricts the water holding capacity and the soils are prone to drought. Localised clay bands in the subsoil create a perched water table of over part of the site and in places there is a risk of surface flooding. An area of 2.9 ha (20% of the grassland) has soils that are less sandy and more moisture retentive and are in Grade 3a (good quality), with one auger bore being classified as Grade 2 (very good quality).
- 13.7.39 At Nutberry Farm 1.53 ha meet the criteria for Grade 2, and 3.78 ha is graded as 3a.
- 13.7.40 For the other sites, where only the published soil map is available, it is possible to extrapolate the results of the detailed soil surveys.
- 13.7.41 Holidays Hill soils under heathland on Ockham and Wisley Commons are in Grade 5 (very poor quality) because of their wetness, acidity and infertility. The protected status of this heathland means that soil improvement measures (cultivation and liming), such as have been implemented at Park Barn Farm, cannot be applied here.
- 13.7.42 Cultivated Holidays Hill soils are at Chatley Wood are in Grade 3a, while at Pointers Road North the floodplain is Grade 4 and the remainder 3b.
- 13.7.43 The Swanwick soils at Hatchford End and Old Lane are assessed as Grade 3a.
- 13.7.44 At Ockham junction the small piece of land to the east is assessed as Grade 3a.

### **Development land**

- 13.7.45 The sites which have been identified as Development Land are detailed in Table 13.21 below and shown on Figure 13.1.

**Table 13.21: Development Land**

Borough	Location	Reference	Distance from DCO boundary	Description of proposed development
Several (Slough Borough Council; The Royal Borough of Windsor and Maidenhead; South Bucks District Council; Guildford Borough Council; Runnymede Borough Council; Spelthorne Borough Council; Woking Borough Council; London Borough of Hillingdon)	M25 junction 10 - 16 Smart Motorway Programme (SMP)	N/A	Within the DCO Boundary	M25 junction 10 to junction 16 includes upgrading the M25 between junction 10 (A3) and junction 16 (M40) through a mixture of enhancements, including hard shoulder running between junctions 15 and 16. The scope also includes gantry works at junction 10.

Borough	Location	Reference	Distance from DCO boundary	Description of proposed development
Guildford Borough Council	Land at the former Wisley Airfield	Site allocation A35 in the Submission Local Plan: strategy and sites 2017)	Partially within the DCO boundary	Site allocation: A residential led mixed use development, allocated for: Approximately 2000 homes (C3), including some specialist housing and self-build plots, approximately 100 sheltered/extra care homes (C3 use), 8 Traveller pitches, approximately 1,800 m2 of employment floor space (B1a), approximately 2,500 m2 of employment floor space (B2/B8), approximately 500 m2 of comparison retail (A1), approximately 600 m2 of convenience retail (A1), approximately 550 m2 services in a new local centre (A2 -A5), approximately 500 m2 of community uses in a new local centre (D1), a two form entry primary school (D1), and a secondary school (D1) (four form entry, of which two forms are needed for the housing on the site and two for the wider area).
	Land at the former Wisley Airfield	Planning application refs. SCC 2012/0034 Guildford. 12/P/00533  Allocated Waste Site	Partially within the DCO boundary	A fully enclosed in-vessel composting facility with a new vehicular/pedestrian access from the A3 Ockham roundabout comprising a new site access road, with a bridge over the stream to a purpose-built enclosed composting building, ancillary staff building and vehicle parking for staff/visitors together with landscape mounding and planting, and an attenuation pond; without compliance with Condition 10 of Appeal decision APP/B3600/A/09/2098568 to allow the phased construction of the site

Borough	Location	Reference	Distance from DCO boundary	Description of proposed development
				access; alterations to the A3 southbound slip road; and the Ockham roundabout.
	Royal Horticultural Society Gardens, Wisley Lane, Wisley, Woking, GU23 6QS	Planning ref. 16/P/01080, granted 30 September 2016	Partially within the DCO boundary	Erection of new part single-storey part two-storey building accommodating retail, entrance and visitor facilities and alterations to the car parking and hard and soft landscaping and following the demolition of the existing plant centre, the extensions to the Laboratory building, toilet blocks, Aberconway Cottage and part of Aberconway House.
	Royal Horticultural Society Gardens, Wisley Lane, Wisley, Woking, GU23 6QS	Planning ref. 16/P/00976, granted 30 September 2016	~110 m from the DCO boundary	Demolition of existing buildings and erection of a two-storey building accommodating science, education, research and restaurant facilities, associated landscaping including a landscape bund and other works associated with the development.
	6 West End Cottages, High Street, Ripley, Woking, GU23 6AD	Planning ref. 17/P/01002 granted 10 July 17	~450 m from the DCO boundary	Erection of 3 terraced dwellings.
	Nutberry Farm, Portsmouth Road, Ripley, Woking, GU23 9XX	Planning ref. 17/W/00068, granted 18th July 2017	Abutting the DCO boundary	Prior notification for a change of use from agricultural buildings (barns) to three dwelling houses (Class C3) and for associated operational development.
Elmbridge Borough Council	Former San Domenico Restaurant, Portsmouth Road,	Planning Ref. 2017/0524 (application refused but still eligible for appeal)	Within the DCO boundary	Demolition of existing main building and the construction of the new petrol filling station (Sui Generis) with ancillary convenience store (Use A1) and food to go outlet

Borough	Location	Reference	Distance from DCO boundary	Description of proposed development
	Cobham, KT11 1EN			(Use Class A5), 4 no. pump islands, canopy, underground tanks, revisions to vehicular access, parking and circulation arrangements, landscaping and associated works.
	Enfin, Painshill Farm, Portsmouth Road, Cobham Surrey KT11 1DN	Planning Ref. 2018/2432 validated 4 October 2018, still under consideration	Abutting the red line boundary	A revised application to provide a 70-bed care home with integrated communal and support facilities, landscaped residents' gardens, staff areas, refuse storage, parking and landscaping following demolition of existing houses.
	Feltonfleet School Byfleet Road Cobham Surrey KT11 1DR	Planning ref. 2017/2106, granted 24th November 2017	Partially within the DCO boundary	Two-storey detached building (Music Facility) with single storey glazed link and new pedestrian access, conversion of Leighton House to ancillary staff accommodation, internal refurbishment of David Rutherford Centre, two-storey detached building (Digital Technology & Art Hub), single storey building and 4 m high brick wall enclosure to provide rifle range, single storey maintenance shed, rearrangement of maintenance yard, single storey detached building to provide new Head's House, cricket nets and replacement boundary wall along Byfleet Road following the demolition of part two/part single storey detached building (Keith Leighton Memorial Hall), single storey store and toilet, attached garage to Leighton House and existing rifle range and open store building.
Elmbridge Borough Council / Mole Valley District Council	Chasemore Farm, Bookham Road,	Planning ref. MO/2012/1643, granted 10th May 2013	Abutting the DCO boundary	Equine Stud Farming facilities incorporating a Foaling Unit, Main Yard, Pre-Foaling Yard,

Borough	Location	Reference	Distance from DCO boundary	Description of proposed development
	Downside, Cobham, Surrey, KT11 3JT			Isolation Yard, New Combined Exerciser/Lunge Ring, Stud Office, 2 Turn Out barns and ancillary facilities for horses; relocation of stable barn from site centre to Yearlings site; alterations to existing site entrances and construction of new internal access roads. (Part of site in Mole Valley District Council area)
Woking Borough Council	Land to the south of Murrays Lane, Byfleet	Site Allocation GB5	~400 m from DCO boundary	4.43 ha site safeguarded to meet future needs between 2027 and 2040. Estimated yield of 135 dwellings.

13.7.46 There are three Surrey County Council Mineral Safeguarding Areas (MSAs) within the 500 m study area. Surrey County Council have confirmed that they do not consider the sites will be sterilised by the Scheme and therefore these are not included in the Development Land baseline. The MSAs are discussed in Chapter 10 Geology and Soils and identified on Figure 10.2 (Geological Hazards and Mineral and Waste Safeguarded Zones).

### **Non-Motorised Users**

13.7.47 There are several PRoW and footpaths of local importance within the study area, some of which cross or intersect with the Scheme.

13.7.48 There is also an approximately 4.8 km shared pedestrian and cycle route running along the A3 Portsmouth Road following the southbound carriageway between Painshill interchange and Ockham junction in Elmbridge and Guildford boroughs. The shared cycle route continues around the junction 10 roundabout at grade with pelican crossings. There is also a short section of shared cycle route to the south of junction 10 which follows the northbound carriageway of the A3 starting at the entrance for the off slip for the junction 10 roundabout and continuing round the roundabout at grade, providing a link to southbound shared footpath cycle route, ending at Redhill Road.

13.7.49 Pedestrian facilities are located at Painshill and Ockham junctions which allow NMU to cross over the A3 at grade. A pedestrian footbridge is located at Wisley Lane over the A3. Pedestrians can also cross over the A3 at Cockcrow Overbridge and over the M25 at Clearmount, Buxton Wood and Hatchford Bridges.

13.7.50 The PRoW noted have been identified from the Surrey County Council online mapping.

13.7.51 Figures 13.2 and 13.3 show the locations of the existing and proposed rights of way and ~~Table 13.22~~~~Table 13.22~~~~Table 13.22~~~~Table 13.22~~ provides for a schedule of the existing PRow facilities within the study area – of which there are 36.

**Table 13.22: Existing PRow Facilities within the study area**

PRoW facilities	Relationship to Scheme	NMU facility location and pathway
Footpath FP66	Within Study Area	1.2 km footpath connecting the A245 Portsmouth Road to Church Street.
Footpath FP65	Within Study Area	Comprises of two sections- one is 120 m and the other 150 m long. The sections of footpath run through the residential area to the North East of the A245/A3 junction.
Bridleway BW69	Intersects	Passes Hatchford Wood before crossing the M25 at Hatchford Park footbridge, totalling a distance of 700 m.
Footpath FP17	Within Study Area	Traverses Ockham Common for approximately 900 m to the Cockrow Footbridge, which it crosses and terminates just south of the public car park on Wisley Common. This adjoins FP10 at Hut Hill Cottage and forms part of the London Country Way long distance footpath.
Footpath FP10	Intersects	Traverses Wisley Common heading north past Hut Hill Cottage and Pond Farm. Footpath FP10 starts at Clearmount footbridge, where it meets FP11 and BW8. It then traverses the eastern section of Wisley Common (South West quadrant of Wisley interchange) for approximately 1 km, passing Pond Farm and Woolgers Wood to the west. It terminates at the boundary of the proposed highway works near Hut Hill Cottage.
Bridleway BW16	Within Study Area	Travels past Wilderness Cottage and meets restricted byway BY525 southeast of Bolder Mere.
Byway BY525	Intersects	Byway connecting Old Land with Elm Corner. Not accessible by vehicle at present.
Bridleway BW12	Intersects	Crosses the A3 at the M25 junction 10/A3 Wisley interchange. It links Wisley Common to Redhill Bottom and Chatley Wood.
Footpath FP12	Intersects	FP12 is formed of a 350 m footpath which splits from FP11 and crosses Wisley common to the A3, where it adjoins bridleway BW12. It is located within the North West quadrant of the M25 junction 10 / A3 Wisley interchange.
Footpath FP11	Intersects	A section of FP11 is approximately 950 m in length in the North West quadrant of the Wisley interchange. It travels from the M25 boundary to the east to the A3 boundary in the west across Wisley Common meeting BW8 and FP10 at Clearmount footbridge.
Footpath FP14	Intersects	The end of FP14 abuts the proposed highway works at Bolder Mere to the south of the A3.
Footpath FP15	Within Study Area	Route runs from Elm Corner at its northernmost point, southwards to Appstree Farm at Ockham Lane.
Footpath FP19	Within Study Area	Footpath runs from The Gardens at Hatchford End, southwards to Ockham Lane, close to Little Upton Cottages.
Footpath FP71	Intersects	Short route running between Old Lane and Ockham Lane. South of Hatchford Woods.

PRoW facilities	Relationship to Scheme	NMU facility location and pathway
Bridleway BW70	Within Study Area	Bridleway traversing Hatchford Wood, and continuing south-eastwards along Ockham Lane.
Footpath FP73	Within Study Area	Path along unnamed road, off Ockham Lane and abutting the western side of Norton Wood.
Footpath FP75	Intersects	FP75 starts at Horsley Road, adjacent to Goose Green before heading southwards crossing the M25 before heading westwards towards Norton Wood. Adjoins FP77.
Footpath FP76	Within Study Area	Short section of footpath linking GP75 at Goose Green and BW 74 to the north.
Footpath FP77	Within Study Area	Approximately 900 m, starting at the junction of Norton Lane and Ockham lane, travelling along Norton Lane eastwards before heading southwards towards Old Oak Common.
Bridleway BW74	Within Study Area	Bridleway between Brickfield Copse and Downside Road, passing Pondtail Farm and Forge Cottages.
Footpath FP68	Within Study Area	Route approximately follows section of River Mole between Downside Road and Pointers Road.
Bridleway BW544	Intersects	Bridleway BW544 starts at Elm Lane before crossing the former Wisley Airfield. It joins with FP13 and FP13a.
Footpaths FP13	Intersects	Footpaths FP13 and FP13a connect at the eastern side of Ockham junction at Ockham Lane. They then split, following parallel paths eastwards along the Former Wisley Airfield until they re-join at Bridge End Farm.
Footpath FP13a	Intersects	Footpaths FP13 and FP13a connect at the eastern side of Ockham junction at Ockham Lane. They then split, following parallel paths eastwards along the Former Wisley Airfield until they re-join at Bridge End Farm.
Bridleway BW8	Intersects	Bridleway BW8 crosses the M25 at Clearmount footbridge. Southwards it crosses Wisley Common to the west of Woolger's wood finishing close to Battleston Hill. Northwards it abuts the northern boundary of Buxton Wood, carrying on northwards until it ends at Bluegates Hole. It has a total distance of 3.3 km.
Footpath FP9	Intersects	Footpath FP9 traverses Wisley Common for approximately 1 km and terminates at the boundary of the common and A3. It intersects bridleway BW8.
Footpath FP7	Intersects	Footpath FP7 runs approximately 1.4 km along the eastern edge of Wisley Common north towards Buxton Wood Footbridge which crosses the M25 then follows the western boundary of Buxton Wood until it adjoins and terminates at Byway BW25.
Footpath FP6	Within Study Area	A 1.2 km stretch of path, footpath FP6, travels eastwards from Mill Lane and along the northern boundary of Wisley Gardens, where it terminates at eastern edge of Wisley Gardens.
Footpath FP5	Within Study Area	Footpath follows Wharf Lane path and track to Ockham Mill.
Footpath FP69	Within Study Area	Footpath FP69 links Hill Lane, south of Hungry Hill to Ripley Bypass, south of Ockham Park.

PRoW facilities	Relationship to Scheme	NMU facility location and pathway
Bridleway BW33	Within Study Area	BW33 is a 900 m bridleway links Ockham Mill Farm to the B2215, transecting Dunsborough Park.
Footpath FP3	Within Study Area	Footpath FP3 adjoins FP566 at the northern point of the sewage treatment works at Wisley, running along the eastern edge of the site heading southwards.
Footpath FP566	Within Study Area	Footpath FP566 adjoins FP3 at the northern point of the sewage treatment works at Wisley, running along the western edge of the site heading southwards.
Footpath FP129	Within Study Area	Short section of footpath bearing north from the intersection of FP3 and FP566.
Footpath FP4	Within Study Area	Footpath FP4 runs east to west through Wisley Common starting at Wisley lane and culminating north of Pond Farm.
Footpath FP531	Within Study Area	Footpath FP351 traverses through Ripley Green from Dunsborough Park.

## Vehicle Travellers

### *View from the road*

13.7.52 The existing views from the junctions are described below:

- Painshill interchange: restricted and open views from the A3 are available and are restricted mainly by vegetation including mature trees. Views at the junction are restricted interspersed with electricity pylons. Open views are available north of the junction.
- A3: The view from the A3 is largely screened by mature vegetation, including woodland, whilst travelling north and south bound. The views are partial and filtered by trees and hedgerows along the A3. The M25 is visible when passing over the overbridge at junction 10, which also affords a brief open view over the woodland landscape of Wisley and Ockham Commons.
- M25: The views from the M25 are screened with vegetation for the entire length through the study area. West of junction 10 the view is screened by mature woodland behind noise barriers with occasional cuttings. At junction 10 from the M25 there are clear views of the overbridge and slip roads for the A3. East of junction 10 the motorway is contained within a cutting with the view being screened by noise barriers, mature woodland and embankments.
- Ockham interchange: restricted views of vegetation on the approach to the junction on the A3 with brief open views from the overbridge.
- Side Roads: In general, the views from the side roads are restricted with glimpses through the mature woodland of heathland within the Commons. Close to the A3 glimpses of the dual carriageway are viewable at certain points including approaches.

13.7.53 In summary, the general views from the road for vehicle travellers on the surrounding road network and junctions provide a varied experience, ranging from no views to open views over the surrounding landscape which is comprised of a mixture of agricultural, woodland, and vegetation. Open views will allow

vehicle travellers opportunity to appreciate the local landscape, whilst also providing some alleviation for driver stress.

*Driver stress*

- 13.7.54 There are two Strategic Roads (as designated by Highways England) namely the A3 and the M25.
- 13.7.55 The M25 provides a continuous orbital route around Greater London. It carries high volumes of traffic which can cause disruption and delays to the surrounding road network particularly when emergency closures and lane closures are imposed. The south-west quadrant of the M25 is one of the busiest sections of the motorway network and regularly experiences severe congestion. The probability of experiencing congestion in the peak period is more than 80% in the south-west quadrant of the M25. Average speed at peak times on the M25 is as low as 31-40 mph west of junction 10 and 41-50 mph to the east. The south-west quadrant is in the top 10 percent nationally in terms of vehicle hour delay.
- 13.7.56 Due to the level of fear and frustration experienced by Vehicle Travellers as a result of features described previously, the level of Driver Stress experienced is regarded as 'High'.
- 13.7.57 There are a number of local roads in the vicinity of the Scheme, including but not limited to:
- Portsmouth Road;
  - Ripley High Street;
  - Ockham Road;
  - Wisley Lane;
  - Mill Lane;
  - Rose Lane;
  - Elm Lane;
  - Hatch Lane;
  - Old Lane;
  - Pointers Road;
  - Redhill Road;
  - Byfleet Road; and
  - A245.

## 13.8 Potential impacts

### Private Dwellings

#### *Construction*

#### *Land Take and changes in access*

- 13.8.1 Construction of the Scheme will result in temporary and/or permanent direct physical impact upon private dwellings through land take and alterations to access.
- 13.8.2 One vacant residential property (a flat within the building) is to be lost through the demolition of the former San Domenico restaurant. The flat is believed to be ancillary to the vacant restaurant. The San Domenico site is proposed as a satellite compound during construction.

**Table 13.23: Temporary and permanent land take of residential receptors during construction**

Receptor	Total Area m <sup>2</sup>	Temporary land take m <sup>2</sup>	Permanent land take m <sup>2</sup>
Reynards, Elm Corner	6,376	4	0
Hut Hill Cottage	55,240	7226	5,530
Long Orchard (including the Farm Cottage, Coach House and Fir Tree Cottage)	192419	0	5308
Court Close Farm	34,417	703	2721
New Farm House	81,433	17,879	8,904
Former San Domenico restaurant – ancillary flat (Figures are for the whole site)	23,919	19,309	4,558
Caretaker's cottage, Heyswood Girl Guides (Figures are for the whole site)	84,100	0	7,567
Park Barn Farm (Figures are for the whole site)	268,431	0	129,769
Orchard Cottage	4689	184	0

- 13.8.3 In all cases where the Scheme affects the access to a dwelling, an alternative access will be provided. It is assumed that continuous access, whether via the dwelling's original access, a temporary access, or a revised permanent access arrangement, will be possible throughout the construction period.
- 13.8.4 Access to all residential receptors will be maintained throughout the construction period. There may be an increase in journey lengths and times due to construction related congestion and diversions, which may affect residents of nearby dwellings.
- 13.8.5 During construction the phasing will result in changes to journey lengths and access. The journey length and time for residents of Wisley will increase following the construction of the Wisley Lane realignment and Wisley Lane

overbridge. The direct access from the A3 will be stopped up once the new alignment is completed.

- 13.8.6 The properties on Elm Lane are currently accessed directly from the South Bound A3. The Elm Lane junction with the A3 will be stopped up and an alternative access to Elm Corner via Old Lane and an improved section of Byway Open to All Traffic will be provided.
- 13.8.7 Wilderness Cottage is accessed from Old Lane via Hatch Lane. Whilst Old Lane is improved at this junction, works will need to be managed with the occupiers to ensure they can access and egress their property at all times.
- 13.8.8 The journey length and time for Hut Hill Cottage on Wisley Common will be affected once the replacement Cockrow Bridge overbridge is completed and brought into use and the existing access (also used by Surrey Wildlife Trust and the Birchmere Scout Camp) from the A3 is stopped up.
- 13.8.9 Once the A3 North Bound Local Access Road is brought into use it will affect the journey length and time for residents of Long Orchard House, Coach House, Fir Tree Cottage and Long Orchard Farm. The direct access from the A3 will be stopped up and residents will access their properties via Painshill junction, the A245, Seven Hills Road (South) and the new Local Access Road.
- 13.8.10 When the new Painshill Local Access Road is complete, this will provide the access to New Farm, the Heyswood Girl Guide Camp Site Warden's Cottage and Court Close Farm off the A3 South Bound slip road. Their existing direct accesses from the A3 will be stopped up but it is not anticipated that the new access will significantly affect journey length and time.

#### *Amenity*

- 13.8.11 Construction amenity effects arise from changes to air quality, noise and landscape. Effects may arise from activities and Scheme elements such as:
- Site clearance;
  - Earthmoving operations;
  - Utility diversions;
  - The formation of temporary spoil areas;
  - Road formation/construction;
  - The creation of new earthworks;
  - Creation of site compounds;
  - Proposed overbridges/structures construction; and
  - Demolition of existing overbridges.
- 13.8.12 Chapter 5, Air quality, of this ES, indicates that there is the potential for elevated dust deposition and soiling at properties within 200 m of the indicative construction site boundary as a consequence of the works, if dust raising activities are not effectively controlled and mitigated. The level and distribution of dust emissions would vary according to the duration and location of activity, weather conditions, and the effectiveness of suppression measures.

- 13.8.13 The prevailing winds recorded at Heathrow Airport meteorological station suggests that the wind is more likely to transport the dust raised on site towards the north east of the construction works. Receptors to the north east of the construction works include properties to the east of the A3 including those at Elm Corner, within Painshill Park and in Cobham.
- 13.8.14 With regards to construction traffic, there are not expected to be significant effects for NO<sub>2</sub> or PM<sub>10</sub> concentrations. Changes are expected to be imperceptible.
- 13.8.15 Chapter 6, Noise and vibration, of this ES identifies the potential effects from construction noise, construction vibration and construction traffic. It is anticipated that the majority of works will take place during the day time only, with the exception of beam lifting and fabrication works associated with the new East and West Overbridges and for demolition of the existing structures which may take place at night. Road resurfacing works may also take place at night at the Painshill interchange.
- 13.8.16 For construction noise, the predictions indicate that sensitive receptors close to junction 10 or near the A3 between junction 10 and the Painshill interchange are most likely be affected by high noise levels from construction works. This includes the residential receptors close to the Painshill interchange West Lodge, Calvi, and Painshill Farm that would be affected by the road widening works on the A3 and the A245, and receptors close to the A3 (Silvermere Lodge, Court Close Farm) that would be affected by the road widening works, temporary slip roads, and retaining wall construction.
- 13.8.17 At Hut Hill Cottage close to junction 10, the highest noise levels are attributed to demolition works, slip road construction and road works. Temporary high noise levels are also predicted at properties in proximity to the proposed works at Elm Lane.
- 13.8.18 With regards to construction vibration, it is indicated that vibration from percussive piling or vibratory rolling is likely to be perceptible at a number of sensitive receptors, including Hut Hill Cottage and West Lodge. The threshold vibration levels for complaints is exceeded for percussive piling only at Silvermere Lodge, The Tower, The Cottage and Calvi. The activities causing the highest vibration levels at these properties are retaining wall construction works for the slip roads at junction 10 or Painshill Retaining Wall B.
- 13.8.19 The noise increase from construction traffic is anticipated to be negligible at sensitive receptors.
- 13.8.20 Chapter 9, Landscape and Visual, of this ES indicates that the removal of trees and screening vegetation may result in the opening up of views of the road to nearby visual receptors, including a number of residential properties and PRoW users.

### *Operation*

#### *Land Take and changes in access*

- 13.8.21 No direct physical impact is expected upon private dwellings during operation. Any land take required by the Scheme will occur during the Scheme's construction phase and has been noted under the relevant section above.

13.8.22 No new access changes are anticipated to private dwellings and therefore no effect on severance is anticipated to residential receptors during operation. Whilst there may be some minor increases in journey lengths and times as a result of the new highway alignments and traffic management systems, these are likely to be offset by improvements in traffic management and a higher network capacity.

*Amenity*

- 13.8.23 Chapter 5, Air quality, of this ES indicates that once the Scheme is operational, there are expected to be exceedances of the NO<sub>2</sub> annual mean Air Quality Strategy for England, Scotland, Wales and Northern Ireland (AQS)<sup>14</sup> objective at three receptors R1 (1 Woodhaw, Egham, Surrey), R3 (1 Vicarage Crescent, Egham, Surrey) and R71 (Kendale Court, Weston Road, Stoughton, Guildford, Surrey) (refer to Chapter 5).
- 13.8.24 There are expected to be improvements in NO<sub>2</sub> levels with the Scheme. The greatest decrease in annual mean NO<sub>2</sub> concentrations with the Scheme is expected to be a 'small' decrease of 1.4 µg/m<sup>3</sup> at receptor R30 (West Lodge) close to the Painshill junction on the A3 north of junction 10.
- 13.8.25 There are not expected to be any exceedances of the PM<sub>10</sub> annual mean AQS objective, and all changes are expected to be imperceptible.
- 13.8.26 Chapter 6 Noise and vibration, of this ES identifies the potential noise impacts arising once the Scheme is operational.
- 13.8.27 In the opening year of the Scheme, it is predicted that nine dwellings would experience predicted minor increases in daytime road traffic noise levels compared with noise levels without the Scheme. The affected receptors would be located at Hatch Lane (Yew Tree Cottage and 2 Yew Tree Cottages) and Ockham Lane (The Cottage, Appstree Cottage, 2 Appstree Cottages, Red Rose Cottage, Beech Cottage, Bridge End, and Ivy Cottage). Minor noise decreases are predicted at several locations within the study area including Elm Corner and Wisley Common. Other than a moderate noise decrease, at an ancient woodland near the Former Wisley Airfield, no moderate or major changes in daytime noise level are predicted.
- 13.8.28 With regards to long-term changes to road traffic noise levels, perceptible adverse effects are predicted south and east of the Scheme at the Former Wisley Airfield both with and without the Scheme. Without the Scheme, 4 moderate noise increases and 23 minor noise increases were predicted at properties south of the Former Wisley Airfield at Ockham, Bridge End and Martyr's Green. These noise increases are attributed to traffic growth at Ockham Lane and other local roads due to the occupation of the proposed housing development at the Former Wisley Airfield.
- 13.8.29 With the Scheme, 12 properties were predicted to experience moderate noise increases and 10 properties were predicted minor noise increases. All of the minor or moderate noise increases were predicted at locations south of the Former Wisley Airfield at Ockham, Bridge End and Martyr's Green. These noise

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<sup>14</sup> Defra (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland. Retrieved 2019, from <https://www.gov.uk/government/publications/the-air-quality-strategy-for-england-scotland-wales-and-northern-ireland-volume-1>

increases are attributed to additional traffic generated by the proposed housing development rather than the Scheme itself.

- 13.8.30 Negligible long-term changes are predicted at the majority of locations within the study area, including Elm Corner, Wisley, Cobham, and properties on Seven Hills Road and Byfleet Road.
- 13.8.31 There are no adverse impacts from airborne or ground-borne vibration predicted due to road traffic from the operational Scheme.
- 13.8.32 Chapter 9, Landscape and visual, of this ES identifies that the removal of existing vegetation, the widening of the A3 and M25, associated infrastructure, and passing traffic within a predominantly rural setting with sensitive visual receptors has the potential to change views but this will decrease as vegetation matures.

### **Community assets**

#### *Construction*

#### *Land Take and Severance*

- 13.8.33 Community land is required to construct the Scheme. This will directly affect Ockham Common, Wisley Common, and other open space, where the public benefit from right of access by virtue of The Countryside and Rights of Way Act 2000 which permitted access to land mapped as 'open country' (mountain, moor, heath and down) or Registered common land.
- 13.8.34 The Scheme will also affect Painshill Park and RHS Gardens Wisley. Both facilities are open to the public during set times.
- 13.8.35 It is considered appropriate to include assessment of potential impacts on these receptors under the Community Assets subheading as well as under Local Businesses due to the nature of these facilities, which are both visited by many members of the public.
- 13.8.36 Alterations to Number 715 bus route and its stopping places may adversely affect the ability of members of the public to access community assets during construction and once the Scheme is operational. Re-provided bus routes and/or stopping points may be less advantageous by virtue of increased journey time for those visiting assets. The revision of routes and/or stopping places may either be temporary, during construction, or permanent alterations occurring in operation. Access to RHS Wisley Gardens, which benefits at present from a dedicated stopping point, may in particular be affected. Bus stop arrangements have provisionally been agreed with Surrey County Council (who are responsible for the operation of the 715 service) and RHS Wisley, to provide a bus stop facility within the RHS Garden Wisley site as part of the Scheme.

#### *Amenity*

- 13.8.37 Users of community facilities within the study area may experience changes in amenity as a result of construction and operation of the Scheme. Amenity related effects include air quality, visual, traffic and noise effects.
- 13.8.38 Most users of outdoor resources such as common land and open space may be expected to be 'transitory' i.e. not exposed to altered amenity for prolonged lengths of time. These users are likely to be less sensitive to changes in amenity.

However, some outdoor users undertaking activities such as camping in the Heyswood Girl Guide campsite or Birchmere Scout campsite may experience changes in amenity for sustained periods. In addition, a key element in the enjoyment of Parks and Gardens may relate to the relative amenity of those spaces. Schools may be particularly sensitive to change in amenity, particularly relating to air quality, noise and vibration.

### *Operation*

#### *Land take and Severance*

- 13.8.39 No direct physical impact is expected upon community land during operation. Any land take required by the Scheme will occur during the construction phase.

#### *Amenity*

- 13.8.40 Amenity impacts may occur during operation where two or more amenity influences (air quality, noise, visual impact) are experienced by one receptor, which are considered in Table 13.31 and 13.32. No amenity impacts are expected during operation.

## **Local businesses and local economy**

### *Construction*

#### *Land take and severance*

- 13.8.41 The construction of the Scheme requires temporary possession of land from eight receptors. Through the consideration of the construction impact magnitude and the sensitivity of the receptor, the potential impacts on local businesses resulting from the construction phase of the Scheme have been assessed.
- 13.8.42 The Scheme will temporarily acquire land from eight receptors.
- 13.8.43 The Scheme will permanently acquire land from eight receptors.
- 13.8.44 A summary of the land acquisition impacts through the construction phase can be found in [Table 13.24](#)~~Table 13.24~~~~Table 13.24~~~~Table 13.24~~.

**Table 13.24: Potential land take impacts**

<b>Holding</b>	<b>Temporary Land Take m<sup>2</sup></b>	<b>Permanent Land Take m<sup>2</sup></b>	<b>Total Area m<sup>2</sup></b>
Nutberry Farm	61,660 <u>56,342</u>	4,410 <u>1,733</u>	22,3770 <u>223,927</u>
Former San Domenico restaurant site	49,300 <u>19,294</u>	49,300 <u>4,612</u>	23,920 <u>23,906</u>
Feltonfleet School	4,450 <u>1,548</u>	3,680 <u>1,532</u>	75,000 <u>69,696</u>
Cobham Hilton	5,080 <u>5,075</u>	6,400 <u>6,390</u>	400,190 <u>100,236</u>
Surrey Wildlife Trust, Pond Farm	43,860 <u>1,466</u>	2,490 <u>2,525</u>	494,660 <u>141,542</u>

Holding	Temporary Land Take m <sup>2</sup>	Permanent Land Take m <sup>2</sup>	Total Area m <sup>2</sup>
Painshill Park	20,050	33,910	865,812
	<u>22,236</u>	<u>28,404</u>	<u>865,866</u>
RHS Gardens Wisley	250	1,308	635,030
	<u>8,440</u>	<u>8,478</u>	<u>635,962</u>
Wisley Trails	5,020	4,080	74,000

### Construction disruption

- 13.8.45 The construction of the Scheme will impact some of the business receptors, affecting trading conditions due to traffic, air quality, noise, vibration and visual effects. Some of the local businesses rely heavily on road access and passing trade for customers and may subsequently experience reduced access.
- 13.8.46 Painshill Park and RHS Gardens are particularly susceptible to increased traffic and congestion, where their offering is focused on providing a quiet and pleasant environment for visitors, and Painshill Park offers event space within its 'The Conservatory' space.
- 13.8.47 As such, it is believed that without the appropriate mitigation (Traffic Management Plan), some of the businesses within the 500 m buffer may experience a combination of such impacts, leading to restricted access and in turn could affect their operation and profitability or viability.

### Employment

- 13.8.48 The construction of the Scheme has the potential to create local employment during the construction phase.
- 13.8.49 Through the consideration of the impact magnitude and the sensitivity of the receptor, the potential impacts on local businesses resulting from the operational phase of the Scheme have been assessed.
- 13.8.50 Estimates have been undertaken by using the Scheme costs and assigning appropriate factors for impact leakage, displacement and economic multipliers, following HCA Additionality Guidance<sup>15</sup>.

### Operation

#### Land take and severance

- 13.8.51 No direct physical impact is expected upon local businesses during operation. Any land take required by the Scheme will occur during the construction phase.

### Employment

- 13.8.52 Through the consideration of the impact magnitude and the sensitivity of the receptor, the potential impacts on local businesses resulting from the operational phase of the Scheme have been assessed.

<sup>15</sup> HCA Additionality Guidance (2014) 4<sup>th</sup> Edition

- 13.8.53 Estimates have been undertaken by using the Scheme costs and assigning appropriate factors for impact leakage, displacement and economic multipliers, following HCA Additionality Guidance<sup>16</sup>.

### **Agricultural land**

- 13.8.54 The location of the agricultural land and grazed commons affected by the Scheme is shown in Figure 13.5.
- 13.8.55 The area of agricultural land that will be permanently lost to farming is 15.97 ha, comprising 15.08 ha of replacement land and 0.89 ha permanently acquired for engineering use.
- 13.8.56 Land subject to temporary land-take, totalling 10.8 ha, is not included in the above as it will be restored to a condition that will enable it to be returned to its original condition at the end of the construction phase. Nor are agricultural SPA compensation areas, totalling 22.05 ha, as conservation grazing will form part of their future management regime.
- 13.8.57 No agricultural buildings will be demolished by the Scheme.

#### *Characteristics of farmland to be lost to permanent land acquisition*

- 13.8.58 **Wisley Common:** Grazed wooded heathland totalling 0.48 ha will be taken by the Scheme at Cockcrow Hill. Wisley and Ockham Commons are grazed by the Surrey Wildlife Trust (SWT) from their farm base at Pond Farm. The cattle, sheep and goats at the farm are primarily for conservation grazing, but the meat commands premium prices and is a significant source of income for the Trust. Clearmount Bridge is used to transport cattle to the pastures owned by RHS Wisley to the west near Buxton Wood on which SWT have a grazing agreement. Cockcrow Bridge is used to move livestock over the A3.
- 13.8.59 Other parts of Wisley and Ockham Commons taken by the Scheme beside the M25 and A3 are not included here as they are so heavily wooded as to provide no grazing.
- 13.8.60 **Land bordering M25 north west of Pond Farm:** 0.24 ha of a field of rough grassland owned and grazed by SWT, as part of its Pond Farm operations, will lose a small amount of land to an attenuation pond.
- 13.8.61 **Land bordering east side of Ockham Park junction:** 0.18 ha of grassland will be lost. This land, owned by DEFRA, is farmed by Old Rectory Farm, Ockham.

#### *Characteristics of farmland subject to temporary land acquisition*

- 13.8.62 Wisley Common (Cockcrow Hill): In the south west quadrant of junction 10 bordering the A3 and M25 slip roads there will be temporary works on 2.07 ha of grazed heathland on Wisley Common.
- 13.8.63 Nutberry Farm smallholding west of Ockham junction: The proposed construction compound to the west of the A3 at Ockham junction will occupy 5.31 ha of a 15.0 ha smallholding that is occasionally grazed by horses and formerly included a market garden for soft fruit. The northern part site is sublet on 25 days a year for car boot sales.

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<sup>16</sup> HCA Additionality Guidance (2014) 4<sup>th</sup> Edition

- 13.8.64 Land next to Buxton Wood: This 3.03 ha field of rough grazing is owned by the RHS and grazed by SWT who use the Clearmount overbridge. It will be a soil storage area.
- 13.8.65 SWT land bordering M25 north west of Pond Farm: This is a narrow strip of 0.4 ha of rough grazing where there will be for soil storage.
- 13.8.66 At the end of the construction phase all this land will be restored to its original condition and returned to the owner.

*Farmland acquired as replacement land*

- 13.8.67 Park Barn Farm: Replacement land comprises 25.4 ha of this 40.0 ha holding. 14.58 ha of the replacement land is under permanent grass, the remainder being woodland and not included in this assessment. The grassland is currently ungrazed and managed by mowing but has the potential to be restocked with livestock.
- 13.8.68 Hatchford End: This 0.5 ha parcel is in a field of improved grassland that is part of an equestrian enterprise (Poynters Farm). The adjoining stabling is unaffected.

*Special protection areas (SPA) compensation areas*

- 13.8.69 19.55 ha of grazed wooded heathland on SWT's commons at Cockcrow Hill and Ockham Common/Sandpit Hill will become SPA compensation areas.
- 13.8.70 A 1.06 ha field of rough grass north of Wisley, owned by RHS Wisley, will become an SPA compensation area as will 1.3 ha of rough grass reverting to scrub at Old Lane, Hatchford End.
- 13.8.71 Other SPA compensation areas are too heavily wooded to be grazed and are excluded from this assessment.

*Loss of BMV land*

- 13.8.72 Of the 15.97 ha of permanent acquisition and replacement land that will be permanently taken out of agricultural use 3.58 ha (22%) is of BMV quality. This is well below Natural England's 20 ha significance threshold for loss of BMV land.
- 13.8.73 Of the 10.8 ha to be temporarily possessed for construction compounds 5.31 ha (50%) is of BMV quality. This will be restored to agricultural use at the end of the construction phase.
- 13.8.74 The agricultural land to be used for SPA compensation is 22.05 ha of which 1.3 ha (6%) is of BMV quality. This will be managed in the future through conservation grazing and so will not be lost to agriculture.
- 13.8.75 Thus, the permanent loss of BMV land to the Scheme is 4.88 ha.

*Construction*

- 13.8.76 In the construction phase the following areas of agricultural land will be taken out of agricultural use:
- Permanent engineering use (the Scheme footprint): 0.89 ha
  - Temporary engineering use (site compounds): 10.8 ha
  - Replacement land (excluding woodland): 15.08 ha

13.8.77 Additionally, four areas of agricultural land, totalling 22.05 ha will become SPA compensation areas.

13.8.78 Potential impacts on individual land holdings in the construction phase are summarised in [Table 13.25](#)~~Table 13.25~~~~Table 13.25~~~~Table 13.25~~. Mitigation measures and residual effects of these impacts after mitigation are described in sections 13.9 and 13.10, below.

**Table 13.25: Potential impacts on land holdings - construction phase**

Land acquisition	Holding (See Fig 13.5 for numbered refs)	Land use	Potential impacts
Permanent acquisition	15) SWT land on Wisley Common bordering A3 at Cockcrow Hill	Low density conservation grazing	Loss of 0.48 ha of heathland grazing bordering A3 (Grade 5). Noise and dust on surrounding land.
	13) SWT land bordering M25 north of Pond Farm	Rough grazing	Loss of 0.24 ha of rough grazing (Grade 3b). Noise and dust on surrounding land.
	11) Land bordering east side of Ockham Park junction (owned by MAFF and farmed by Old Rectory Farm, Ockham)	Part of a 50.0 ha mixed farm	Loss of 0.18 ha of grassland (BMV land in Grade 3a) from a 50.0 ha farm. Noise and dust on surrounding land.
Temporary acquisition	8) Nutberry Farm smallholding west of Ockham junction	Smallholding with no alternative land	Temporary loss of 5.31 ha of a 15.0 ha smallholding (BMV land in Grades 2 and 3a). Noise and dust on surrounding land.
	9) RHS land next to Buxton Wood (tenanted by SWT)	Rough grazing	Temporary loss of 3.03 ha of rough grazing (Grade 3b). Noise and dust on surrounding land.
	10) SWT land on Wisley Common bordering M25	Low density conservation grazing	Temporary loss of 2.07 ha of heathland grazing (Grade 5 land). Noise and dust on surrounding land.
	14) RHS Wisley land bordering M25 north west of Pond Farm	Rough grazing	Temporary loss of 0.4 ha of rough grazing (Grade 3b). Noise and dust on adjacent land
Replacement land	Park Barn Farm	Currently low (ungrazed) but potentially medium if restocked	Loss of 14.58 ha of grassland (2.9 ha of BMV land Grade 3a and 11.68 ha of 3b) to be converted to heathland and woodland and registered as Common or public open space.
	4) Land at Hatchford End, part of Poynters Farm	17 ha, part of an equestrian enterprise with stabling and exercise areas	Loss of 0.5 ha of a 17.0 ha block of land used for equestrianism (BMV land in Grade 3a). Possible disruption to local field drainage system if ditches not maintained.

Land acquisition	Holding (See Fig 13.5 for numbered refs)	Land use	Potential impacts
SPA compensation areas	5) Wisley SPA (part of SWT's Pond Farm)	Rough grazing	Management of this 1.0 ha field of rough grassland (Grade 3b) under its SPA status will include woodland grazing.
	6) Ockham Common/Sandpit Hill (17.2 ha) and Cockcrow Hill (1.8 ha)	Low density conservation grazing	Management of these 19 ha (Grade 5) under their SPA status will involve selective tree and scrub clearance (mostly of plantation conifer species and birch) to extend the heathland habitat or improve the woodland habitat as support for the SPA species. Grazing will continue to be important for heathland management and the grazing quality should improve as heath species flourish.
	12) Land at Old Lane, Hatchford End	Rough grazing reverting to scrub	Management of this 1.3 ha of rough grassland (BMV land in Grade 3a), reverting to scrub, will include woodland grazing.

### Operation

- 13.8.79 All land-take impacts resulting from permanent acquisition of land and creation of SPA compensation areas will continue into the operation phase. Noise and dust associated with construction will have ceased and land temporarily acquired will have been restored and returned to the owners.
- 13.8.80 Operational impacts on BMV are summarised in [Table 13.26](#)~~Table 13.26~~~~Table 13.26~~~~Table 13.26~~.

**Table 13.26: Potential impacts on BMV – operational phase**

Land acquisition	Holding (See Fig 13.5 for numbered refs)	Land use	Potential impacts
Permanent acquisition	15) SWT land on Wisley Common bordering A3 at Cockcrow Hill	Low density conservation grazing	Loss of 0.48 ha of heathland grazing bordering A3 (Grade 5).
	13) SWT land bordering M25 north of Pond Farm	Rough grazing	Loss of 0.24 ha of rough grazing (Grade 3b).
	11) Land bordering east side of Ockham Park junction (owned by MAFF and farmed by Old Rectory Farm, Ockham)	Part of a 50.0 ha mixed farm	Loss of 0.18 ha of grassland (BMV land in Grade 3a) from a 50.0 ha farm.

Land acquisition	Holding (See Fig 13.5 for numbered refs)	Land use	Potential impacts
Replacement land	Park Barn Farm	Currently ungrazed) but potentially restockable	Loss of 14.58 ha of grassland (2.9 ha of BMV land in Grade 3a and 11.68 ha of 3b) to be converted to heathland and woodland and registered as Common or public open space.
	4) Land at Hatchford End, part of Poynters Farm	17 ha, part of an equestrian enterprise with stabling and exercise areas	Loss of 0.5 ha of a 17.0 ha block of land used for equestrianism (BMV land in Grade 3a) to be public open space with woodland.
SPA compensation areas	5) Wisley SPA (part of SWT's Pond Farm)	Rough grazing	Management of this 1.06 ha field of rough grassland (Grade 3b) under its SPA status will include woodland grazing.
	6) Ockham Common/Sandpit Hill (17.2 ha) and Cockcrow Hill (1.8 ha)	Low density conservation grazing	Management of these 19.55 ha (Grade 5) under their SPA status will involve selective tree and scrub clearance (mostly of plantation conifer species and birch) to extend the heathland habitat or improve the woodland habitat as support for the SPA species. Grazing will continue to be important for heathland management and the grazing quality should improve as heath species flourish.
	12) Land at Old Lane, Hatchford End	Rough grazing reverting to scrub	Management of this 1.3 ha of rough grassland (BMV land in Grade 3a), reverting to scrub, will include woodland grazing.

## Development land

### *Construction*

- 13.8.81 Land take from development land is required on a permanent basis from the former Wisley Airfield site, affecting the land subject to an emerging policy site allocation and an extant consent for an in-vessel composting plant. The land is to be used to construct the new Wisley Lane. Land is also needed at this site on a temporary basis, primarily to provide for a construction compound. The land take from Wisley Airfield is located at the extreme west of the site, adjacent to the A3.
- 13.8.82 At RHS Wisley, part of the car park is required to reconfigure the access from the realigned Wisley Lane.
- 13.8.83 It is not considered that the Highways England proposed junction 10-16 Smart Motorway Programme will experience impacts as the land is already in use by Highways England and the Scheme will be delivering part of the SMP.

- 13.8.84 A new access road off Seven Hills Road South is to be created for the use of Feltonfleet School, where there is an extant planning consent for significant new teaching facilities, staff accommodation, a rifle range, new maintenance facilities, a new boundary wall along Byfleet road, and associated demolition works.
- 13.8.85 Development land is required for a temporary satellite construction compound at the former San Domenico restaurant site, as well as a permanent realigned access road/public bridleway running alongside the northern side of the A3. An application was refused at this site for a new petrol filling station, due to incompatible highways access. This application has been considered as the application is still eligible for appeal, however it is viewed that it is unlikely to come to fruition.
- 13.8.86 Land take affecting Development Land sites is set out in Table 13.27 below.

**Table 13.27: Potential impacts on Development Land**

Development site	Total Area m <sup>2</sup>	Temporary land take m <sup>2</sup>	Permanent land take m <sup>2</sup>	Proposed Use
The former Wisley Airfield Site Allocation A35 in the Proposed Submission Local Plan: strategy and sites 2016	<del>1,145,479</del> <u>927,881</u>	<del>82,800</del> <u>9,768</u>	<del>33,797</del> <u>30,689</u>	Land take from the former Wisley Airfield site for the Wisley Lane realignment, pre-earth work ditches and flood compensation area and construction site compound.
The former Wisley Airfield Planning application refs. SCC 2012/0034 Guildford. 12/P/00533	<del>165,276</del> <u>167,779</u>	<del>54,680</del> <u>59,632</u>	<del>33,797</del> <u>39,610</u>	Land take from the proposed in-vessel composting facility site for the Wisley Lane realignment, pre-earth work ditches, flood compensation area and construction site compound.
RHS Gardens, Wisley Lane, Wisley, Woking, GU23 6QS Planning permission reference, 16/P/01080	<del>731,519</del> <u>129,598</u>	<del>9,674</del> <u>6,581</u>	<del>8,148</del> <u>2,962</u>	Land take from the RHS Wisley carpark for pre-earth work ditch, realigning the entry to the car park, NMU crossing, planting and relocation of bus stop.
Former San Domenico Restaurant (Planning ref. 2017/0524)	<del>23,919</del> <u>23,906</u>	<del>19,309</del> <u>19,294</u>	<del>4,558</del> <u>4,612</u>	Demolition of existing main building. The land take for use as a site compound would include part of the sites vehicle circulation area/hard standing and landscaped area and there would no longer be access from the A3. A realigned local access road/public bridleway would run through this site permanently, parallel to the A3.

Development site	Total Area m <sup>2</sup>	Temporary land take m <sup>2</sup>	Permanent land take m <sup>2</sup>	Proposed Use
Feltonfleet School Planning ref. 2017/2106	<del>69,098</del> <u>53,852</u>	<del>1,546</del> <u>1,548</u>	<del>1,201</del> <u>799</u>	A new two-way gated access from Seven Hills Road (South) into Old Byfleet Road, to be used by Feltonfleet School, removing access directly onto A245. Land take at site periphery for alterations to slip roads, soakaways and a left-turn only lane at Painshill junction onto A245.

13.8.87 There is no land take proposed from other Development Land sites.

13.8.88 For other Development Land sites, where the Scheme would run close to the site boundary, but not involve any land take, it is not viewed that there would be significant effects to potential developments (either adverse or beneficial) as a result of works in proximity to the land. The other Development Land listed would not be affected unduly due to the nature of the works proposed at these sites or the location of these sites close to an area of the Scheme where there would be minimal disruption.

#### *Operation*

13.8.89 The potential growth of the area from development of the former Wisley Airfield site and other local developments, will bring more traffic over and above existing conditions. Without the Scheme to address this potential increase in traffic, the road network could become highly congested resulting in delays. Therefore, the Scheme presents beneficial impacts and opportunities in supporting development growth.

### **Non-motorised users**

#### *Severance*

13.8.90 The Scheme is likely to temporarily or permanently affect areas of common land and open space where members of the public are free to roam, and also affect a number of PRow, including existing crossings points over the A3 and M25, and footpaths associated with local roads.

#### *Construction*

13.8.91 Existing routes, including formal PRow and informal pathways within common land and open space, will be subject to land take, resulting in temporary and/or permanent closure or diversion.

13.8.92 Changes in journey time and journey distance resulting from closure and/or diversion of routes and increased difficulty in road crossing, either temporarily or permanently, will result in changes to travel patterns for NMU.

#### *Operation*

13.8.93 Temporarily affected routes may return to their original use after construction of the Scheme is complete. Where the Scheme requires permanent alteration of

such routes they will be re-provided in a similar location. These routes are likely to be similarly advantageous to current routes. These routes are predominantly used for recreation and as such their users are less sensitive to diversion.

- 13.8.94 Usage of the proposed Redhill Road overbridge will improve connectivity over the A3 as will the proposed new Sandpit Hill overbridge to the east of the junction. The Scheme includes proposals for new, altered and improved PRow that will improve conditions and accessibility for NMU.

#### *Amenity*

##### *Construction*

- 13.8.95 NMU's within the study area will be affected by traffic, noise, air quality and the visual effects of the road network as a result of construction activities, giving rise to changes in amenity.
- 13.8.96 Construction traffic movements (particularly HGV's) will increase traffic volume, in the surrounding highway network. This has potential to make road crossing more difficult, dangerous, intimidating, or time consuming for NMU. There may also be rerouting of normal traffic during construction which could change traffic levels on local roads.

##### *Operation*

- 13.8.97 Generally, it is anticipated that journey amenity will be improved for NMU during operation.
- 13.8.98 During operation, NMU and restricted vehicular traffic will share crossing facilities at the Cockrow overbridge and Wisley Lane overbridge. Currently the Wisley Lane overbridge is for NMU only and Cockrow Bridge is for NMUs plus vehicles accessing the SWT land. Traffic on the replacement Wisley Lane bridge will be segregated from NMUs whilst vehicle movement numbers on the Cockrow bridge are likely to be very low and therefore this is not likely to result in a deterioration in amenity.
- 13.8.99 The new NMU route along the A3 will be wider, better surfaced and separated from the road more. It will no longer be on the junction 10 roundabout but will use the new Sandpit Hill overbridge over the M25 just to the east of junction 10. These changes will provide a benefit for users of this facility. New and upgraded PRow are also proposed in the replacement land parcels and in the publicly accessible land to improve and formalise connectivity in the area around the junction. These changes will provide improvements to the amenity for NMU and are identified on Figure 13.3.
- 13.8.100 Re-provided access arrangements proposed for Feltonfleet School will result in a minor improvement in amenity for NMU traffic by moving access away from the A245 dual carriageway.

## **Vehicle Travellers**

### *Views from the Road*

- 13.8.101 The Scheme is likely to noticeably alter the views experienced by users of junction 10, slip roads, M25, A3, A245 and local roads. The vegetation clearance needed to construct the Scheme will open up views from the roads to some

extent until it regrows, but the introduction of new signs and gantries is likely to diminish the quality of views giving a more urbanised experience and detracting from the rural feel of the driving experience.

### *Driver Stress*

#### *Construction*

- 13.8.102 During construction of the Scheme, driver stress is anticipated to be temporarily adversely affected, due to traffic management, changed road alignments and temporary signs and lanes. These factors will bring about increased: driver frustration due to reduced speeds; driver fear linked to reduced lane width and presence of other vehicles; and route uncertainty associated with temporary road layouts and signage.

#### *Operation*

- 13.8.103 Once operational, driver stress is expected to reduce through a more efficient road network, reduced route uncertainty, reduced queueing, congestion and risk of conflicts and collisions.
- 13.8.104 In the longer term, the trend for increased vehicle flows means that driver stress is expected to have returned to high levels by 2037. However, if the Scheme were not to take place it would be expected that driver stress in the context of future traffic scenarios will be greater than with the Scheme.

## **13.9 Design, mitigation and enhancement measures**

- 13.9.1 There are opportunities to introduce mitigation and enhancement measures into the Scheme design, and in the management of construction impacts. The design has been developed with the mitigation of impacts on communities, future development and housing requirements in mind. The use of best practice construction methods will reduce disruption to users of residential, community and other receptors near the Scheme and minimise the effects on the community.
- 13.9.2 The following measures have been developed to minimise adverse effects or enhance the Scheme.

### **Construction**

#### *Design*

##### *Private dwellings*

- 13.9.3 The extent of land take and changes in access will be limited, to reduce the direct impacts on all receptors. Ongoing access for private dwellings will be maintained.
- 13.9.4 Noise barriers and planting will be provided to minimise noise and visual impacts on local communities particularly those living within 200 m of the Scheme.

##### *Community assets*

- 13.9.5 Ongoing access for businesses will be maintained. Severance for nearby communities will be minimised through the diversion and re-provision of PRowS.

- 13.9.6 Replacement areas for common land will be identified and delivered of an equivalent quality and in an appropriate location to support ongoing use by existing users/groups.
- 13.9.7 The extent of direct, permanent land take affecting identified individual receptors will be limited as much as possible. The extent of severance impacting upon individual receptors will also be minimised.

*Mitigation*

*Private dwellings*

- 13.9.8 Alternative access arrangements will be made for properties, should the existing accesses be temporarily closed during the construction phase.
- 13.9.9 Liaison will be managed with Wilderness Cottage to ensure they can access and egress their property at all times during the improvements to Old Lane.
- 13.9.10 A Best Practicable Means (BPM) approach will be undertaken for daytime and night-time construction works to minimise noise, vibration and dust disposal impacts at residential receptors. Control measures will also be set out in the Construction Environmental Management Plan.
- 13.9.11 Less intensive piling processes will be used close to sensitive receptors as part of a BPM approach.
- 13.9.12 Mitigation measures will incorporate environmental design mitigation from the other topics, notably Landscape, Air Quality and Noise and Vibration which are linked to this topic.

*Community assets*

- 13.9.13 Construction works will be programmed so that affected PRow, footpaths or cycleways remain open for all of or part of the construction period.
- 13.9.14 A clear and consistent footpath and cycleway signage strategy will be designed and implemented, to direct users during construction and to support access to community and recreational facilities.
- 13.9.15 Users of affected PRow, footpaths and cycleways should be notified of planned diversions, at least one month prior to the works, with signs along sections to be closed during construction.
- 13.9.16 The provision of continued emergency vehicle access to local residents. will be ensured.
- 13.9.17 The 715 and C1/C2 bus routes will be maintained and disruption managed, preparing for the removal and relocation of existing bus stops at Wisley Lane and Painshill junction. Potential disruption should be discussed with local public bus companies, RHS Wisley and Painshill Park in advance.
- 13.9.18 Clear signage and provision of access information for all users will be provided before operation.
- 13.9.19 Pedestrian linkages and accessibility will be maintained.
- 13.9.20 As with residential receptors a Best Practicable Means (BPM) approach will be undertaken for daytime and night-time construction works to minimise noise,

vibration and dust disposal impacts at community receptors. Control measures will also be set out in the Construction Environmental Management Plan.

- 13.9.21 Less intensive piling processes will be used close to sensitive receptors as part of a BPM approach.
- 13.9.22 Construction activities will be undertaken, if possible, outside of school hours at school locations, mindful of exam seasons to avoid amenity impacts.
- 13.9.23 High quality amenity planting will be replaced.
- 13.9.24 Effects on the wider region from the construction of the Scheme in terms of the economy and employment would be expected to be positive in terms of job creation and expenditure and so do not require mitigation. No specific measures to enhance these benefits have been identified at this stage. Though this could cover approaches to increase the local content of labour and supply chain requirements.
- 13.9.25 However, some travel and access disruption from the works could impact the local business base and residents' access to employment and community facilities. A Traffic Management Plan, produced by the contractor, should be used to set out measures for mitigating negative effects for road users during construction and to ensure the businesses that require customer, supply chain and delivery access are not impacted significantly.
- 13.9.26 SWT's Pond Farm is accessed from the A3/M25 north bound slip road and the land grazed by the Trust is on both sides of the M25 and A3, connected by the Cockcrow and Clearmount overbridges. These bridges will be demolished, but only after the new bridges are in place. Therefore, there will be no severance.
- 13.9.27 Land acquired temporarily for construction compounds and working areas will be restored to a condition equivalent to its original before being returned to its owner.
- 13.9.28 The construction process will generate noise and dust, which, unless controlled, may adversely affect livestock (noise) and grazed vegetation (dust). Mitigation measures are outlined in Chapter 5 (Air Quality) and Chapter 6 (Noise and Vibration) of this report. Control measures will be set out in the Construction Environmental Management Plan.
- 13.9.29 SPA compensation land will continue to be grazed as part of the future management regime.
- 13.9.30 Where land take is required for the Scheme, it is assumed land owners will be compensated financially for the loss in accordance with the District Valuer's assessment. Further details of the extent of financial compensation are beyond the scope of this assessment.
- 13.9.31 No other mitigation is possible for the permanent loss of agricultural land and associated soils.
- 13.9.32 Engineered and other mitigation measures to minimise construction impacts on farming interests will be agreed with land owners and tenants before and during the construction process. Essential measures are:
  - Demarcation of the construction working corridor once defined, in order to prevent disturbance to adjacent areas;
  - Provision of temporary access to fields, as required;

- Erection of livestock fencing along the working corridor, where required;
- Provision of drinking water for livestock, as necessary; and
- Diversion or restoration of land drainage systems affected by the Scheme.

13.9.33 The quality and quantity of soil on site will be maintained by implementing appropriate techniques for stripping, stockpiling and reinstatement, in accordance with Defra's 2009 Code of Practice for the Sustainable Use of Soils on Construction Sites. This approach will be adopted in a Soil Handling and Management Strategy (SHMS), which will in due course form part of the Construction Environmental Management Plan (CEMP). A qualified soil scientist will supervise all aspects of this work.

#### *Vehicle Travellers*

13.9.34 Communication will be disseminated locally of the improvements to accessibility, connectivity and journey times.

#### *Enhancements*

13.9.35 Green Bridges at Clearmount and Cockrow Bridges will be delivered through Designated Funds.

13.9.36 A clear and easy to access complaints and advice helpline will be set up, complaints responded to, investigated and addressed promptly.

13.9.37 No specific measures to enhance employment opportunities during the construction phase have been identified at this stage. However, some examples would be recruitment for construction jobs locally and procurement of goods and services to start at district and regional levels to increase local employment and job opportunities.

13.9.38 Some travel and access disruption from the works could impact local businesses and residents' access to the local businesses. A Traffic Management Plan, produced by the contractor, should be used to mitigate a number of effects for road users during construction and to ensure the businesses which require customer, supply chain or delivery access are not impacted significantly.

### **Operation**

#### *Design*

13.9.39 As Scheme design develops, access arrangements for private dwelling and business receptors should be considered and further information can be used to inform the detailed design.

#### *Mitigation*

13.9.40 Operational mitigation measures will be designed during the construction phase e.g. noise barriers, low noise road surfaces, surface water drainage and additional planting to reduce visual impacts.

13.9.41 Land within the DCO boundary that is not required for the Scheme permanently will be restored to its original use.

13.9.42 Land which was occupied or disturbed during the construction process that is not permanently acquired for engineering and landscaping will be restored to a

condition equivalent to its original. It will be subject to an aftercare period, of a duration to be agreed as part of the DCO approval process or subsequently by the local authority, during which time problems with settlement, drainage and weed infestation will be rectified.

- 13.9.43 No additional operation phase mitigation measures have been identified at this stage.

*Enhancements:*

- 13.9.44 No specific operation phase enhancement measures have been identified at this stage.

## 13.10 Assessment of effects

### Likely significant effects

#### *Private Dwellings*

##### *Construction: Land take and changes in access*

- 13.10.1 The sensitivity of all residential receptors, including their access, is considered to be high as set out in Table 13.4.
- 13.10.2 To enable construction, the former San Domenico restaurant site, which includes an ancillary flat, is to be demolished to enable the use of the site as a satellite construction compound. The site is currently vacant and therefore no relocation is required. No environmental mitigation is possible for this loss. No other private dwellings are due to be demolished. Moderate sensitivity for the San Domenico restaurant site has been assigned as the site was not primarily in residential use, and is currently vacant.
- 13.10.3 During construction, access changes are required for private dwellings.
- 13.10.4 The properties on Elm Lane will have re-provided safer but less advantageous access. Access will no longer be achieved to/from the A3 via Elm Lane. The Elm Lane BOAT to be improved to enable access via Old Lane. The existing access arrangements will be maintained until the new access is constructed.
- 13.10.5 Wilderness Cottage is currently accessed from Old Lane via Hatch Lane. When works to improve Old Lane are underway traffic management will need to be in place to ensure they can access and egress their property at all times.
- 13.10.6 The journey length and time for Hut Hill Cottage on Wisley Common will be affected once the new Cockrow Bridge Overbridge is completed and brought into use (Via Old Lane) and the existing access (also used by Surrey Wildlife Trust and the Birchmere Scout Camp) from the A3 is stopped up. Access will be maintained at all times throughout construction.
- 13.10.7 Properties in Wisley village currently have direct access from the A3. Once the new Wisley Lane alignment is in place the direct access will be closed up and this this will lead to a less convenient but safer access.
- 13.10.8 ~~Table 13.28~~~~Table 13.28~~~~Table 13.28~~~~Table 13.28~~ provides the findings of the assessment of effects on private dwellings.

**Table 13.28: Likely significant effects on land take and severance of private dwellings during construction**

Receptor	Nature of Impact	Sensitivity of Receptor	Magnitude of Impact	Significance of Effect
Bedford Gate, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
Blenheim Cottage, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
Orchard Cottage, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
Woodside Cottage, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
South Acre, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
Rose Cottage, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
Twenty Twelve, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
Meadow Cottage, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
March Hare Cottage, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
1 Fellside Cottages, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
2 Fellside Cottages, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
Primrose Cottage, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
Bedford Gate Cottage, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
Reynards, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
Ravenscraig, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
1 Mount Pleasant, Elm Corner	Access via Old Lane as A3 access stopped up	High	Minor (adverse)	Slight (adverse)
Wilderness Cottage	Access via Old Lane to be managed to ensure access maintained at all times.	High	Minor (adverse)	Slight (adverse)
Hut Hill Cottage	Access via Old Lane and Cockcrow Overbridge as A3 access stopped up.	High	Minor (adverse)	Slight (adverse)
Long Orchard House (including the Coach House and Fir Tree Cottage)	Access via Redhill Road and new Local Access Road or A245, Seven Hills Road and Local Access	High	Minor (adverse)	Slight (adverse)

Receptor	Nature of Impact	Sensitivity of Receptor	Magnitude of Impact	Significance of Effect
	Road. A3 direct access stopped up.			
Long Orchard Farm check all properties captured	Land take Access via Redhill Road and new Local Access Road or A245, Seven Hills Road and Local Access Road. A3 direct access stopped up.	High	Minor (adverse)	Slight (adverse)
Former San Domenico restaurant (flat)	Demolition Land take Access via Redhill Road and new Local Access Road or A245, Seven Hills Road and Local Access Road. A3 direct access stopped up.	High	Moderate (adverse)	Moderate (adverse)
Park Barn Farm	Land take, but not directly from the residential.	High	Negligible	Neutral
Court Close Farm	Access from A3 South Bound slip road and Painshill Local Access Road as A3 directs access stopped up.	High	Minor (adverse)	Slight (adverse)
New Farm	Access from A3 South Bound slip road and Painshill Local Access Road as A3 directs access stopped up.	High	Minor (adverse)	Slight (adverse)
Heyswood Guide Camp (Wardens Cottage)	Land take, but not directly from the residential. Access from A3 South Bound slip road and Painshill Local Access Road as A3 directs access stopped up.	High	Minor (adverse)	Slight (adverse)
1 – 5 Weybank, Wisley	Direct access from A3 to be stopped up and replaced by new Wisley Lane alignment	High	Minor (adverse)	Slight (adverse)
1-3 The Square, Wisley Lane	Direct access from A3 to be stopped up and replaced by new Wisley Lane alignment	High	Minor (adverse)	Slight (adverse)
1-6 Chittenden Cottages, Chittenden Close, Wisley	Direct access from A3 to be stopped up and replaced by new Wisley Lane alignment	High	Minor (adverse)	Slight (adverse)
1-15 Deers Farm Close, Wisley	Direct access from A3 to be stopped up and replaced by new Wisley Lane alignment	High	Minor (adverse)	Slight (adverse)

Receptor	Nature of Impact	Sensitivity of Receptor	Magnitude of Impact	Significance of Effect
1-5 Oakwood House, Wisley Lane	Direct access from A3 to be stopped up and replaced by new Wisley Lane alignment	High	Minor (adverse)	Slight (adverse)
Flats 1-5 The Old Village Hall, Wisley	Direct access from A3 to be stopped up and replaced by new Wisley Lane alignment	High	Minor (adverse)	Slight (adverse)
Orchard Cottages, Wisley Lane	Direct access from A3 to be stopped up and replaced by new Wisley Lane alignment	High	Minor (adverse)	Slight (adverse)
The Lilacs, Wisley Lane	Direct access from A3 to be stopped up and replaced by new Wisley Lane alignment	High	Minor (adverse)	Slight (adverse)
1-6 Royal Horticultural Society Cottages, Wisley Lane	Direct access from A3 to be stopped up and replaced by new Wisley Lane alignment	High	Minor (adverse)	Slight (adverse)
Riverside Cottage, Wisley Lane	Direct access from A3 to be stopped up and replaced by new Wisley Lane alignment	High	Minor (adverse)	Slight (adverse)

- 13.10.9 All the replacement accesses, although less convenient, will be safer.
- 13.10.10 During construction, no change to access is anticipated for other private dwellings, however an increase in journey time arising from temporary diversions cannot be ruled out and may result in a negligible effect.
- Construction: Amenity*
- 13.10.11 The Air Quality assessment (Chapter 5) has shown that any air quality effects due to construction dust will be temporary and can be suitably minimised by the application of standard and appropriate mitigation measures. On this basis, there is unlikely to be a significant effect on air quality due to the construction of the Scheme.
- 13.10.12 Chapter 6 Noise and Vibration identifies that that for construction noise, a potential significant effect could occur at sensitive receptors within 50-75 m of the loudest construction activities. This may cause a reduction in general amenity at those affected residential dwellings.
- 13.10.13 Significant adverse effects would occur from daytime construction works at sensitive receptors located within 50 m of the construction works, particularly close to the Painshill interchange and the A3 between junction 10 and the Painshill interchange. Adverse effects would occur up to approximately 150 m from the A3 and the M25, affecting sensitive residential receptors such as Hut Hill Cottage and Court Close Farm.
- 13.10.14 Significant adverse effects from night-time construction works are likely to occur at sensitive receptors within 1 km of the bridge demolition works at junction 10 due to the high noise levels caused by demolition and the increased receptor sensitivity during the night-time period (i.e. lower LOAEL/SOAEL threshold levels). Adverse effects would also occur at sensitive receptors within 225 m of road surfacing works on the A245.

- 13.10.15 After mitigation has been implemented, significant adverse effects are likely to still be present at West Lodge, which is located close to the Painshill interchange and the A3. The noise impact would be temporary and would cease when construction works move further away from the affected sensitive receptor. No significant adverse effects would occur at this receptor from construction works taking place at night.
- 13.10.16 During construction, Chapter 9 indicates that landscape and visual effects are anticipated at residential receptors.
- 13.10.17 At Court Close Farm, Heyswood Girl Guides Camp and New Farm during construction of the widened A3 and the new overbridge, some elements of the construction activity may be discernible from the receptors.
- 13.10.18 It is anticipated that during construction, the A3 widening works the proposed overbridge and construction of the alternative access to the A245 will be partially visible from Bramley Hedge Farm, Long Orchard Farm, Firtree Cottage and Foxwarren Cottage.
- 13.10.19 All the residential receptors affected are within a close proximity to the Scheme, typically 150 metres from the works.
- 13.10.20 The largest impacts during the construction phase would be due to the removal of screening vegetation and the presence of construction plant and machinery within the view. Due to the proximity of the Scheme, the erection of hoarding or screening fencing would not remove impacts to a degree that would further reduce the significance of effect.
- 13.10.21 ~~Table 13.29~~~~Table 13.29~~~~Table 13.29~~~~Table 13.29~~ summarises the potential effects on amenity of private dwellings during construction.

**Table 13.29: Likely significant effects on amenity of private dwellings during construction**

Receptor	Sensitivity of Receptor	Amenity effects pre-mitigation	Residual Amenity Impact post-mitigation	Post mitigation Amenity effect (yes or no) <sup>17</sup>	Magnitude of amenity Impact	Significance
Silvermere Lodge, Cobham	High	Significant adverse noise (day time construction) Significant adverse noise (night-time construction) Significant adverse construction vibration levels	Slight Adverse noise (day time construction)	No	Neutral	Slight adverse

<sup>17</sup> Two or more significant post-mitigation amenity contributing effects results in an amenity effect.

Receptor	Sensitivity of Receptor	Amenity effects pre-mitigation	Residual Amenity Impact post-mitigation	Post mitigation Amenity effect (yes or no) <sup>17</sup>	Magnitude of amenity Impact	Significance
Calvi, Cobham	High	Significant adverse noise (day time construction) Adverse noise (night time construction) Significant adverse construction vibration levels	Slight Adverse noise (day time construction)	No	Neutral	Slight adverse
West Lodge, Cobham	High	Significant adverse noise (day time construction) Adverse noise (night time construction)	Significant adverse noise (day time construction)	No	Neutral	Slight adverse
1 Fellside Cottage, Elm Corner	High	Adverse noise (day time construction) Significant (landscape and visual)	Significant (landscape and visual)	No	Neutral	Slight adverse
Reynards, Elm Corner	High	Adverse noise (day time construction) Significant (landscape and visual)	Significant (landscape and visual)	No	Neutral	Slight adverse
Hut Hill Cottage, Wisley	High	Adverse noise (day time construction) Significant adverse noise (night-time construction) Adverse construction	None	No	Neutral	Slight adverse

Receptor	Sensitivity of Receptor	Amenity effects pre-mitigation	Residual Amenity Impact post-mitigation	Post mitigation Amenity effect (yes or no) <sup>17</sup>	Magnitude of amenity Impact	Significance
		vibration levels				
The Cottage, Chatley Heath	High	Adverse noise (day time construction) Significant adverse noise (night-time construction) Significant adverse construction vibration levels	None	No	Neutral	Slight adverse
Court Close Farm, Cobham	High	Adverse noise (day time construction) Significant adverse noise (night-time construction) Adverse construction vibration levels	None	No	Neutral	Slight adverse
Painshill Farm, Cobham	High	Adverse noise (day time construction) Adverse noise (night time construction) Adverse construction vibration levels	None	No	Neutral	Slight adverse
Caigers Cottage, Cobham	High	Adverse noise (day time construction) Adverse noise (night time construction)	None	No	Neutral	Slight adverse

Receptor	Sensitivity of Receptor	Amenity effects pre-mitigation	Residual Amenity Impact post-mitigation	Post mitigation Amenity effect (yes or no) <sup>17</sup>	Magnitude of amenity Impact	Significance
		Adverse construction vibration levels				
The Lodge, Cobham	High	Significant adverse noise (night-time construction)	None	No	Neutral	Slight adverse
Pointers South Cobham	High	Adverse noise (night time construction)	None	No	Neutral	Slight adverse
Foxwarren Cottage, Cobham	High	Significant adverse construction vibration levels	None	No	Neutral	Slight adverse
Squirrel Wood, Cobham	High	Significant adverse construction vibration levels	None	No	Neutral	Slight adverse
The Spinney, Cobham	High	Significant adverse construction vibration levels	None	No	Neutral	Slight adverse
Heyswood Girl Guide Campsite (wardens cottage)	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
Feltonfleet Lodge	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
The Cottage, Cobham	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
West Lodge, Cobham	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse

Receptor	Sensitivity of Receptor	Amenity effects pre-mitigation	Residual Amenity Impact post-mitigation	Post mitigation Amenity effect (yes or no) <sup>17</sup>	Magnitude of amenity Impact	Significance
East Lodge, Cobham	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
Oakwood House, Cobham	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
Petit Tor, Cobham	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
Little Warren, Cobham	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
Manor Pond House, Cobham	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
Two Beeches, Cobham	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
Tudor House, Cobham	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
Lingwood, Cobham	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
Old Lodge, Cobham	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
Old Trees, Cobham	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
Inglewood, Cobham	High	Adverse construction vibration levels	None	No	Neutral	Slight adverse
Wood Court	High	Adverse construction	None	No	Neutral	Slight adverse

Receptor	Sensitivity of Receptor	Amenity effects pre-mitigation	Residual Amenity Impact post-mitigation	Post mitigation Amenity effect (yes or no) <sup>17</sup>	Magnitude of amenity Impact	Significance
Lodge, Cobham		vibration levels				
Bramley Hedge Farm	High	Significant (landscape and visual)	Significant (landscape and visual)	No	Neutral	Slight adverse
Long Orchard Farm	High	Significant (landscape and visual)	Significant (landscape and visual)	No	Neutral	Slight adverse
Firtree Cottage	High	Significant (landscape and visual)	Significant (landscape and visual)	No	Neutral	Slight adverse
Foxwarren Cottage	High	Significant (landscape and visual)	Significant (landscape and visual)	No	Neutral	Slight adverse

13.10.22 ~~Table 13.28~~~~Table 13.28~~~~Table 13.28~~~~Table 13.28~~ above identifies that there are no two interacting amenity effects on dwellings in the study area during construction post mitigation.

*Operation: Land take and changes in access*

13.10.23 No direct physical impact upon private dwellings is expected during operation. Any land take and access changes required by the Scheme will occur during the construction phase.

*Operation: Amenity*

13.10.24 The air quality assessment (Chapter 5) has shown that the operational Scheme is not expected to have a significant effect on receptors.

13.10.25 Chapter 6 Noise and Vibration identifies that significant adverse (indirect) effects are anticipated at Ockham and Alms Heath and Bridge End, Martyr's Green and Hatchford End, however these occurred with and without the Scheme and are attributed to the proposed development at the former Wisley Airfield.

13.10.26 A significant beneficial effect is anticipated at the former San Domenico site once the Scheme is operational due to predicted noise levels decreasing by more than 1 dB with the Scheme, over that predicted without the Scheme.

13.10.27 Chapter 9, Landscape and visual, of this ES indicates that it is expected that views would deteriorate as a result of the New Red Hill overbridge for residents of Court Close Farm, Heyswood Girl Guides camp and New Farm (in the Opening Year).

13.10.28 Table 13.30 below identifies that there are no anticipated interacting amenity effects on dwellings in the study area once the Scheme is operational.

**Table 13.30: Effects in amenity on private dwellings during operation**

Receptor	Sensitivity of Receptor	Amenity Impact pre-mitigation	Significant Residual Amenity Impact post-mitigation	Post-mitigation Amenity effect (yes or no)	Magnitude of Impact	Post mitigation significance
San Domenico	High	Significant beneficial (Noise) – Opening Year	Significant beneficial (Noise) – Opening Year	Yes	Neutral	Slight beneficial
Court Close Farm	High	Significant (landscape and visual) – Opening Year	Significant (landscape and visual) – Opening Year	No	Neutral	Slight adverse
Heyswood Girl Guides Camp (Wardens Cottage)	High	Significant (landscape and visual) – Opening Year	Significant (landscape and visual) – Opening Year	No	Neutral	Slight adverse
New Farm	High	Significant (landscape and visual) – Opening Year	Significant (landscape and visual) – Opening Year	No	Neutral	Slight adverse

*Community assets*

*Construction: Land take and Severance*

- 13.10.29 The effects of land take and severance on community assets during construction is set out in Table 13.31. Only those receptors with temporary land take effects are shown. All other community asset receptors (see Appendix 13.1 for full list assessed) are anticipated to have no land take and thus, a neutral effect in the construction phase. Note that the assessment set out below does not account for potential mitigation, including in the form of Replacement Land.
- 13.10.30 In order to identify the likely magnitude, professional judgement, knowledge and best practice has been used to consider local context. The area is characterised by large areas of open space with access from a number of NMU routes (the effect on NMU routes is fully assessed later in section 13.10).
- 13.10.31 The majority of the community assets in the study area are reachable by motorised vehicles and have alternative access provision. Vehicle travellers are considered to be less sensitive than NMU to diversions and/or increased journey lengths, it is therefore considered that visitors accessing community assets by road are less likely to be deterred from making trips due to construction effects. With appropriate re-routing and traffic management mitigation in place, the magnitude of temporary disruption has been categorised as minor adverse and the significance ranging from neutral to moderate adverse depending on sensitivity of asset.

- 13.10.32 The phased removal of A3 Painshill junction to Ockham junction NMU route during the construction phase will have an effect on the accessibility by non-vehicular modes of transport for those accessing Painshill Park from south of the A3/junction 10a junction and for those accessing Ockham Common from north of the A3/junction 10a junction. Alternative routes are available, and diversions will be put in place for cyclists, but these are likely to result in a longer journey length. Pedestrians and horse riders would have to use non-surfaced paths within the commons away from the junction. This could have an adverse effect on pedestrians, in particular this may impact the elderly, the very young, and those who are otherwise mobility or visually impaired. The severance to NMU is therefore considered to be moderate adverse, resulting in a significance of neutral to moderate adverse depending on the sensitivity of the asset.
- 13.10.33 Temporary land take during construction is presented in Table 13.31 and it considered to be significant adverse at the high sensitivity receptors of Ockham Common and Curries Clump and slight adverse at Wisley Common (since nearly 75% of the temporary land take will be short term exclusions associated with habitat enhancement works). These effects are temporary in nature. Mitigation for this effect should include land being returned and restored to previous condition. All other receptors are considered to have non-significant effects.
- 13.10.34 Table 13.31 sets out permanent land take of community assets during construction. The land take of these assets will occur in the construction phase and have been assessed as a construction effect, however, the effect will be permanent. Whilst extensive land take is anticipated at Sandpit Hill and Redhill Bottom, these receptors are not of high community value and alternatives are available for outdoor recreation and leisure. Therefore, no significant effects are anticipated in the construction phase due to permanent land take.

**Table 13.31: Temporary land take and severance effects on community assets during construction (affected receptors only)**

Receptor	Total site area (m <sup>2</sup> )	Temporary land take (m <sup>2</sup> )	Temporary land take as a %	Permanent land take (m <sup>2</sup> )	Permanent land take as a %	Total % land take during construction	Sensitivity	Effect Grading / Magnitude	Significance
Ockham Common	325,698.31	325,698.31	100%	42,028.97	13%	100%	High	Major	Large Adverse  It is considered that the effect will be of large adverse significance. The majority of the site will remain accessible by the public, though enjoyment of this receptor may be reduced. A large area remains accessible and alternative nearby open spaces are available.
Curries Clump	11,580.04	11,580.04	100%	42.53	0.4%	100%	Low	Major	Slight Adverse

Receptor	Total site area (m <sup>2</sup> )	Temporary land take (m <sup>2</sup> )	Temporary land take as a %	Permanent land take (m <sup>2</sup> )	Permanent land take as a %	Total % land take during construction	Sensitivity	Effect Grading / Magnitude	Significance
									It is considered that this effect is slight adverse due to available alternatives for outdoor recreation and the low value of this receptor.
Chatley Heath	281,051.76	33,238.27	12%	11,000	4%	16%	High	Minor	Slight Adverse
Hut Hill	48,606.55	4,135.63	9%	148.45	0.3%	9%	Low	Minor	Neutral
Pains Hill Park	865,855.97	22,858.65	3%	28,746.28	3%	6%	High	Minor	Slight Adverse
Feltonfleet School	70,510.06	1,546.25	2%	1,269.17	2%	4%	High	Minor	Slight Adverse
RHS Wisley	635,962.43	9,235	1.45%	8112	1.28%	2.7%	High	Minor	Slight Adverse
<u>Wisley Common – submission DCO</u>	<u>1,618,830</u>	<u>295,967</u>	<u>18.3%</u>	<u>50,926</u>	<u>3.1%</u>	<u>21.4%</u>	<u>High</u>	<u>Minor</u>	<u>Slight Adverse</u>
<u>Wisley Common – Proposed DCO changes</u>	<u>1,618,830</u>	<u>1,165</u>	<u>0.07%</u>	<u>=</u>	<u>=</u>	<u>0.07%</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<u>Wisley Common – total after Proposed DCO changes</u>	<u>1,618,830</u>	<u>297,141</u>	<u>18.4%</u>	<u>50,926</u>	<u>3.1%</u>	<u>21.5%</u>	<u>High</u>	<u>Minor</u>	<u>Slight Adverse</u>



*Construction: Amenity*

**Table 13.32: Amenity effects on community assets during construction**

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
Ockham Common	Neutral noise and vibration No significant air quality effect Moderate adverse visual effect (significant)	Neutral noise and vibration No significant air quality effect Moderate adverse visual effect (significant)	High	No	n/a	n/a
Wisley Common	Neutral noise and vibration No significant air quality effect Moderate adverse visual effect (significant)	Neutral noise and vibration No significant air quality effect Moderate adverse visual effect (significant)	High	No	n/a	n/a
Painshill Park	The Tower at Painshill park (significant adverse daytime construction noise effect and significant adverse night-time construction noise effects). Significant adverse vibration effects. No significant air quality effect Slight to moderate adverse visual effects (significant)	No significant noise effects post-mitigation. Neutral noise and vibration. No significant air quality effect Slight to moderate adverse visual effects (significant)	High	No	n/a	n/a
RHS Gardens Wisley	Neutral noise and vibration No significant air quality effect Slight adverse visual effect (not significant)	Neutral noise and vibration No significant air quality effect Slight adverse visual effect (not significant)	High	No	n/a	n/a

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
Feltonfleet School	<p>Significant adverse daytime construction noise effect. Adverse night-time construction noise effect. Adverse vibration effects.</p> <p>No significant air quality effect</p> <p>Slight to moderate adverse visual effect (significant)</p>	<p>No significant noise effects post-mitigation No significant air quality effect</p> <p>Slight to moderate adverse visual effect (significant)</p>	High	No	n/a	n/a
Walton Firs Adventure Camp	<p>Neutral noise and vibration</p> <p>No significant air quality effect</p> <p>No visual effect anticipated (outside study area and not individually assessed)</p>	<p>Neutral noise and vibration</p> <p>No significant air quality effect</p> <p>No visual effect anticipated (outside study area and not individually assessed)</p>	Low	No	n/a	n/a
St George's Nursing Home	<p>Adverse vibration effects.</p> <p>No significant air quality effect</p> <p>No visual effect anticipated (outside study area and not individually assessed)</p>	<p>Neutral noise and vibration</p> <p>No significant air quality effect</p> <p>No visual effect anticipated (outside study area and not individually assessed)</p>	High	No	n/a	n/a
Ripley Village Green	<p>Neutral noise and vibration</p> <p>No significant air quality effect</p> <p>No visual effect anticipated (outside study area and not individually assessed)</p>	<p>Neutral noise and vibration</p> <p>No significant air quality effect</p> <p>No visual effect anticipated (outside study area and not individually assessed)</p>	Low	No	n/a	n/a

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
Ockham Village Green	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Birchmere Scout Campsite	Adverse daytime construction noise effect and significant adverse night-time construction noise effect. Adverse construction vibration effect. No significant air quality effect No landscape effect anticipated (outside study area and not individually assessed)	Adverse night-time construction noise effect No significant air quality effect No landscape effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Heyswood Girl Guide Campsite	Adverse construction vibration effect No significant air quality effect Slight to moderate adverse visual effects (significant) (as part of Painshill Park assessment)	Neutral noise and vibration No significant air quality effect Slight to moderate adverse visual effects (significant) (as part of Painshill Park assessment)	Low	No	n/a	n/a
Hut Hill	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study	Low	No	n/a	n/a

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
		area and not individually assessed)				
Curries Clump	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Chatley Heath	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a
Cobham Services	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Redhill Bottom	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect	Low	No	n/a	n/a

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
		No visual effect anticipated (outside study area and not individually assessed)				
Sandpit Hill	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
The Manor School	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a
Bramley Hedge Farm (Silvermere Equestrian)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
St Marys Church	Neutral noise and vibration No significant air quality effect	Neutral noise and vibration	High	No	n/a	n/a

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
	No visual effect anticipated (outside study area and not individually assessed)	No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)				
Church Hall	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Sanway Road Play Area	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Glenangels Nursery	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
Downside Common	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Downside Nursery School	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a
St Matthews C of E First School	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a
St Michaels Chapel	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
		area and not individually assessed)				
Downside Village Hall	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
J Sainsbury PLC and Coffee Shop	Neutral noise and vibration No significant air quality effect Neutral visual effect	Neutral noise and vibration No significant air quality effect Neutral visual effect	Low	No	n/a	n/a
Ripley Cricket Club	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Hamilton Avenue Playground	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Neutral noise and vibration No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a

*Operation: land take and severance*

- 13.10.35 Permanent land take will take place in the construction phase. No land take is required during operation. All land take effects are therefore considered under the construction phase assessment.
- 13.10.36 In terms of severance, the Scheme includes extensively revised access arrangement to Wisley Garden, comprising a new overbridge for Wisley Lane over the A3 and new access road south of the A3 linking to the Ockham Park junction. This arrangement is likely to be less convenient for visitors approaching from the south west on the A3, who would be obliged to exit the A3 earlier and approach via Portsmouth Road, Ripley or continue past the gardens and switch back at junction 10 and again at Ockham junction. However, these arrangements will be much safer for visitors to RHS Wisley. Therefore, in operation severance is considered to be neutral in balance.
- 13.10.37 Changes in journey times and distances (severance) are outlined below in Tables 13.34 to 13.36. These are centred on journeys from the entrance to RHS Wisley, which will experience the greatest variation in journey times due to the revised access arrangements.

**Table 13.33: Wisley Lane journey distance changes**

From	To	Distance change (km)
Wisley Lane	Junction 10	2.5
Junction 10	Wisley Lane	0.1
Wisley Lane	A3 South (via A3)	2.5
	A3 South (via Ripley)	-3.7
A3 South	Wisley Lane (via A3)	5.3
	Wisley Lane (via Ripley)	0.0

**Table 13.34: Journey time change summary: 2022 Wisley Lane (minutes)**

From	To	2022 AM peak hour			2022 PM peak hour		
		NS	WS	Change	NS	WS	Change
Wisley Lane	A3 north of M25 junction 10	2.99	4.65	1.66	2.08	4.43	2.35
	M25 CW	3.39	4.24	0.85	2.45	3.99	1.55
	M25 ACW	4.02	5.98	1.97	3.06	5.47	2.41
A3 north of M25 junction 10	Wisley Lane	4.03	3.69	-0.34	4.22	3.85	-0.37
M25 CW		8.30	4.50	-3.80	6.95	4.45	-2.50
M25 ACW		6.91	5.24	-1.67	6.20	5.06	-1.14
Wisley Lane	A3 South (via A3)	12.24	12.55	0.30	10.70	12.12	1.42
	A3 South (via Ripley)	16.79	10.96	-5.83	15.00	10.72	-4.28
A3 South	Wisley Lane (via A3)	5.37	11.65	6.28	5.42	11.47	6.04

From	To	2022 AM peak hour			2022 PM peak hour		
		NS	WS	Change	NS	WS	Change
	Wisley Lane (via Ripley)	9.27	11.48	2.21	8.69	9.96	1.28

**Table 13.35: Journey time change summary: 2037 Wisley Lane (minutes)**

From	To	2022 AM peak hour			2022 PM peak hour		
		NS	WS	Change	NS	WS	Change
Wisley Lane	A3 north of M25 junction 10	4.09	5.05	0.96	2.74	4.61	1.87
	M25 CW	4.82	4.69	-0.13	3.37	4.15	0.78
	M25 ACW	5.02	8.17	3.15	4.01	5.82	1.81
A3 north of M25 junction 10	Wisley Lane	5.66	4.43	-1.23	4.97	4.54	-0.43
M25 CW		10.62	5.83	-4.79	9.10	5.53	-3.57
M25 ACW		9.64	6.57	-3.07	9.42	5.91	-3.51
Wisley Lane	A3 South (via A3)	14.93	16.08	1.15	14.35	13.44	-0.91
	A3 South (via Ripley)	21.16	12.20	-8.96	19.92	11.82	-8.10
A3 South	Wisley Lane (via A3)	5.97	14.75	8.78	5.62	12.73	7.11
	Wisley Lane (via Ripley)	10.51	12.41	1.90	9.63	11.41	1.78

*Operation: Amenity*

**Table 13.36: Likely significant effects on amenity of community assets during operation**

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
Ockham Common	No significant noise effects No significant air quality effect Slight adverse visual effects (not significant)	No significant noise effects No significant air quality effect Slight adverse visual effects (not significant)	High	No	n/a	n/a
Wisley Common	No significant noise effects No significant air quality effect Slight adverse visual effects (not significant)	No significant noise effects No significant air quality effect Slight adverse visual effects (not significant)	High	No	n/a	n/a
Open space	No significant noise effects No significant air quality effect No significant visual effects (TBC whether this overlaps with Ockham/ Wisley Common results)	No significant noise effects No significant air quality effect No significant visual effects (TBC whether this overlaps with Ockham/ Wisley Common results)	High	No	n/a	n/a
Painshill Park	No significant noise effects No significant air quality effect Slight to moderate adverse visual effects (significant)	No significant noise effects No significant air quality effect Slight to moderate adverse visual effects (significant)	High	No	n/a	n/a
RHS Gardens Wisley	No significant noise effects No significant air quality effect Neutral visual effects (not significant)	No significant noise effects No significant air quality effect Neutral visual effects (not significant)	High	No	n/a	n/a
RHS Wisley Research Facility	No significant noise effects No significant air quality effect	No significant noise effects No significant air quality effect	High	No	n/a	n/a

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
	No visual effect anticipated (outside study area and not individually assessed)	No visual effect anticipated (outside study area and not individually assessed)				
Feltonfleet School	No significant noise effects No significant air quality effect Slight adverse visual effects (not significant)	No significant noise effects No significant air quality effect Slight adverse visual effects (not significant)	High	No	n/a	n/a
Walton Firs Adventure Camp	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Wisley Trails	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
St George's Nursing Home	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a
Ripley Village Green	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Ockham Village Green	No significant noise effects No significant air quality effect	No significant noise effects No significant air quality effect	Low	No	n/a	n/a

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
	No visual effect anticipated (outside study area and not individually assessed)	No visual effect anticipated (outside study area and not individually assessed)				
Birchmere Scout Campsite	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Heyswood Girl Guide Campsite	No significant noise effects No significant air quality effect Slight to moderate adverse visual effects (significant) (as part of Painshill Park assessment)	No significant noise effects No significant air quality effect Slight to moderate adverse visual effects (significant) (as part of Painshill Park assessment)	Low	No	n/a	n/a
Cockcrow Hill (Part of Wisley Common)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a
Hut Hill	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Curries Clump	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Chatley Heath	No significant noise effects	No significant noise effects	High	No	n/a	n/a

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
	No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)				
Cobham Services	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Redhill Bottom	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Battleston Hill	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a
Sandpit Hill	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
The Manor School	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
Bramley Hedge Farm	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
St Marys Church	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a
Church Hall	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Sanway Road Play Area	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Glen Angels Nursery	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a
Downside Common	No significant noise effects No significant air quality effect	No significant noise effects No significant air quality effect	Low	No	n/a	n/a

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
	No visual effect anticipated (outside study area and not individually assessed)	No visual effect anticipated (outside study area and not individually assessed)				
Downside Nursery School	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a
St Matthews C of E First School	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a
St Michaels Chapel	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	High	No	n/a	n/a
Downside Village Hall	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a

Receptor	Amenity effects pre-mitigation	Amenity effects post-mitigation	Sensitivity	Amenity effect (yes or no)	Magnitude	Post mitigation Significance
J Sainsbury plc and Coffee Shop	No significant noise effects No significant air quality effect Neutral visual effect anticipated	No significant noise effects No significant air quality effect Neutral visual effect anticipated	Low	No	n/a	n/a
Ripley Cricket Club	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a
Hamilton Avenue Playground	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	No significant noise effects No significant air quality effect No visual effect anticipated (outside study area and not individually assessed)	Low	No	n/a	n/a

### *Local businesses and local economy*

13.10.38 The magnitude of these impacts and significance of effects, in the context of the local economic baseline, have been assessed for the economic receptors in ~~Table 13.37~~~~Table 13.37~~~~Table 13.37~~~~Table 13.37~~ during the construction phase and in Table 13.38 during the operational phase.

#### *Construction*

##### *Land take and severance - temporary*

- 13.10.39 The construction of the Scheme requires temporary possession of land from eight receptors.
- 13.10.40 The impact magnitude on these receptors takes into account the proportion of the temporary possession of the total land area of these business receptors, and a high-level judgement on the businesses' dependence and requirements of this land use.
- 13.10.41 The land take from all of the receptors except Nutberry Farm Car Boot Sale and the former San Domenico restaurant site was estimated to be low proportions of total site area of each property affected. As such, the magnitude on all the receptors except Nutberry Farm Car Boot Sale and the former San Domenico restaurant site is assessed to be minor.
- 13.10.42 The sensitivity of these business receptors to land take has considered their ability to absorb or adjust to impacts, and the nature of the business receptor as listed in Table 13.4.
- 13.10.43 The sensitivity of the eight receptors here were all judged medium, with the exception of the San Domenico site as this site does not have a current occupier.
- 13.10.44 As a result, one significant effect has been assessed from the temporary land possession – Nutberry Farm Car Boot Sale, judged highly sensitive due to the complete loss of the site during the construction period, the extent that the business significantly depends on the pleasant customer environment provided by its current site and access from the A3. This receptor therefore has been judged to experience an impact from construction which may impact their profitability or viability. This may also result in a loss of employment for the local area.

##### *Land take and severance - permanent*

- 13.10.45 The construction of the Scheme requires permanent acquisition of land from seven receptors.
- 13.10.46 The impact magnitude of these receptors takes into account the proportion of the acquisition of the total land area of these business receptors, and a high-level judgement on the businesses' dependence and requirements of this land use.
- 13.10.47 The land take from all of the receptors except the San Domenico site was estimated to be low shares of total site area. As such, the impact magnitude on, the San Domenico site has been assigned moderate. The impact magnitude on the remaining seven receptors has been assigned low.

- 13.10.48 The sensitivity of these business receptors to land take has considered their ability to absorb or adjust to impacts, and the nature of the business receptor as listed in Table 13.4.
- 13.10.49 The sensitivity of the seven receptors here were all judged as medium, with the exception of the San Domenico site as this does not have a current occupier.
- 13.10.50 As a result, no significant effects have been assessed from the permanent land acquisition.
- 13.10.51 A summary of the land acquisition impacts throughout the construction phase can be found in ~~Table 13.37~~~~Table 13.37~~~~Table 13.37~~~~Table 13.37~~ and Table 13.38 respectively.

**Table 13.37: Effects on local businesses and the local economy during construction – temporary land take**

Receptor	Effect Description	Sensitivity	Effect Grading/ Magnitude	Significance
Local economy	Creation of net additional FTEs from the construction works. Estimated to be in the order of 100 FTEs.	Low	Moderate	Slight beneficial; insignificant
Nutberry fruit farm car boot sale	Temporary possession of 61,660 m <sup>2</sup> of total site area of 223,770 m <sup>2</sup> .	Medium	Major	Moderate adverse; significant
Former San Domenico restaurant site	Temporary possession of land estimated at 19,300 m <sup>2</sup> of total of 23,920 m <sup>2</sup> . The site is not currently occupied	Low	Major	Slight adverse; insignificant
Feltonfleet School	Temporary possession of land estimated at 1,440 m <sup>2</sup> of total area of near 70,000 m <sup>2</sup> . The temporary possession is primarily to allow the construction of the link between Old Byfleet Rd and Seven Hills Rd (South).	Medium	Minor	Slight adverse; insignificant
Cobham Hilton	Temporary possession of land estimated at 5,080 m <sup>2</sup> , on total area of over 100,190 m <sup>2</sup> .	Medium	Minor	Slight adverse; insignificant
Surrey Wildlife Trust, Pond Farm	Temporary possession of land estimated at 13,860 m <sup>2</sup> of large site at Pond Farm over 194,620 m <sup>2</sup> .	Medium	Minor	Slight adverse; insignificant
Painshill Park	Temporary possession of land estimated at 20,050 m <sup>2</sup> , of total area of 865,810 m <sup>2</sup> .	Medium	Minor	Slight adverse; insignificant
RHS Gardens Wisley	Temporary possession of land estimated at 250 m <sup>2</sup> for land around access and within car park and of small area for connection to hydrant. Total area of over 797,000 m <sup>2</sup> .	Medium	Minor	Slight adverse; insignificant

Receptor	Effect Description	Sensitivity	Effect Grading/ Magnitude	Significance
Wisley Trails	Temporary possession of land estimated at 5,010 m <sup>2</sup> , total area 74,023 m <sup>2</sup> .	Medium	Minor	Slight adverse; insignificant

**Table 13.38: Effects on local businesses and the local economy during construction- permanent land take**

Receptor	Effect Description	Sensitivity	Effect Grading/ Magnitude	Significance
Former San Domenico restaurant site	Permanent acquisition of land estimated at 1,410 m <sup>2</sup> Permanent acquisition of land estimated at 19,300 m <sup>2</sup> , a large share of total area but no current occupier.	Low	Moderate	Slight adverse; insignificant
Nutberry fruit farm car boot sale	Permanent acquisition of land estimated at 1,410 m <sup>2</sup>	Medium	Minor	Slight adverse; insignificant
Feltonfleet School	Permanent acquisition of land of 3,680 m <sup>2</sup> of total area of near 70,000 m <sup>2</sup> . Primarily to allow for future construction of a foot/cycle way.	Medium	Minor	Slight adverse; insignificant
Cobham Hilton	Permanent acquisition of land estimated at 6,400 m <sup>2</sup> , of total area of 100,190 m <sup>2</sup> .	Medium	Minor	Slight adverse; insignificant
Surrey Wildlife Trust, Pond Farm	Permanent acquisition of land at Pond Farm estimated at 2,490 m <sup>2</sup> . To construct a foot bridge ramp and balancing pond.	Medium	Minor	Slight adverse; insignificant
Painshill Park	Permanent acquisition of land from outside of the historic landscaped park, estimated at 33,910 m <sup>2</sup> , of total area of 865,810 m <sup>2</sup> , to build allow construction of local access road.	Medium	Minor	Slight adverse; insignificant
RHS Gardens Wisley	Permanent acquisition of land outside of the perimeter of the gardens, estimated at 1,310 m <sup>2</sup> .	Medium	Minor	Slight adverse; insignificant
Wisley Trails	Permanent acquisition of land 4,080 m <sup>2</sup> .	Medium	Minor	Slight adverse; insignificant

### Disruption

13.10.52 With the appropriate mitigations from the traffic management plan, it is considered that there will be no significant disruption impacts to the local businesses.

### *Employment*

- 13.10.53 The construction of the Scheme has been identified to create local employment.
- 13.10.54 The receptor, the local economy, is judged to be low in sensitivity.
- 13.10.55 The Scheme cost has a low-end estimate of £100 million. Using this, 95 total net additional jobs from the Scheme has been estimated.
- 13.10.56 The impact has a been judged at a moderate magnitude, resulting in an assessment of a slight beneficial socio-economic effect, which is insignificant.

### *Operation: land take and severance*

- 13.10.57 Permanent land take will take place in the construction phase, and has been assessed above.

### *Agricultural land*

#### *Farms and land-based rural enterprises*

- 13.10.58 Agricultural land will be possessed temporarily for site compounds at Ockham junction (Nutberry Farm), land bordering the A3 and M25 in the south west quadrant of junction 10 and a field adjacent to Buxton Wood. Nutberry Farm, being a small holding with no alternative land, is a receptor of high sensitivity. The other land parcels are of low sensitivity.
- 13.10.59 Permanent loss of agricultural land to the engineering footprint of the Scheme is confined to grazed heathland in the south west quadrant of junction 10, a small field beside the M25 north west of Pond Farm and a small area of grassland beside the eastern edge of Ockham Park junction.
- 13.10.60 The Scheme will involve the loss of registered Common Land and other open space and so replacement land will be created in the vicinity of the Scheme. There will be compensation planting (including translocation of woodland soils) within the replacement land as parts of the package of biodiversity and so it will no longer be classed as agricultural. Agricultural land to be taken for replacement land is at Park Barn Farm and an equestrian field at Hatchford End. These two holdings are of medium sensitivity.
- 13.10.61 SPA compensation areas on agricultural land are in the grazed parts of Wisley and Ockham Commons and grass fields north of Wisley and Old Lane, Hatchford End. Their sensitivity is low. This land will continue to be grazed.
- 13.10.62 The residual significance of effects of impacts on each affected farm and land-based enterprise is assessed in [Table 13.39](#)~~Table 13.39~~~~Table 13.39~~~~Table 13.39~~. At Park Barn Farm the effect is large adverse (significant) and on the remainder it is neutral or slight adverse. On the SPA compensation areas of Wisley and Ockham Commons the effect is slight beneficial because of improvements to the heathland grazing.

**Table 13.39: Likely significant effects and residual effects on farms and land-based enterprises**

Land acquisition	Holding (see Figure 13.4 for numbered ref)	Sensitivity of receptor	Potential Impact	Mitigation Measures	Post-Mitigation Residual Significance
Permanent acquisition	15) SWT land on Wisley Common bordering A3 at Cockcrow Hill	Low	Negligible. Loss of 0.48 ha of heathland grazing.	None	Neutral
	14) SWT land bordering M25 north of Pond Farm	Low	Negligible. Loss of 0.24 ha of rough grassland.	None	Neutral
	11) Land bordering east side of Ockham Park junction	Medium	Negligible. Loss of 0.18 ha of grassland.	None	Neutral
Temporary possession	8) Nutberry Farm smallholding west of Ockham junction	High	None after construction phase	Land to be returned to owner in a condition equivalent to its original, within an agreed aftercare period.	Neutral
	9)RHS land next to Buxton Wood (tenanted by SWT)	Low	None after construction phase	Land to be returned to owner in a condition equivalent to its original, with an agreed aftercare period.	Neutral
	10) SWT land on Wisley Common bordering M25	Low	None after construction phase	Land to be returned to owner in a condition equivalent to its original, with an agreed aftercare period.	Neutral
	14) SWT land bordering M25 north west of Pond Farm	Low	None after construction phase	Land to be returned to owner in a condition equivalent to its original, with an agreed aftercare period.	Neutral
Replacement land	1) Park Barn Farm	Medium	Major. Loss of 14.58 ha of grassland.	None	Large adverse (significant)

Land acquisition	Holding (see Figure 13.4 for numbered ref)	Sensitivity of receptor	Potential Impact	Mitigation Measures	Post-Mitigation Residual Significance
	4) Land at Hatchford End, part of Poynters Farm	Medium	Minor Loss of 0.5 ha of 17 ha used for equestrianism. Possible disruption to local field drainage system if ditches not maintained.	None Monitor drainage for an agreed number of years.	Slight adverse
SPA compensation area (agricultural parts only)	5) RHS land north of Wisley bordering M25 (tenanted by SWT)	Low	Negligible. Small reduction in grazing potential.	Introduce conservation grazing	Neutral
	6) SWT land at Ockham Common and Sandpit Hill	Low	Minor beneficial. Heathland habitat improvement should provide better grazing.	None	Slight beneficial
	7) SWT land on Wisley Common at Cockcrow Hill	Low	Minor beneficial Heathland habitat improvement should provide better grazing.	None	Slight beneficial
	12) Land at Old Lane, Hatchford End	Low	Negligible. Small reduction in grazing potential on 1.3 ha	Introduce conservation grazing	Neutral

### *Agricultural soils*

- 13.10.63 Of the 48.82 ha of land affected by the construction phase 10.19 ha (21%) is of BMV quality.
- 13.10.64 The 10.8 ha of temporarily acquired land contains 5.31 ha of BMV land that will be restored to a condition equivalent to its original at the end of the construction phase.
- 13.10.65 Land within the SPA compensation areas (22.05 ha) is not considered lost to agriculture as conservation grazing will take place there.
- 13.10.66 Permanent loss of agricultural land (permanently acquired for engineering and replacement land) will be 15.97 ha of which 3.58 ha (22%) is of BMV quality. No mitigation is possible for this loss of this land. This is a slight adverse effect and well below Natural England's 20 ha national significance threshold.

### **Development land**

#### *Construction*

- 13.10.67 ~~Table 13.40~~~~Table 13.40~~~~Table 13.40~~~~Table 13.40~~ presents the anticipated effects on Development Land during construction.
- 13.10.68 The developments at Wisley Airfield and RHS Wisley were judged to be of medium sensitivity, due to the nature of the proposals, distance to works resulting from the Scheme and in the case of Wisley Airfield allocation A35, the ability to amend the detailed design. Feltonfleet School was adjudged to have high sensitivity due to the proximity of proposals to the red line boundary of the Scheme, and the continuing use of the school during construction. The former San Domenico site was also adjudged to have high sensitivity due to proximity of the works to the Scheme and reliance on A3 access.
- 13.10.69 During the construction period, the temporary and permanent land take would be inconsistent with the intended use of the former Wisley Airfield development land as a mixed-use development site and the in-vessel composting facility, as large sections of the western side of the site will be utilised as a construction compound, the diversion to Wisley Lane and for flooding and drainage mitigation.
- 13.10.70 Medium sensitivity has been allocated to the Wisley Airfield site due to the realigned Wisley Lane having been designed in consultation with the landowners of the mixed-use development on the former airfield site to minimise conflict. It is also considered that the in-vessel composting facility is unlikely come to fruition, due to it being inconsistent with the proposed mixed-use Site Allocation A35.
- 13.10.71 The RHS Wisley planning application site area will be affected by the works to the access, car park and relocated bus stop, but it is considered the works within their land will benefit the intended use. The works to junction 10 would not affect the viability of the proposals to the front of house visitor facilities, laboratory and related facilities under application 16/P/01080. The change in access, partly during the construction period, using the realigned Wisley Lane will be a longer but safer route for visitors. Though there may be some temporary inconvenience during construction, the Scheme is consistent with the developments permitted. It is therefore considered the effects will be neutral.

- 13.10.72 During construction, the effects on the Feltonfleet School consent are considered to be adverse due to the inconvenience to the school. Any land take associated with amendments to Painshill junction would be of peripheral land, constituting playing fields and other green space. However, works would occur in close proximity to the existing school buildings and proposed new facilities, running along the south-eastern side of the site, resulting in potential nuisances. There would also be an adverse effect to the access arrangements during construction as the existing direct access onto the A245 would be removed and rerouted to a gated two-way entrance off Seven Hills Road South.
- 13.10.73 During construction, the proposed development on the former San Domenico site would be substantially hindered by the use of the site as a satellite compound and through the building of the Local Access Road and there would be significant adverse effects. Direct access to the San Domenico site from the A3 will be closed as a result of the construction of the Scheme. Alternative access will be provided via Seven Hills Road South and this would be permanent. Sensitivity of the site to the Scheme is therefore considered to be high, and the proposed use would be incompatible with the Scheme.
- 13.10.74 However, this application at the former San Domenico site was refused by Elmbridge Borough Council, and the site is not allocated in any local planning documents. As such, the proposal is considered to be unlikely to come to fruition, despite the application still being eligible for appeal.
- 13.10.75 The effect on all other development sites listed in the baseline would be neutral during construction.

**Table 13.40: Construction effects of the Scheme on Development Land**

Development Site	Total Area m <sup>2</sup>	Temporary land take m <sup>2</sup>	Permanent land take m <sup>2</sup>	Sensitivity	Significance
The former Wisley Airfield Site Allocation A35 in the Submission Local Plan: strategy and sites 2017	<del>1,145,479</del> <u>927,881</u>	<del>82,800</del> <u>9,768</u>	<del>33,797</del> <u>30,689</u>	Medium	Adverse
The former Wisley Airfield Planning application refs. SCC 2012/0034 Guildford. 12/P/00533	<del>165,2761</del> <u>67,779</u>	<del>54,680</del> <u>59,632</u>	<del>33,797</del> <u>39,610</u>	Medium	Adverse
RHS Gardens, Wisley Lane, Wisley, Woking, GU23 6QS Planning application ref 16/P/01080	<del>731,5191</del> <u>29,598</u>	<del>9,674</del> <u>6,581</u>	<del>8,148</del> <u>2,962</u>	Medium	Neutral
Former San Domenico Restaurant Planning application reference 2017/0524	<del>23,919</del> <u>23,906</u>	<del>19,309</del> <u>19,294</u>	<del>4,558</del> <u>4,612</u>	High	Significant adverse

Development Site	Total Area m <sup>2</sup>	Temporary land take m <sup>2</sup>	Permanent land take m <sup>2</sup>	Sensitivity	Significance
Feltonfleet School Byfleet Road Cobham Surrey KT11 1DR Planning ref. 2017/2106, granted 24th November 2017	<del>69,098</del> <u>53,852</u>	<del>1,546</del> <u>1,548</u>	<del>1,201</del> <u>799</u>	High	Adverse

### Operation

- 13.10.76 ~~Table 13.41~~~~Table 13.41~~~~Table 13.41~~~~Table 13.41~~ shows the anticipated operational effects on Development Land.
- 13.10.77 For the site allocation A35 on Wisley Airfield, it is considered the effects of the Scheme would be significant beneficial as the Scheme would provide the new exit from Ockham Park junction and new road alignment included in the masterplan. The operational Scheme would also add the capacity required for additional traffic which would arise from the site allocation if consented and implemented. Land taken temporarily to form the construction compound would be recovered and remain available for development, although there may be some loss of developable land through the permanent land take, to form the realigned Wisley Lane.
- 13.10.78 Effects would be significant adverse on the in-vessel composting facility planning consent and designated waste site as the new Wisley Lane would pass through the site on an alignment that differs to that approved in the composting scheme. This is only considered as adverse as the facility is unlikely to come to fruition due to the proposal's inconsistency with mixed-use Site Allocation A35.
- 13.10.79 Once operational, the effects on the RHS Wisley consent would be, on balance, neutral as the new access would be safer but less convenient for visitors to the site. The works would be unlikely to affect the viability of proposed front of house visitor facilities, laboratory, parking alterations and educational facilities under extant planning permissions.
- 13.10.80 Feltonfleet School, as a result of the Scheme, would lose some peripheral playing field and green land through permanent land take at Painshill junction, and through the realignment of Old Byfleet Road, however this should not impact upon the functions of the school, nor on the permitted proposals therein.
- 13.10.81 The access to Feltonfleet School would be amended to close direct access onto the A245, rerouting Old Byfleet Road to join Seven Hills Road. The junction of the A245 and Seven Hills Road would also be amended to restrict to left-only lanes entering the southern section of Seven Hills Road, and exiting the northern section of Seven Hills Road, thus filtering traffic through Painshill junction instead of direct access to/from the west along the A245. These changes will result in a safer but more inconvenient route for traffic accessing Feltonfleet School, and therefore the subsequent significance of operational effects is judged to be Neutral.
- 13.10.82 The significant adverse effect for the former San Domenico site would remain in operation due to the new access from Seven Hills Road and permanent loss of direct access from the A3. This is considered to be incompatible with the

proposed use of a petrol filling station, which would require access from the A3 to remain viable.

13.10.83 However, this application at the former San Domenico site was refused by Elmbridge Borough Council, and the site is not allocated in any local planning documents. As such, the proposal is considered to be unlikely to come to fruition, despite the application still being eligible for appeal.

**Table 13.41: Operational effects of the Scheme on Development Land**

Development Site	Total Area m <sup>2</sup>	Permanent land take m <sup>2</sup>	Sensitivity	Significance
The former Wisley Airfield Site Allocation A35 in the Submission Local Plan: 2017	<del>927,8814,145,479</del>	<del>30,68933,797</del>	Medium	Beneficial
The former Wisley Airfield Planning application refs. SCC 2012/0034 Guildford. 12/P/00533	<del>167,779465,276</del>	<del>39,61033,797</del>	Medium	Adverse
RHS Gardens, Wisley Lane, Wisley, Woking, GU23 6QS Planning application ref 16/P/01080	<del>129,598731,519</del>	<del>2,9628,148</del>	Medium	Neutral
Former San Domenico Restaurant Planning application reference 2017/0524	<del>23,90623,919</del>	<del>4,6124,558</del>	High	Significant adverse
Feltonfleet School Byfleet Road Cobham Surrey KT11 1DR Planning ref. 2017/2106, granted 24th November 2017	<del>53,85269,098</del>	<del>7994,204</del>	High	Neutral

13.10.84 The effects on development land for all other sites in the baseline would be beneficial as the Scheme would increase capacity for development and additional traffic arising from these other developments.

### **Non-motorised users (NMU)**

#### *Construction*

13.10.85 The assessment of the effects on NMU is presented in Table 13.42 below.

**Table 13.42: Amenity and Severance effects on NMU during construction**

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Effected Constructi on Phases	Sensitivity	Magnitude	Post-mitigation significance of effects
A3 shared pedestrian and cycle route	Route abandoned with new route opening in Phases. Likely temporary severance at the junction 10 crossings during Phase 1. Mitigation provided by the new overbridges are provided at Redhill Road and Clearmount in Phase 2 and Sandpit Hill in Phase 4. Alternative temporary cycle diversion from Painshill to Ockham via Hatchford.	Yes	Yes	Enabling Works; Phase June 2021- February 2023	High	Major adverse	Large adverse
Pedestrian Crossing	Likely temporary severance or disruption at the crossing. Mitigation provided by NMU improvements being completed.		Yes	Enabling Works Phase	High	Moderate adverse	Moderate adverse
Old Byfleet Road pedestrian route	Likely temporary severance or disruption. The public NMU access to the footway along Old Byfleet Road will be stopped up with access only allowed for Feltonfleet School. The access to the A3 north off slip footway will be stopped up. Mitigation will be provided by the footway being replaced by the new A245 shared pedestrian and cycle route.	Yes	Yes	Enabling Works; Phase June 2021- August 2022	High	Moderate adverse	Moderate adverse
Footpath FP66		No	No	No	High	No Change	N/A
Footpath FP65		No	No	No	High	No Change	N/A
Ockham Common	Adverse effects to be felt greatest close to junction 10.		Yes	Phase June 2021- November 2022	High	Major adverse	Large adverse

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Effected Construction Phases	Sensitivity	Magnitude	Post-mitigation significance of effects
Permissive Equestrian Route							
Bridleway BW69		No	No	No	High	No Change	N/A
Footpath FP17	The existing Cockcrow Footbridge to be closed once the new overbridge is opened. The existing footpath will be diverted close to the A3 to the new overbridge.	Yes	Yes	Phase June 2021 – May 2022	High	Major adverse	Large adverse
Footpath FP10	The existing footpath will be stopped up for a short distance close to the A3 and connects to the new A3 bridleway and new Cockcrow overbridge across the A3. The footpath will be diverted to connect to the new Clearmount overbridge over the M25.	Yes	Yes	Phase June-2021 – February 2022	High	Major adverse	Large adverse
Cockcrow Hill Permissive Equestrian Route	Route to be abandoned. Mitigation provided by the alternative Permissive Equestrian Route available in the vicinity of Cockcrow Hill.	Yes	Yes	Phase June 2021- November 2022	High	Major adverse	Large adverse
Bridleway BW16		No	Yes	Enabling Works; Phase June-2021 – August 2021	High	Minor adverse	Slight adverse
Byway BY525	Route to be tarmacked. Temporary disruption.	No	Yes	Enabling Works; Phase June	High	Minor adverse	Slight adverse

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Effected Construction Phases	Sensitivity	Magnitude	Post-mitigation significance of effects
				2021 – August 2021			
Bridleway BW12	Route to be stopped up. Severance likely until mitigation provided by the new A3 bridleway route and Redhill Road bridleway overbridge is opened.	Yes	Yes	Phase June 2021 – May 2023	High	Major adverse	Large adverse
Footpath FP12	Route to be stopped up at connection with BW12. Severance likely until mitigation provided by new FP12 extension and the new Redhill Road bridleway overbridge are opened.	Yes	Yes	Phase June 2021 – May 2023	High	Moderate adverse	Moderate adverse
Footpath FP11	Temporary disruption at Claremount and Redhill Road until mitigation provided by connecting to new Overbridge and footpaths.	Yes	Yes	Phase June 2021 – May 2022	High	Minor adverse	Slight adverse
Footpath FP14	Route to be stopped up at connection with A3 and diverted towards new Wisley Lane bridleway. Potential disruption from Elm Lane enabling works.	Yes	Yes	Enabling Works; June 2021 – May 2022	High	Moderate adverse	Moderate adverse
Footpath FP15		No	No	N/A	High	No Change	N/A
Footpath FP19		No	No	N/A	High	No Change	N/A
Footpath FP71		No	No	N/A	High	No Change	N/A
Bridleway BW70		No	No		High	No Change	N/A
Footpath FP74		No	No		High	No Change	N/A

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Effectuated Construction Phases	Sensitivity	Magnitude	Post-mitigation significance of effects
Footpath FP75		No	No		High	No Change	N/A
Footpath FP76		No	No		High	No Change	N/A
Footpath FP77		No	No		High	No Change	N/A
Bridleway BW74		No	No		High	No Change	N/A
Footpath FP68		No	No		High	No Change	N/A
Wisley Lane Pedestrian Footbridge	Existing bridge to be replaced by new Wisley Lane bridleway overbridge. Mitigation provided by a temporary pedestrian footbridge located in the vicinity until the new overbridge is opened.	Yes	Yes	Enabling Works; Phase June 2021 – May 2021	High	Minor adverse	Slight adverse
Bridleway BW544	Existing Route to be temporarily diverted close to the new Wisley Lane Bridleway. Route goes through Wisley Airfield construction and soil compound. Temporary disruption.	No	Yes	Enabling Works; Phase June 2021 – May 2021	High	Major adverse	Large adverse
Pedestrian Route Ockham Park junction	Adjacent to main construction compound at Nutberry Farm.	No	Yes	Enabling Works; Phase June 2021 – August 2022	High	Major adverse	Large adverse
Footpath FP13	Route to be stopped up at connection with A3 and diverted towards new Wisley Lane bridleway.	Yes	Yes	Enabling Works; June 2021 –	High	Moderate adverse	Moderate adverse

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Effected Construction Phases	Sensitivity	Magnitude	Post-mitigation significance of effects
				February 2022			
Footpath FP13a	Route to be stopped up at connection with A3 and diverted towards new Wisley Lane bridleway.	Yes	Yes	Phase June 2021 – February 2022	High	Minor adverse	Slight adverse
Bridleway BW8	Temporary disruption. Existing Clearmount bridge over the M25 is to be replaced between December 2021 and August 2022 when the existing bridge will then be demolished.	Yes	Yes	Enabling Works; Phase June 2021 – August 2022	High	Moderate adverse	Moderate adverse
Footpath FP9	Route to be stopped up at connection with A3 and connect to the new A3 bridleway route.	Yes	Yes	Enabling Works; Phase June 2021 – February 2022	High	Moderate adverse	Moderate adverse
Footpath FP7	Route to be stopped up at existing connection with Wisley Lane and diverted to connect to the new Wisley Lane bridleway route.	Yes	Yes	Phase June 2021 – November 2021	High	Moderate Adverse	Moderate adverse
Footpath FP6		No	No		High	No Change	N/A
Footpath FP5		No	No	N/A	High	No Change	N/A
Footpath FP69		No	No		High	No Change	N/A

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Effected Constructi on Phases	Sensitivity	Magnitude	Post-mitigation significance of effects
Bridleway BW33	Adjacent to the rear of the main construction compound at Nutberry Farm.	No	No	Enabling Works; Phase June 2021 – May 2023	High	Minor adverse	Slight adverse
Footpath FP3		No	No		High	No Change	N/A
Footpath FP566		No	No	N/A	High	No Change	N/A
Footpath FP129		No	No	N/A	High	No Change	N/A
Footpath FP4		No	No	N/A	High	No Change	N/A
Footpath FP531		No	No	N/A	High	No Change	N/A

### Operation

13.10.86 The assessment of the effects on NMUs is presented in Table 13.43 below.

**Table 13.43: Amenity and Severance effects on NMU during operation**

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Traffic Flow 2022	Sensitivity	Magnitude	Post-mitigation significance of effects
New Bridleway A3 route	A new bridleway will provide a replacement for the existing shared use pedestrian and cycle route	Yes – 1.4km Increase	Yes	Neutral A3; >30% Difference M25 Slips; neutral M25; >30% Difference Elm Lane;	High	Major beneficial	Large beneficial

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Traffic Flow 2022	Sensitivity	Magnitude	Post-mitigation significance of effects
	<p>between Seven Hills Road and Wisley Lane with the route continuing as part of the new Wisley Lane bridleway to Ockham Park junction. The new route is accessed via crossing Painshill junction at grade and continuing along the new A245 NMU route before entering Seven Hills Road. The new route is set back from the A3 starting on the west side of the A3 before crossing over the new Redhill Road overbridge bridleway across the A3 connecting to the new Redhill Road to Pointers Road bridleway. At junction 10 the route goes around the junction and crosses the M25 via the new Sandpit Hill overbridge connecting to the new Ockham Common bridleway and then FP17 a short spur continues to the east of Ockham Bites Café ending at Old Lane. The route continues west over the A3 via the replacement Cockcrow overbridge connecting to the upgraded FP10 bridleway before turning south through Wisley</p>			<p>Neutral A3; &gt;30% Difference and &lt;30% Difference Wisley Lane</p>			

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Traffic Flow 2022	Sensitivity	Magnitude	Post-mitigation significance of effects
	Common set back from the A3 connecting to FP9. A footpath link will link to the new Wisely Lane bridleway overbridge before the route turns to meet the route again with the diverted FP7.						
New Pedestrian Crossing Painshill junction	The crossing at Painshill junction will be upgraded and provide new segregated controlled crossings on both slips which will include added provision for equestrian users. The crossing will connect to the new A245 shared pedestrian and cycle route.	No	Yes	Neutral A3 and South East Slip >30% Difference South West Slip	High	Major beneficial	Large beneficial
New A245 shared pedestrian and cycle route	A new shared pedestrian and cycle route will be created starting at Painshill junction and ending at the junction of Seven Hills Road providing access to the altered access for Old Byfleet Road and Feltonfleet School. The route replaces the NMU public access.	N/A	Yes	N/A	High	Major beneficial	Large beneficial
Old Byfleet Road pedestrian route	The public NMU access to the footway along Old Byfleet Road will be lost with access only allowed for Feltonfleet School. The access to the A3 north off slip footway will be	Yes – 600 m	Yes	N/A	High	Major adverse	Large adverse

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Traffic Flow 2022	Sensitivity	Magnitude	Post-mitigation significance of effects
	stopped up. The footway will be replaced by the new A245 shared pedestrian and cycle route.						
New Bridleway Redhill to Pointers Road	A new bridleway will be created starting at the connection with the new Redhill Road bridleway overbridge and new A3 bridleway. The bridleway will travel east through Painshill Park connecting to Pointers Road.	N/A	Yes	N/A	High	Major beneficial	Large beneficial
New Bridleway Redhill Road Overbridge	A new bridleway overbridge at Redhill Road will provide a new connection across the A3 as part of the new A3 Bridleway to replace the provision lost by the stopped up at grade BW12 at the junction 10 junction. This new overbridge will connect the new Redhill to Pointers Road Bridleway Footpath east of the A3 to the diverted FP12, new upgraded Permissive Equestrian Bridleway Route, existing FP11 plus provide a connection to Redhill Road west of the A3.	N/A	Yes	Neutral	High	Major beneficial	Large beneficial

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Traffic Flow 2022	Sensitivity	Magnitude	Post-mitigation significance of effects
Footpath FP66		No	No	Neutral	High	No Change	N/A
Footpath FP65		No	No	Neutral	High	No Change	N/A
New Bridleway Ockham Common	The existing permissive equestrian route will be upgraded to a bridleway through the northern edge of Ockham Common and Chalvey Heath. It starts at the new A3 bridleway close to the new Sandpit Hill bridge and runs parallel to the south of the M25 connecting to BW69 in the east with links to other sign posted equestrian routes along its length.	No	Yes	N/A	High	Major beneficial	Large beneficial
Bridleway BW69	Will connect to the new Ockham Common bridleway parallel to the south of the M25 and new footpath parallel to Old Lane providing additional new routes for users.	No	Yes	Neutral	High	Negligible	Neutral
Footpath FP17	The Cockrow Footbridge will be replaced by a new restricted byway crossing 50 m south west. The footpath will be diverted just before it reaches the A3 and will connect to this new	Yes – 150 m Increase	Yes	Neutral	High	Minor beneficial	Slight beneficial

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Traffic Flow 2022	Sensitivity	Magnitude	Post-mitigation significance of effects
	overbridge and the new A3 bridleway.						
Footpath FP10	The footpath will be upgraded to a bridleway allowing for equestrian use across Wisley Common. The existing footpath will be stopped just before it reaches the A3 and will connect to the new A3 bridleway and new overbridge across the A3. The bridleway will connect to the new Clearmount overbridge linking to BW8 and Footpath FP11 which will also be upgraded to a bridleway.	Yes	Yes	Neutral A3 northbound; <30% Difference M25 clockwise	High	Minor beneficial (Pedestrian Users)  Major beneficial (Equestrian Users)	Slight beneficial (Pedestrian Users)  Large beneficial (Equestrian Users)
Abandoned Cockcrow Hill Permissive Equestrian Route	The existing permissive equestrian route through Wisley Common following the M25 and past the Cockcrow Hill Bell Barrow schedule monument will be abandoned. The neighbouring alternative permissive equestrian route will remain open and FP10 will be upgraded to a bridleway.	Yes – 700 m Abandonment	Yes	N/A	High	Major adverse	Large adverse
Bridleway BW16	The connecting BY525 Elm Lane to be improved allowing	No	Yes	N/A	High	Negligible	Neutral

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Traffic Flow 2022	Sensitivity	Magnitude	Post-mitigation significance of effects
	vehicle passage from Old Lane.						
Byway BY525	Elm Lane to be improved with tarmac allowing vehicle passage from Old Lane.	No	Yes	>30% Difference Old Lane North; Neutral Old Lane South	High	Minor adverse (Pedestrian Users)  Major beneficial (Vehicle Users)	Slight adverse (Pedestrian Users)  Large beneficial (Vehicle Users)
Bridleway BW12	The existing route containing an at grade crossing with the junction 10 roundabout is to be abandoned in full, with the connection to FP12 to be stopped up. A new bridleway overbridge will be provided south of Redhill Road across the A3. This new overbridge will be a part of the new A3 bridleway and connect to the new Redhill to Pointers Road Bridleway east of the A3 and to the diverted FP12, new upgraded Permissive Equestrian Bridleway Route, existing FP11 plus provide a connection to Redhill Road.	Yes – 300 m Abandonment; Replacement Route 700 m Increase	Yes	<30% Difference; >30% Difference	High	Major beneficial	Large beneficial
Footpath FP12	Starts with connection to upgraded bridleway FP11. FP12 is to be diverted	Yes – 150 m Stopping up; 450 m Extension	Yes	N/A	High	Minor beneficial	Slight beneficial

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Traffic Flow 2022	Sensitivity	Magnitude	Post-mitigation significance of effects
	through Wisley common towards Redhill Road, where it adjoins the upgraded permissive equestrian route to bridleway. The connection with BW12 is to be stopped up with the connection across the A3 to be provided by the new routes and new bridleway overbridge west of Redhill Road.						
Footpath FP11	FP11 is to be upgraded to Bridleway and realigned to suit new Clearmount overbridge bridleway. Towards the A3 the bridleway follows the upgraded permissive equestrian route connecting with FP11 and the new bridleway overbridge west of Redhill Road. FP11 will remain as a footpath at the northern end with Redhill Road where the new bridleway route starts.	Yes – 200 m Extension Bridleway Route	Yes	Neutral A3 northbound; >30% Difference M25 anti clockwise	High	Minor beneficial (Pedestrian Users)  Major beneficial (Equestrian Users)	Slight beneficial (Pedestrian Users)  Large beneficial (Equestrian Users)
New Bridleway BW8 and FP7 to FP11	New bridleway route starting at the connection of BW8 and FP7 which travels east towards the existing permissive equestrian route it then extends this route at Foxwarren Park connecting	N/A	Yes	N/A	High	Major beneficial	Large beneficial

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Traffic Flow 2022	Sensitivity	Magnitude	Post-mitigation significance of effects
	to the upgraded to bridleway FP11.						
Footpath FP14	The end of FP14 at Bolder Mere which meets the existing A3 shared footpath and cycle route is to be stopped up with the footpath diverted south west following the A3 towards the new Elm Lane overbridge a new footpath will follow the old Elm Lane alignment ending at BW544.	Yes – 100 m Stopped Up; 680 m extension	Yes	>30% Difference	High	Minor beneficial	Slight beneficial
Footpath FP15		No	No	N/A	High	No Change	N/A
New Footpath BW18 to FP71	New footpath north of Old Lane between BW18 and FP71 providing a connection to FP71.	N/A	Yes	Neutral	High	Major beneficial	Large beneficial
Footpath FP19	Connects to the new footpath between BW18 and FP71.	No	Yes	Neutral	High	Negligible	Neutral
Footpath FP71	Connects to the new footpath between BW18 and FP71.	No	Yes	Neutral	High	Negligible	Neutral
Bridleway BW70		No	No	Neutral	High	No Change	N/A
Footpath FP73		No	No	Neutral	High	No Change	N/A
Footpath FP75		No	No	Neutral	High	No Change	N/A

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Traffic Flow 2022	Sensitivity	Magnitude	Post-mitigation significance of effects
Footpath FP76		No	No	Neutral	High	No Change	N/A
Footpath FP77		No	No	Neutral	High	No Change	N/A
Bridleway BW74		No	No	Neutral	High	No Change	N/A
Footpath FP68		No	No	Neutral	High	No Change	N/A
New Bridleway Elm Lane to Wisley Lane	New bridleway which links Elm Lane with the new Wisley Lane bridleway connecting to BW544 and the new Elm Lane footpath as part of the diverted FP14.	N/A	Yes	>30% Difference	High	Major beneficial	Large beneficial
Bridleway BW544	Connects to the new Elm Lane to Wisley Lane bridleway link and the new Elm Lane footpath as part of the diverted FP14.	No	Yes	N/A	High	Negligible	Neutral
New Bridleway Wisley Lane	Wisley Lane will be diverted and will include a new bridleway parallel to the eastern verge of the road. The bridleway surface will be 3 m wide. Wisley Lane continues over the A3 via a new overbridge the new bridleway route will be a continuation and replacement for the A3 NMU route. It connects to FP13,	Yes – 1.25 km Bridleway Extension	Yes	>30% Difference	High	Major beneficial	Large beneficial

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Traffic Flow 2022	Sensitivity	Magnitude	Post-mitigation significance of effects
	FP13a, Elm Lane diverted FP14 via stairs, new Wisley Lane to Elm Lane bridleway south east of the A3. Connects to the diverted FP7, new A3 bridleway and new linking footpath via stairs. The new bridleway overbridge will replace the existing stepped access Wisley Lane pedestrian footbridge.						
New Footpath Ockham Park junction	The eastern and southern sections of the existing junction will be upgraded to a footpath. The existing western and northern sections will remain and provide access to the relocated bus stop on the A3 south off slip and to Mill Lane respectively. The new footpath will connect directly to the new Wisley lane bridleway and Portsmouth Road shared pedestrian and cycle route. The crossing facilities at the junction will be improved for pedestrians and cyclists to cross under the A3.	N/A	Yes	>30% Difference Wisley Lane; Neutral A3, southern arm of junction and Slips	High	Major beneficial	Large beneficial
New Portsmouth Road shared	A new shared pedestrian and cycle route will connect Ockham Park junction with a	N/A	Yes	N/A	High	Major beneficial	Large beneficial

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Traffic Flow 2022	Sensitivity	Magnitude	Post-mitigation significance of effects
pedestrian and cycle route and A3 Cycle Link	cycle link from the A3 north bound carriageway.						
Footpaths FP13	Connects to the new Wisley Lane bridleway with the footpath from this point towards the A3 will be stopped up. FP13 and FP13a will be diverted a short distance to converge and join the new Wisley Lane bridleway.	Yes – 60 m Stopped Up	Yes	>30% Difference Wisley Lane; Neutral Ockham Lane	High	Negligible	Neutral
Footpath FP13a	Connects to the new Wisley Lane bridleway with the footpath from this point towards the A3 will be stopped up. FP13 and FP13a will be diverted a short distance to converge and join the new Wisley Lane bridleway.	Yes – 50 m Stopped Up; 20 m Increase	Yes	>30% Difference	High	Negligible	Neutral
Bridleway BW8	At the A3 it connects to the new Wisley lane Bridleway and A3 bridleway. A new Clearmount bridleway overbridge will be provided to the immediate west of the existing overbridge. It will connect to the upgraded FP10 and FP11 either side of the M25.	Yes – 80 m Decrease	Yes	>30% Difference and <30% Difference Wisley Lane; Neutral M25	High	Major beneficial	Large beneficial

NMU Facility	Qualitative Commentary	Change in journey length	Change in facilities	Traffic Flow 2022	Sensitivity	Magnitude	Post-mitigation significance of effects
Footpath FP9	FP9 to be stopped up at the A3 and to connect with the new A3 bridleway.	Yes – 30 m Stopped Up/ Decrease	Yes	N/A	High	Negligible	Neutral
Footpath FP7	FP7 to be stopped up at the Wisley Lane end and diverted to connect with the new Wisley Lane and A3 bridleways. North of the M25 it will connect to the upgraded permissive equestrian route bridleway between the connection with BW8 and the upgraded FP11 bridleway.	Yes – 140 m Stopped Up; 60 m Increase	Yes	>30% Difference and <30% Difference Wisley Lane	High	Negligible	Neutral
Footpath FP6		No	No	<30% Difference	High	No Change	N/A
Footpath FP5		No	No	N/A	High	No Change	N/A
Footpath FP69		No	No	Neutral	High	No Change	N/A
Bridleway BW33		No	No	Neutral	High	No Change	N/A
Footpath FP3		No	No	Neutral	High	No Change	N/A
Footpath FP566		No	No	N/A	High	No Change	N/A
Footpath FP129		No	No	N/A	High	No Change	N/A
Footpath FP4		No	No	N/A	High	No Change	N/A
Footpath FP531		No	No	N/A	High	No Change	N/A

## **Vehicle travellers**

### *Views from the road during construction*

- 13.10.87 Views from the road are likely to change during the construction period due to potential loss of screening as well as the presence of construction machinery and equipment. Overall visual amenity is likely to be temporarily adversely affected. For full assessment see Chapter 9 Landscape.
- 13.10.88 Moderate adverse effects are likely to be experienced by road users around junction 10 and on the A3 and M25 due to loss of amenity planting and changes to the landscape.
- 13.10.89 Slight adverse effects during construction are anticipated on side roads due to the presence of construction vehicles and access routes.

### *Views from the road during operation*

- 13.10.90 In Year 1 moderate adverse effects on road users around junction 10 and on the A3 and M25 would remain due to mitigation planting not yet becoming established and with new highways elements remaining visible. By Year 15 planting would reduce impacts to a slight adverse effect.
- 13.10.91 Side roads would continue to have slight adverse effects in Year 1. Once mitigation plantation has matured (by Year 15), the significance of effect would consequently be reduced to neutral.
- 13.10.92 For full assessment see Chapter 9 Landscape.

### *Driver Stress during construction*

- 13.10.93 Driver Stress is not calculated during the construction phase as the effects are temporary. However, it is likely that there would be significant disruption and increase in driver stress during the construction phase. The level of driver stress experienced by vehicle travellers could be reduced through clear signage, prior notification of works, and traffic management measures.

### *Driver Stress during operation*

- 13.10.94 Appendix 13.5 provides detailed breakdowns of the driver stress calculation by road link and shows the visual representation of the driver stress assessment in the Do Minimum (DM) scenario and Do Something (DS) scenario in the opening year (2022) and design year (2037). Changes in Annual Average Daily Traffic (AADT) (%) are also shown in Appendix 13.5.
- 13.10.95 In operation, new elements of the highway show as being anticipated to have a significant increase in traffic. This is due to the data comparing no AADT (Annual Average Daily Traffic) in the DM scenario (as the new elements would not exist and therefore there is no traffic on them), with the DS anticipated AADT.
- 13.10.96 Driver Stress takes into account AADT (flow) as well as speed. Therefore, whilst some roads may have increases in AADT, if there is a corresponding increase in speed, driver stress levels may stay the same or be reduced.
- 13.10.97 Table 13.44 below provides a qualitative summary of the data presented in Appendix 13.5.

**Table 13.44: Driver Stress and AADT during operation**

Route	Qualitative Commentary
M25	<p><b>Junction:</b> Westbound and eastbound shows a reduction from moderate driver stress to low levels of driver stress through the interchange (DM 2022 vs DS 2022). Significant improvements through interchange, with a reduction east and westbound from moderate and high levels of driver stress to low levels of driver stress (DM 2037 vs DS 2037).</p> <p>Overall, no significant increase or decrease in AADT anticipated in the opening year or design year.</p> <p><b>Westbound (west of junction)</b> shows a worsening in driver stress for part of the route from moderate driver stress to high driver stress (DM 2022 vs DS 2022). No significant change in driver stress between DM 2037 and DS 2037 scenarios along length of route.</p> <p>Small section after proposed slip road shows a significant increase in AADT in opening year and design year. Rest of route shows neutral AADT anticipated changes.</p> <p><b>Eastbound (west of junction)</b> shows little change between the DM 2022 and DS 2022 scenarios. By the design year the DS 2037 scenario shows an overall improvement on this stretch (over the DM 2037 scenario). High driver stress levels are reduced to moderate driver stress on approach to junction.</p> <p>Small section before proposed slip road shows a significant increase in AADT in opening year and design year. Rest of route shows neutral AADT anticipated changes.</p> <p><b>Westbound (east of junction)</b> maintains moderate levels of driver stress between DM and DS opening year scenarios, with a reduction to low driver stress on the approach to the junction. No significant change in driver stress between DM 2037 and DS 2037 scenarios along length of route.</p> <p>No significant increase or decrease in AADT anticipated in the opening year or design year.</p> <p><b>Eastbound (east of junction)</b> shows sections of improvement close to the junction (moderate reduced to low driver stress), further along levels of driver stress are maintained (moderate) between DM 2022 vs DS 2022. No significant change in driver stress between DM 2037 and DS 2037 scenarios along length of route.</p> <p>Small section after proposed slip road shows a significant increase in AADT in opening year and design year. Rest of route shows neutral AADT anticipated changes.</p>
A3	<p><b>Junction:</b> Southbound carriageway shows a reduction from moderate driver stress to low levels of driver stress through the interchange (DM 2022 vs DS 2022). Northbound show no change in driver stress between DM 2037 and DS 2037. Southbound through the junction there is an improvement from moderate to low driver stress (DM 2037 vs DS 2037).</p> <p>No significant increase or decrease in AADT anticipated in the opening year or design year.</p> <p><b>Southbound (north of junction)</b> shows a slight improvement in the DS opening year scenario when compared to the DM 2022 scenario. Most of the route maintains low driver stress, however, the approach to the junction shows an improvement from moderate stress to low stress. In the design year, this route is anticipated to experience a worsening of driver stress</p>

Route	Qualitative Commentary
	<p>(from low DM 2037 to moderate DS 2037) north of Cobham roundabout. South of Cobham roundabout shows varied levels of stress, with a section of improvement (from moderate in DM 2037 to low in DS 2037). Small section after Cobham roundabout shows a significant increase in AADT in opening year and design year. Rest of route shows neutral AADT anticipated changes.</p> <p><b>Northbound (north of junction)</b> in the opening year there is an overall improvement in the driver stress levels between the junction 10/ A3 interchange and Cobham roundabout (DM 2022 vs DS 2022) from moderate to low stress. North of Cobham roundabout, low levels of stress are maintained in both the DM and DS scenarios. The modelling indicates an improvement on DM 2037 in the DS 2037 scenario, with sections of high stress reducing to moderate, and sections of moderate stress reducing to low stress. Low stress in both scenarios past the A3/M25 Painshill junction. No significant increase or decrease in AADT anticipated in the opening year or design year.</p> <p><b>Southbound (south of junction)</b> driver stress is anticipated to reduce from moderate to low in the DS 2022 scenario when compared to the DM 2022 scenario. On the approach to the junction at Ripley, driver stress increases from moderate (DM 2022) to high (DS 2022). Small section at Old Lane junction shows a significant increase in AADT in opening year and design year. Rest of route shows neutral AADT anticipated changes.</p> <p><b>Northbound (south of junction)</b> and south of Ripley junction shows an increase of driver stress (from moderate to high) (DM vs DS 2022). North of Ripley junction there is an improvement in driver stress (from high in DM 2022 to moderate in the DS 2022) on the approach to the A3 /junction 10 interchange. Modelling suggests that the southbound route will see an overall slight improvement between the DM 2037 and DS 2037 scenarios, with sections of high stress reducing to moderate stress. No significant changes between DM 2037 and DS 2037 scenarios.</p>
Wisley Lane	<p>No change in driver stress between DM 2022 and DS 2022 or the DM 2037 and DS 2037 scenarios. In the opening year Wisley Lane sees a significant improvement (reduction) in AADT of &gt;-30% in comparison to DM scenario. This improvement is maintained in the Design Year DS scenario.</p>
Old Lane	<p>Neutral change in driver stress in opening year and design year between DM and DS scenarios. Neutral AADT in both Opening Year and Design Year Do Something scenarios.</p>
Other roads in surrounding area	<p>Forest Road sees a significant increase (adverse) in traffic flows (AADT) in the opening year (&gt;30% increase) when compared to the DM scenario. This impact is reduced by the design year (when compared to opening year) to 'neutral' AADT. There is a neutral driver stress effect in the opening year (DM vs DS 2022) and the design year (DM vs DS 2037). Driver stress is not assessed along this route.</p>

Route	Qualitative Commentary
	A245 'Stoke Road' from Cobham Clock Tower eastwards shows neutral AADT change in the Opening Year, however the effect by the Design Year is an increase (adverse effect) of over 30% AADT. Driver stress is not assessed along this route.
	Ockham Lane between Martyr's Green and Ockham shows a significant increase in driver stress between the DM 2022 and DS 2022 scenario (from moderate to high stress). By the design year driver stress in the DS scenario is anticipated to reduce back down to moderate levels, which shows no significant change from the DM 2037 scenario. There is no significant change in AADT between the scenarios.

13.10.98 Overall, the junction 10/A3 junction shows significant improvements in levels of driver stress through the interchange. However, there is likely to be moderate to high levels of driver stress along the slip roads as vehicle travellers merge onto the highways.

13.10.99 In general, driver stress remains mostly unchanged once operational, with some sections of the major nearby highways seeing a decrease in stress and others seeing increases. In the longer term, there is an overall trend for increased vehicle flows throughout the affected road network, this is generally due to natural traffic growth over time and is not considered significant.

### **Residual effects**

13.10.100 Residual effects are those environmental effects predicted to remain after the implementation of mitigation. Significant residual effects are those that have an irreversible effect and that would not have been completely mitigated by the Scheme and the proposed mitigation.

13.10.101 Table 13.45 identifies the significant residual effects of the Scheme on people and communities receptors.

**Table 13.45: Residual effects**

Subtopic	Sub-section	Significant Residual Effects
Private Dwellings	Land Take and Changes in access	There will be a moderate residual adverse effect during construction as a result of the demolition of the vacant ancillary unit at the former San Domenico restaurant site. This will be permanent but will not have residual operational effects, as the effect will be experienced within the construction phase.
	Amenity	No residual significant effects
Community Assets	Land Take and Severance	Temporary land take during construction is considered to be significant residual adverse at the high sensitivity receptors of Ockham Common and other open space. These effects are temporary in nature.
	Amenity	Significant residual adverse effects on amenity for users of Feltonfleet School.
Local Businesses and the local economy		There will be moderate residual adverse effects during construction as a result of land take from the Nutberry Farm Car Boot Sale. There will be no residual effects from the operational phase.

Subtopic	Sub-section	Significant Residual Effects
Agricultural land	Farms and land-based enterprises	<p>The significance of residual effect during the operational phase, once mitigation has been applied, is summarised in Table 13.36.</p> <p>The effect is large and significant only on Park Barn Farm. Elsewhere it is neutral or slight adverse, except on the Commons SPAs where it is slight beneficial.</p>
	Agricultural soils	<p>No mitigation is possible for the loss of BMV soils, except for land temporarily acquired that will be restored to agriculture.</p> <p>Permanent loss of BMV soils on replacement land and the engineering footprint of the Scheme will be 3.58 ha (22% of total 15.97 ha land-take). This is a minor impact and the effect is slight adverse and not significant. It is well below Natural England's 20 ha national significance threshold for loss of BMV land.</p>
Development land		<p>Though considered unlikely, were the application to be approved through appeal, there would be significant adverse effects upon the former San Domenico Restaurant site, due to temporary loss of land forming a construction compound, and due to permanent loss of access to the A3 forming instead a local access road/public bridleway.</p> <p>No significant adverse effects are anticipated during construction or operation for any other designated development land. Minor adverse effects are anticipated during construction at Wisley Airfield and Feltonfleet School. Alterations to access arrangements would be required at Feltonfleet School and RHS Wisley as a result of the Scheme, however these are not considered to hinder or be inconsistent with development at these sites.</p>
Non-motorised users (NMU)		<p>Closure or temporary diversion of routes during parts of the construction period will result in temporary significant adverse effects to be mitigated through provision of alternative routes and crossings.</p> <p>Overall effects will be beneficial once the Scheme is operational are forecast along the new A3 Bridleway route, with new additional overbridges across the A3 and M25, linking into the new Wisley Lane Bridleway and new pedestrian crossings at Painshill and Ockham junctions. Existing footbridges across the A3 and M25 are to be replaced with some being incorporated into the A3 Bridleway route. Bridleways are to be created within the commons either from new or existing permissive paths. This will result in significant beneficial residual effects to NMUs in operation.</p>
Vehicle travellers (VT)	Views from the road	<p>Views from the road during construction are temporary and may not be mitigated during the construction phase resulting in some loss of visual amenity and a potential source for distraction to drivers; residual effects are not considered to be significant.</p> <p>In Year 1 of operation, moderate residual adverse effects on road users around junction 10 (A3 and M25) would remain due to mitigation planting not yet becoming established and with new highways elements remaining</p>

Subtopic	Sub-section	Significant Residual Effects
		<p>visible. By Year 15, planting would reduce impacts to a slight adverse effect.</p> <p>Side roads would continue to have slight residual adverse effects in Year 1 of operation. Once mitigation plantation has matured (by Year 15), the significance of effect would consequently be reduced to neutral.</p>
	Driver Stress	<p>Proposed mitigation to reduce driver stress should sufficiently reduce the adverse effects during construction to make them acceptable. The residual effects during construction will be temporary and therefore, no lasting residual effects are anticipated.</p> <p>During operation there is a range of effects from increased driver stress to reduced driver stress depending on the 'leg' of each route. Through the interchange itself it is anticipated there will be residual beneficial effects. Other routes may have adverse residual effects. These are not considered to be significant residual effects.</p>

### 13.11 Cumulative effects

- 13.11.1 Committed developments in the area are detailed in Chapter 17, Assessment of Cumulative Effects and the Appendix 17.1 'Cumulative Effects Assessment' 'Other Developments' shortlist.
- 13.11.2 The cumulative effects are those that result from the additive impacts of both the Scheme's components and any present or future developments within the study area.
- 13.11.3 The assessment of cumulative effects is detailed in [Table 13.46](#)~~Table 13.46~~~~Table 13.46~~.

**Table 13.46: Cumulative effects**

Other Scheme	Cumulative impact on assets affected by Scheme	Additional significant construction effects	Additional significant operation effects
<p>M25 junction 10-16 Smart Motorway Programme</p> <p>Construction approx. 2020-2023</p>	<p>It is assumed that that there will be an overlap in construction.</p> <p><b><u>Private dwellings</u></b></p> <p>It is not considered that there would be significant adverse cumulative effects for <b>Private Dwellings (land take and changes in access and amenity)</b> during construction and operation as there would be no additional land take because of the SMP and the additional works are considered to be a sufficient distance to not affect amenity.</p> <p><b><u>Community assets</u></b></p> <p>It is not anticipated that there would be significant adverse cumulative effects for <b>Community assets (land take and severance)</b> during construction and operation, but the SMP works may also affect <b>amenity</b> during construction due to vegetation clearance and new gantries for users of the common land, open space and Birchmere Scout Camp resulting in slight adverse cumulative effects.</p> <p><b><u>Local businesses and the local economy</u></b></p> <p>It is not considered that there would be cumulative effects on local business during construction or operation of the Scheme and the SMP.</p> <p>Once operational, the schemes together would be beneficial for local business.</p> <p><b><u>Agricultural land</u></b></p> <p>It is not anticipated that there will be any cumulative effects for <b>Agricultural land</b> during construction or operation.</p> <p><b><u>Development land</u></b></p> <p>It is not anticipated that there will be cumulative effects for <b>Development land</b> during construction or operation as there is no additional land take.</p> <p><b><u>NMUs</u></b></p> <p>It is not anticipated that there would be cumulative effects for <b>NMUs (severance)</b> during construction and operation, but the SMP works may adversely affect amenity for users of NMU facilities crossing the M25 during construction due to increase in noise, possible dust emissions and visual <b>amenity</b> impact.</p> <p>Once operational it is not anticipated that there would be cumulative effects on <b>amenity</b> and there would be improved NMU facilities.</p>	<p>None anticipated</p>	<p>None anticipated</p>

Other Scheme	Cumulative impact on assets affected by Scheme	Additional significant construction effects	Additional significant operation effects
	<p><b>Vehicle travellers</b></p> <p>There would be adverse cumulative effects on <b>Views from the road</b> during construction and operation due to vegetation clearance in combination with new gantries from SMP.</p> <p>There will be moderate adverse cumulative effects on <b>Driver stress</b> during construction, which would be mitigated through the implementation of a Traffic Management Plan. The SMP along with the Scheme will reduce Driver Stress once operational resulting in beneficial cumulative effects.</p>		
<p>The Former Wisley Airfield Site allocation A35</p> <p>Construction approx. 2022-2033</p>	<p>It is assumed there would be a potential overlap in construction with the Scheme and there would be new receptors as a result of the development.</p> <p><b>Private dwellings</b></p> <p>It is anticipated that there would be <b>significant adverse cumulative effects</b> experienced by private dwellings at Elm Corner and Wilderness Cottage for <b>land take and changes in access</b> during construction and once both schemes are operational. In addition to the impacts on the proposed Scheme, the Airfield development proposes to change the existing access routes in the area, making Old Lane one way, which would be the new Scheme access for Elm Corner and Wilderness Cottage.</p> <p>The <b>amenity</b> of the properties would be affected by both Schemes and considered <b>moderate adverse</b>. The properties are currently secluded, and the nature of the area would be become more urban through the development of the Airfield site.</p> <p>2068 dwellings including 60 sheltered units and 8 gypsy and traveller pitches are proposed on the land.</p> <p>There would be adverse construction phase cumulative effects for the <b>amenity</b> of future residents should the development be occupied before the Scheme is complete.</p> <p><b>Community assets</b></p> <p>Common Land to the east of Ockham Park junction would experience cumulative significant adverse effects from <b>land take and severance</b> during construction and operational phases of both schemes. <b>Large adverse</b> significant effects are anticipated but these will be mitigated by proposed Replacement Land.</p> <p>Users of common land, other open space and Ockham Village Green would experience a moderate adverse change in <b>amenity</b> during construction.</p>	Yes	Yes

Other Scheme	Cumulative impact on assets affected by Scheme	Additional significant construction effects	Additional significant operation effects
	<p>As part of the phased development, a secondary school, primary school, community provision, nursery provision, health facility and recreational facilities are proposed.</p> <p>The Scheme may delay the implementation of the new community assets during construction having a <b>slight adverse</b> significant effect during construction. Once operational, the effects would be slight beneficial as the Scheme would increase road capacity for the new settlement and surrounding area.</p> <p><b><u>Local businesses and the local economy</u></b></p> <p>Local Business will likely experience slight adverse cumulative effects during construction and operation of the two developments together due to changes to access from the A3.</p> <p>As part of the phased new development, a new local centre is proposed and an employment area.</p> <p>The Scheme may delay the implementation of the new local businesses during construction having a <b>slight adverse</b> significant effect during construction. Once operational, the effects would be slight <b>beneficial</b> as the Scheme would increase road capacity for the new settlement and surrounding area.</p> <p><b><u>Agricultural land</u></b></p> <p>It is not anticipated that there will be any cumulative effects on <b>Agricultural land</b> during construction or operation.</p> <p><b><u>Development land</u></b></p> <p>The former Wisley Airfield is an identified Development Land site in the ES. The Scheme would impact on the proposed layout of the development, but it wouldn't prevent the development from taking place.</p> <p>The Wisley Airfield Masterplan Land Use Parameter Plan, ref 1715/P/002 Rev P2, indicates this would affect land identified for employment uses, open space and green infrastructure and potentially a location for a pumping station.</p> <p>The Scheme would direct traffic for RHS Wisley and Wisley Village through the development site along the realigned Wisley Lane, off Ockham Park junction.</p> <p>Ultimately though the Scheme will unlock the development potential of the site by increasing the capacity of the junction, including the A3 resulting in beneficial cumulative effects.</p> <p>It is considered the overall effects would be <b>neutral</b>.</p>		

Other Scheme	Cumulative impact on assets affected by Scheme	Additional significant construction effects	Additional significant operation effects
	<p>Significant cumulative effects are not anticipated for other Development Land sites.</p> <p><b><u>NMU</u></b> Users of Footpath 13, Footpath 13a, Footpath 15, Footpath 19 and Bridleway 544 would be affected by both schemes during construction and adverse cumulative effects would be experienced with regards to temporary <b>severance and changes in amenity</b>. Once operational, the Scheme proposes a new re-routed NMU facility along the new road leading to Wisley Bridge, leading off Ockham Park junction resulting in beneficial cumulative effects on the <b>amenity</b> of NMU at Ockham Park junction as a result of the operational Wisley Airfield development.</p> <p><b><u>Vehicle travellers</u></b> It is anticipated there will be adverse cumulative effects on <b>Views from the road</b> during construction and the construction of the developments due to new Wisley overbridge and clearance of vegetation. These effects would be <b>moderate adverse</b> as it is noted that SWT remove vegetation as part of their maintaining land in the area. There will be cumulative effects on <b>Driver stress</b> during construction, which would be mitigated by Traffic Management. Once the Scheme is operational Driver Stress will reduce and therefore the beneficial cumulative effects are considered.</p>		
<p>Land to the East of South Cottage, White Horse Lane, Ripley, GU23 6BB (16/P/00608)</p>	<p>It is assumed this development will have been implemented when the Scheme would commence, and this development is beyond the Zone of Influence for people and communities.</p>	<p>None anticipated</p>	<p>None anticipated</p>
<p>RHS Wisley Wisley Lane, Wisley, Woking, GU23 6QS (16/P/02080)</p> <p>The RHS website indicates construction between 2017-2021</p>	<p>It is expected that there will be some overlap of this development with the construction of the Scheme.</p> <p><b><u>Private dwellings</u></b> No significant cumulative effects are anticipated for private dwellings in Wisley as a result of the two developments.</p> <p><b><u>Community assets</u></b> RHS Wisley is an identified Community Asset receptor. It is not considered that there would be <b>significant adverse</b> cumulative effects on the receptor or other community assets as a result of the implementation of the two developments.</p>	<p>Yes</p>	<p>No</p>

Other Scheme	Cumulative impact on assets affected by Scheme	Additional significant construction effects	Additional significant operation effects
	<p>Once the Scheme is operational, there will be moderate beneficial cumulative effects due to the improved safer access for RHS Wisley, which supports its major projects objectives.</p> <p><b><u>Local businesses and the local economy</u></b></p> <p>No significant cumulative effects are anticipated for local businesses. The RHS is considered as a Community asset for this assessment.</p> <p><b><u>Agricultural land</u></b></p> <p>It is not anticipated that there will be any cumulative effects on <b>Agricultural land</b> during construction or operation.</p> <p><b><u>Development land</u></b></p> <p>This planning consent at RHS Wisley is identified as a Development Land receptor. There would be land take by the Scheme, but it would not prevent the development going ahead and aims to make access safer, and therefore it is considered there would be no significant effects.</p> <p><b><u>NMU</u></b></p> <p>Users of Footpath 7 which runs between the RHS site and its carpark, would experience a moderate adverse effect on their amenity during an overlap in construction.</p> <p>There would be a moderate beneficial effect once the Scheme and the RHS developments are operational due to an improved NMU access across Wisley Bridge and to Wisley Common.</p> <p><b><u>Vehicle travellers</u></b></p> <p>With regards to <b>Views from the road</b>, those travelling from the A3 or the Wisley over bridge during construction, would experience slight adverse cumulative effects due to the view of the construction works of the two developments. Once operational, there would be slight beneficial cumulative effect, with the view of the new buildings and the new Wisley Lane Overbridge from Wisley Lane.</p> <p><b>Driver stress</b> – during construction, it is anticipated there will be a moderate increase in Driver stress, but this will be mitigated by Traffic Management.</p> <p>Once operational, there will likely be more visitors to RHS Wisley and the Scheme improvements should increase the capacity of the network, reducing <b>Driver Stress</b> – but there may be increased Driver Stress due to frustration at the longer distance to be travelled to access RHS Wisley from the A3, which would be slight adverse.</p>		

Other Scheme	Cumulative impact on assets affected by Scheme	Additional significant construction effects	Additional significant operation effects
<p>RHS Wisley                      Wisley Lane, Wisley,                      Woking, GU23 6QS                      (16/P00976)</p> <p>The RHS website indicates construction between 2017-2021</p>	<p>It is expected that there will be some overlap of this development with the construction of the Scheme.</p> <p><b><u>Private dwellings</u></b>                      No significant cumulative effects are anticipated for private dwellings in Wisley as a result of the two developments.</p> <p><b><u>Community assets</u></b>                      RHS Wisley is an identified Community Asset receptor. It is not considered that there would be significant adverse cumulative effects on the receptor or other community assets.</p> <p>Once the Scheme is operational, there will be moderate beneficial cumulative effects due to the improved safer access for RHS Wisley, which supports its major project objectives.</p> <p><b><u>Local businesses and the local economy</u></b>                      No significant cumulative effects are anticipated for local businesses.</p> <p><b><u>Agricultural land</u></b>                      It is not anticipated that there will be any cumulative effects on <b>Agricultural land</b> during construction or operation.</p> <p><b><u>Development land</u></b>                      No land take by the Scheme would affect this planning consent and therefore it is not identified as a Development Land receptor. The proposed Scheme would not prevent the development going ahead, nor any other development land receptor in the area and therefore it is considered there would be no significant effects.</p> <p><b><u>NMU</u></b>                      Users of Footpath 7 which runs between the RHS site and its carpark, would experience a moderate adverse effect on its amenity during an overlap in construction.</p> <p><b><u>Vehicle travellers</u></b>                      With regards to <b>Views from the road</b>, it is considered that there is not view of this development from the road.</p> <p><b>Driver stress</b> – during construction, it is anticipated there will be a moderate increase in Driver stress, but this will be mitigated by Traffic Management.</p>	<p>Yes</p>	<p>No</p>

Other Scheme	Cumulative impact on assets affected by Scheme	Additional significant construction effects	Additional significant operation effects
	Once operational, there will likely be more visitors to RHS Wisley and the Scheme improvements should increase the capacity of the network, reducing <b>Driver Stress</b> – but there may be increased Driver Stress due to frustration at the longer distance to be travelled to access RHS Wisley from the A3, which would be slight adverse.		
Land at Garlick's Arch (Policy A43)	This development is beyond the Zone of Influence for people and communities.	No	No
Land for new north facing slip roads to/from A3 from Burnt Common (Policy A43)	This site is beyond the Zone of Influence for people and communities.	No	No
The Former San Domenico Restaurant (2017/0524)	<p>It is considered that the Scheme may prevent this development from going ahead until after it is complete, so there will be no adverse cumulative effects during construction.</p> <p><b><u>Private dwellings</u></b>            Once the Scheme is operational there would be no significant cumulative effects on private dwellings.</p> <p><b><u>Community assets</u></b>            Once the Scheme is operational, there would be increased traffic flow past Feltonfleet School to access San Domenico, but improvements for access to the school as a result of the Scheme would result in a neutral effect for the school.</p> <p><b><u>Local businesses and the local economy</u></b>            It is not anticipated that there would be significant adverse cumulative effects on local businesses</p> <p><b><u>Agricultural land</u></b>            It is not anticipated that there would be significant cumulative effects on agricultural land.</p> <p><b><u>Development land</u></b>            This application has been refused by Elmbridge Borough Council on the basis of unsafe and unsuitable access arrangements onto the A3. However, it has been considered due to the application's eligibility for appeal but is considered unlikely to come to fruition. Were the application to be approved, the proposal would be incompatible with the Scheme, due</p>	Yes	Yes

Other Scheme	Cumulative impact on assets affected by Scheme	Additional significant construction effects	Additional significant operation effects
	<p>to temporary loss of land forming a construction compound, and due to permanent loss of access to the A3 forming instead a local access road/public bridleway <b>NMU</b>.</p> <p>There would be no significant cumulative effects for NMU.</p> <p><b>Vehicle travellers</b></p> <p>No significant adverse cumulative effects for <b>Views from the road</b> are anticipated.</p> <p>No significant adverse cumulative effects for <b>Driver Stress</b> are anticipated.</p>		
<p>Enfin, Painshill Farm, Portsmouth Road, Cobham</p>	<p>It is expected that there will be some overlap of this development with the construction of the Scheme.</p> <p><b>Private dwellings</b></p> <p>During construction, the development and the Scheme may have adverse effects on the amenity of the residential receptors on Portsmouth Road (West Lodge, East Lodge, Clock House and Belfry House due to construction air quality, noise and landscape and visual. Once operational there would be no significant cumulative effects on private dwellings.</p> <p><b>Community assets</b></p> <p>During construction the Scheme may delay the delivery of the development which is a care home and will be a community asset.</p> <p>During construction, the development and the Scheme may have adverse effects on the amenity of visitors to Painshill Park.</p> <p>Once operational there would be no significant cumulative effects.</p> <p><b>Local businesses and the local economy</b></p> <p>It is not anticipated that there would be significant adverse cumulative effects on local businesses.</p> <p><b>Agricultural land</b></p> <p>It is not anticipated that there would be significant cumulative effects on agricultural land.</p> <p><b>Development land</b></p> <p>The Scheme does not propose land take of this development site.</p> <p>There will be no cumulative effects with other Development Land sites during construction or if operational.</p> <p><b>NMU</b></p>	<p>Yes</p>	<p>Not anticipated</p>

Other Scheme	Cumulative impact on assets affected by Scheme	Additional significant construction effects	Additional significant operation effects
	<p>There would be no significant cumulative effects for NMU.</p> <p><b><u>Vehicle travellers</u></b></p> <p>There will be some vegetation clearance but no significant adverse cumulative effects for <b>Views from the road</b> are anticipated during construction or once operational.</p> <p>Significant adverse cumulative effects for <b>Driver Stress</b> due to the access point to the site being on the A245 would be expected, but this would need to be mitigated by traffic management.</p>		
<p>Site of 46 Portsmouth Road, Cobham, Surrey, KT11 1HY (2015/0997)</p>	<p>This development is beyond the Zone of Influence for people and communities.</p>	<p>No</p>	<p>No</p>
<p>Holly Parade, High Street, Cobham, KT11 3EE (2016/2185)</p>	<p>This development is beyond the Zone of Influence for people and communities.</p>	<p>No</p>	<p>No</p>
<p>Feltonfleet School, Byfleet Road, Cobham, KT11 1DR (2017/2106)</p>	<p><b><u>Private dwellings</u></b></p> <p>There would be no significant cumulative effects on private dwellings.</p> <p><b><u>Community assets</u></b></p> <p>Feltonfleet School is a community asset receptor Improvements for access to the school as a result of the Scheme would result in cumulative beneficial effects for the school.</p> <p><b><u>Local businesses and the local economy</u></b></p> <p>It is not anticipated that there would be significant adverse cumulative effects on local businesses.</p> <p><b><u>Agricultural land</u></b></p> <p>It is not anticipated that there would be significant cumulative effects on agricultural land.</p> <p><b><u>Development land</u></b></p> <p>The site is also identified as Development Land due to this planning consent. There will be <b>neutral</b> cumulative effects due to the Scheme once operational, as a result of alterations to access arrangements and some land take along boundary with A3.</p> <p>There will be no cumulative effects with other Development Land sites during construction or if operational.</p>	<p>No</p>	<p>No</p>

Other Scheme	Cumulative impact on assets affected by Scheme	Additional significant construction effects	Additional significant operation effects
	<p><b><u>NMU</u></b>                      There would be no significant cumulative effects for NMU.</p> <p><b><u>Vehicle travellers</u></b>                      No significant cumulative effects for <b>Views from the road</b> are anticipated.                      There would likely be <b>slight adverse</b> cumulative effects on <b>Driver Stress</b> during construction due to the need for additional traffic management. Once operational there would be no significant cumulative effects.</p>		
Land at Chippings Farm, Portsmouth Road, Cobham, KT11 1EH (Land Parcel 20)	This development is beyond the Zone of Influence for people and communities.	No	No
Land surrounding West Hall, Parvis Road, West Byfleet (Site allocation GB15)	This development is beyond the Zone of Influence for people and communities.	No	No
Broadoaks, Parvis Road, West Byfleet (PLAN/2018/0359)	This development is beyond the Zone of Influence for people and communities.	No	No
Land to The North of Old Woking Road and East of Station Approach, West Byfleet, Woking, Surrey, KT14 6NG	This development is beyond the Zone of Influence for people and communities.	No	No
Camphill Tip, Camphill Road, West Byfleet (Site allocation UA49)	This development is beyond the Zone of Influence for people and communities.	No	No
Site Allocation UA1 (Woking Local Plan)	This development is beyond the Zone of Influence for people and communities.	No	No

Other Scheme	Cumulative impact on assets affected by Scheme	Additional significant construction effects	Additional significant operation effects
Library, 71 High Road, Byfleet			
IE1 Site 51 / HO6/7 Byfleet Road, New Haw	This development is beyond the Zone of Influence for people and communities.	No	No
App no RU.17/1477 (Runnymede) Central Veterinary Laboratory (APHA) Woodham Lane New Haw KT15 3NB	This development is beyond the Zone of Influence for people and communities.	No	No

## 13.12 NPSNN compliance

- 13.12.1 Paragraph 3.19 identifies the Government's commitment to creating a more accessible and inclusive transport network that provides a range of opportunities and choices for people to connect with jobs, services and friends and family. The Scheme objectives include to incorporate safe, convenient, accessible and attractive walking, cycling and equestrian routes and improve crossing facilities and this chapter has set out anticipated effects of the Scheme on walkers, cyclists and equestrians, mitigation measures and enhancements that have been designed into the Scheme to benefit NMU.
- 13.12.2 Paragraph 3.22 identifies that where appropriate applicants should seek to deliver improvements that reduce community severance and improve accessibility. The Scheme is anticipated to maintain the connectivity offered by recreational routes for non-motorised users (NMU) and will include new, altered and improved PRoW and overbridges which will improve conditions and accessibility for NMU.
- 13.12.3 Paragraphs 5.162 identifies that access to high quality open spaces, Public Rights of Way (PRoW), the countryside and opportunities for sport and recreation can be a means of providing mitigation and/or compensation requirements for developments. It is considered that the Scheme has achieved this.
- 13.12.4 In compliance with paragraph 5.165, this chapter has identified existing and proposed land uses near the project and assessed the effects of precluding new development or proposed uses in the development plan. The chapter covers the potential effects of the Scheme on existing land uses, development land and planning applications.
- 13.12.5 Paragraph 5.166 states that "Existing open space, sports and recreational buildings and land should not be developed unless the land is surplus to requirements or the loss would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location." As set out in the Community Assets assessment, the Scheme requires existing open space in the form of common land and other open space. This is not surplus to requirements and is therefore being replaced by equivalent or better provision. The full details of the replacement land are in the Statement of Reasons Appendix C Replacement Land.
- 13.12.6 In line with NPS paragraph 5.168 and 5.176, this chapter assesses the impact of the Scheme on agricultural land, including the economic impact on farms and land-based enterprises with particular emphasis on agricultural quality of soils and best and most versatile land. The Scheme will result in a loss of 6.28 ha of BMV land, well below Natural England's 20 ha significance threshold. Measures to protect soil quality on site during construction of the Scheme will be implemented as part of the CEMP. The chapter considers the impact of overall agricultural land loss on farms and other land-based enterprises. Seven holdings will permanently lose land, with only two of these anticipated to be significantly adversely impacted.
- 13.12.7 In conformity with NPS paragraph 5.184, this chapter provides details of the impact of the Scheme on walkers, cyclists and equestrians - including changes to severance, accessibility, journey amenity and length. It sets out, where

necessary, specific mitigation measures to address significant adverse effects on routes and access during construction and operation of the Scheme. The Scheme also contains in-built enhancements for connectivity and amenity of non-motorised users.

## 13.13 Monitoring

- 13.13.1 No monitoring is possible for the loss of the vacant ancillary dwelling at the former San Domenico restaurant site.
- 13.13.2 Disturbed land restored to grazing or farming will be subject to an agreed aftercare period, during which time any problems with settlement, drainage and noxious weeds will be rectified. This process will be overseen by a qualified soil scientist.
- 13.13.3 Consideration will be given to users of the M25 and A3 main roads and the surrounding minor roads and NMU of nearby routes.
- 13.13.4 Monitoring of certain design elements will be ensured as mentioned in other relevant chapters of the ES, air quality, noise and vibration, landscape, geology and soils, road drainage and water environment, and materials and waste. This should include monitoring for the need for additional noise barriers and effectiveness of designed in/existing noise barriers, numbers of road traffic incidents to ensure that road safety has been improved, traffic flows to ensure that congestion is reduced and use of PRow, footpaths and cycleways to ensure that there is no reduction in usage.
- 13.13.5 Monitoring suggested in other chapters may be relevant to receptors in the People & Communities chapters, particularly around human health and amenity.

## 13.14 Summary

### Private dwellings

- 13.14.1 There will be a moderate adverse effect on private dwellings during construction due to the demolition of the vacant ancillary residential unit at the former San Domenico restaurant site. This effect will be permanent but will not have residual operational effects, as the effect will be experienced within the construction phase.
- 13.14.2 No significant effects are anticipated due to land take and severance.

### Community assets

- 13.14.3 Temporary land take during construction is considered to be significant adverse at the high sensitivity receptors of Ockham Common, Wisley Common and other open space. These effects are temporary in nature. Mitigation for this effect should include land being returned and restored to previous condition. All other receptors are considered to have non-significant effects.
- 13.14.4 Whilst extensive land take is anticipated at Sandpit Hill and Redhill Bottom, these receptors are not of high community value and alternatives are available for outdoor recreation and leisure. Therefore, no significant effects are anticipated in the construction phase due to permanent land take.

13.14.5 The Scheme includes extensively revised access arrangement to Wisley Garden, comprising a new overbridge for Wisley Lane over the A3 and new access road south of the A3 linking to the Ockham interchange. This arrangement is likely to be less convenient for visitors approaching from the south west on the A3, who would be obliged to exit the A3 earlier and approach via Portsmouth Road or continue past the gardens and switch back at junction 10 and again at Ockham junction. However, these arrangements will be much safer and less stressful for visitors to RHS Wisley. Therefore, in operation severance is considered to be neutral on balance.

### **Local businesses and the local economy**

13.14.6 There will be moderate adverse effects during construction as a result of land take from Nutberry Farm Car Boot Sale.

### **Agricultural land**

13.14.7 The Scheme will involve the permanent loss to farming and land-based enterprises of 21.19 ha. Of this, 6.28 ha (31%) is of BMV quality which is locally but not nationally significant.

13.14.8 Seven holdings will permanently lose land but only on Park Barn Farm where this loss will result in significant adverse effect, due to the scale of land lost. Elsewhere it is neutral or slight adverse.

13.14.9 Four holdings will suffer a temporary loss of land to compounds during the construction phase, but the land will be returned to its original condition and so the residual effect will be neutral.

13.14.10 The SPA compensation areas on Wisley and Ockham Commons will have improved grazing potential and so the residual effect will be slight beneficial.

### **Development land**

13.14.11 Sensitivity of sites was assessed on a case by case basis, and it was judged that all assessed sites were of medium sensitivity to the Scheme, with the exception of Feltonfleet School and the former San Domenico Restaurant, which were of high sensitivity.

13.14.12 Adverse effects are anticipated during construction at Wisley Airfield (both for the strategic mixed-use development allocation and the in-vessel composting facility, due to the land take necessary at the western part of the site. Adverse effects are also anticipated during construction at Feltonfleet School, where access alterations and proximity to Painshill junction would cause some inconvenience.

13.14.13 Once operational, the Scheme would benefit the Strategic Allocation at Wisley Airfield, by allowing better access and lessening the local impacts of congestion. There would be a negative impact upon the in-vessel composting facility at Wisley Airfield due to the re-alignment of Wisley Lane running through the site, however it is considered unlikely that this scheme will be realised as it is inconsistent with Allocation A35.

13.14.14 Both Feltonfleet School and RHS Wisley would be subject to a neutral effect once the Scheme is operational, as access to both sites would be altered to more circuitous, but safer routes. Feltonfleet School would lose some peripheral areas of playing fields and landscaping, but this would not impact upon the

school's function or proposed developments. Changes to access at RHS Wisley would not inhibit improvements to its front of house facilities.

- 13.14.15 Significant adverse effects are anticipated at the site of the former San Domenico restaurant (currently occupied by Starbucks), where the Scheme will remove the current access from the A3. A planning application for a petrol filling station on the site has been refused. Significant adverse effects are anticipated owing to the site's proposed use as a satellite construction compound and the permanent stopping up of direct A3 access during both construction and operation.

### **Non-motorised users**

- 13.14.16 Significant adverse effects are anticipated for NMUs during construction particularly for the A3 pedestrian & cycle route and BW12 around the vicinity of junction 10 however, these are likely to be temporary and dependent on the construction phasing with alternative routes becoming available. Significant adverse effects are also expected at other non-designated NMU facilities, such as the pedestrian crossings at Painshill and Ockham junctions, the closure of Old Byfleet Road at Feltonfleet School and the permissive equestrian routes on Ockham Common and Cockrow Hill.
- 13.14.17 During construction significant adverse effects are likely at some PRoWs either temporarily or as part of full or part closure. FP10 which will be stopped up for a short distance close to the A3 and connected to the new A3 bridleway and new Cockrow overbridge across the A3, Byway BY525 will be adversely affected through its upgrade and resurfacing, FP12 which will be stopped up and diverted to the new Redhill Overbridge, FP11 which connects with Clearmount Bridge and the proposed new Redhill Overbridge, FP14 which will be stopped up and diverted alongside the A3 to meet the new Wisley Lane Overbridge and NMU facility, BW544 will also be extended to meet the new Wisley Lane Overbridge and bridleway, FP13 and FP13a which will be stopped up and diverted where they will meet the new Wisley Lane bridleway. BW8 will be stopped up and diverted to meet the new Clearmount Bridge, FP9 will be partly stopped up at the A3 and will meet the new proposed restricted byway and FP7 at the RHS Wisley Gardens car park will be adversely affected.
- 13.14.18 Once operational the Scheme is generally anticipated to provide significant benefits to NMUs with increased bridleway routes available for equestrian users than at present. The A3 pedestrian and cycle route will start from the opposite side of the A3 at Seven Hills Road and see significant improvements and will be upgraded to a bridleway that is set back from the A3, providing NMUs new overbridges across the A3 and M25 negating the need for at grade crossings at these locations. The new A3 bridleway route will connect to the new Wisley lane bridleway. A new pedestrian and cycle route following the A245 between Painshill junction and Seven Hills Road will replace the closed Old Byfleet Road.
- 13.14.19 Large beneficial effects once the Scheme is operational are also anticipated at the upgraded pedestrian crossings at Painshill and Ockham junctions, the new bridleway and overbridge connecting Redhill to Pointers Road, , the new Bridleway on Ockham Common, FP10 and FP11 are to be upgraded for equestrian users to Bridleway, a new bridleway connecting BW8, FP7 and FP11, the new footpath north of Old Lane connecting BW18 and FP71 through the proposed Replacement Public Open Space.

## **Vehicle travellers**

- 13.14.20 During construction, moderate adverse effects are likely to be experienced by road users around junction 10 (A3 and M25) due to loss of amenity planting and changes to the landscape.
- 13.14.21 Slight adverse effects during construction are anticipated on side roads due to the presence of construction vehicles.
- 13.14.22 In Year 1 of operation, moderate adverse effects on road users around junction 10 (A3 and M25) would remain due to mitigation planting not yet becoming established and with new highways elements remaining visible. By Year 15, planting would reduce impacts to a slight adverse effect.
- 13.14.23 Side roads would continue to have slight adverse effects in Year 1 of operation. Once mitigation plantation has matured (by Year 15), the significance of effect would consequently be reduced to neutral.
- 13.14.24 Overall, the junction 10/A3 junction shows significant improvements in levels of driver stress through the interchange. However, there is likely to be moderate to high levels of driver stress along the slip roads as vehicle travellers merge onto the highways.
- 13.14.25 In general, driver stress remains mostly unchanged once operational, with some sections of the major nearby highways seeing a decrease in stress and others seeing increases. In the longer term, there is an overall trend for increased vehicle flows throughout the affected road network, this is generally due to natural traffic growth over time and is not considered significant through the interchange.

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