

A38 Derby Junctions

TR010022

Volume 1

1.1 Introduction to the Application

Regulation 5(2) (q)

Planning Act 2008

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

April 2019

Infrastructure Planning

Planning Act 2008

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

A38 Derby Junctions Development Consent Order 202[]

Introduction to the Application

Regulation Number	Regulation 5(2)(q)
Planning Inspectorate Scheme Reference	TR010022
Application Document Reference	1.1
Author	A38 Derby Junctions Project Team, Highways England

Version	Date	Status of Version
1	April 2019	DCO Application

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1. Introduction

1.1 Purpose of this document

- 1.1.1 Highways England (the Applicant) has submitted an application under s37 of the Planning Act 2008 for an order to grant development consent (a DCO) for the A38 Derby Junctions (the Scheme).
- 1.1.2 This document provides an accessible guide to the Scheme, Applicant and application, and it will assist those in reviewing the application documentation.

1.2 Structure of this document

- 1.2.1 This document comprises 12 sections as described below:
- Chapter 1 - Introduces this document;
 - Chapter 2 - Provides a high-level description of the Scheme;
 - Chapter 3 - Introduces Highways England;
 - Chapter 4 - Gives an overview of the application documentation;
 - Chapter 5 to 11 - These sections explain the purpose of each of the documents submitted; and
 - Chapter 12 – Contains a Glossary and abbreviations.

2. The Scheme

2.1 Description

2.1.1 The A38 Derby Junctions (The “Scheme”) includes the replacement of three roundabouts on the A38 in Derby (Kingsway, Markeaton and Little Eaton) with grade-separated interchanges, and seeks to remove congestion and support development and growth in the Derby area.

2.1.2 Works to the Kingsway junction would include:

- A38 lowered, into the existing cutting, to pass underneath a new bridge joining two new roundabouts (replacing the existing roundabout) in a dumbbell arrangement, at existing ground level.
- A38 widened to three lanes in each direction between Kingsway and Markeaton junctions with the speed limit increased from 40mph to 50mph;
- Local access provided by a road link to Kingsway Park Close; and
- Closure of existing left-in, left-out accesses from the A38 to Brackensdale Avenue and Raleigh Street.

2.1.3 Works to the Markeaton junction would include:

- A38 lowered to pass underneath a new roundabout, in a new underpass with two new bridges to carry the A52 and signalised roundabout traffic across the lowered A38;
- A38 widened to three lanes in each direction between Markeaton and Kedleston Road junctions with the speed limit increased from 40mph to 50mph;
- Speed limit increased from 40mph to 50mph;
- The existing entrance to Markeaton Park from the roundabout would be closed. An improved entrance and exit to the park would be provided from the A52 instead;
- Access to the Esso petrol station and McDonald’s would be modified from both the A52 and proposed A38 northbound off slip; and
- The existing pedestrian footbridge, to the north of the junction, over the A38 would be replaced with a new bridge that fully complies with current cyclist and wheelchair user requirements.

2.1.4 Works to the Little Eaton junction would include:

- The A38 realigned to the south and east of the existing roundabout and built on an embankment.
- The existing roundabout extended to the south with new slip roads providing access onto and off the new A38. The new roundabout would enable connections to Ford Lane (mobile homes), the A61 and the B6179.

- New bridges built to carry the A38 traffic over the roundabout on a 'fly-over', this would separate the A38 through traffic from local traffic crossing, leaving and joining the A38;
- The existing bridge over the railway would be widened to carry the southbound A38 carriageway and new slip road. The existing part of the railway bridge would be retained for the northbound A38 carriageway;
- The existing left-in, left-out access from the A38 at Ford Lane would be closed for safety reasons;
- The existing national speed limit on the A38 would be retained, although an advisory 50mph would be displayed on the A38 approaches to the bend over the junction; and
- All existing footways and cycleways would be retained and rerouted around the roundabout.

2.1.5 In addition to the above, there is a number of environmental mitigation measures planned at each of the three junctions, including installation of noise barriers, provision of replacement public open space and installation of sustainable urban drainage.

2.2 Scheme Objectives

2.2.1 The Scheme objectives are:

Economy:

- To reduce delays and increase reliability of journeys on the strategic corridor.
- Assist in bringing forward development and regeneration opportunities in the surrounding area and immediately adjacent to the Scheme.
- To minimise traffic disruption due to construction works and incidents.
- To achieve optimal whole-life cost taking into account future maintenance, operation and disruption to users.

Environment:

- To minimise impacts on both the natural and built environment, including designated landscape and biodiversity features.
- To seek to mitigate impacts on air quality or noise.
- To ensure effective measures are in place to protect watercourses from pollutant spillage on the highway.
- To investigate and to encourage the use of environmentally friendly operations and products throughout the project life cycle.

Society:

- To improve the safety for all road users.

- To manage the safety risk for road workers in accordance with the requirements of GD04/12 (now replaced by GG104) - Standard for the Safety Risk Assessment on the Strategic Road Network and the Health and Safety at Work 1974 Act to be As Low As Reasonably Practicable (ALARP).
- To improve safety for residents in the vicinity of the junctions.
- To facilitate integration with other transport modes where applicable.
- To ensure a consistent high standard of signing relating to the junctions.
- To reduce severance by maintaining or providing appropriate facilities for crossing and travelling along the route for pedestrians and cyclists.

Public Accounts:

- To be affordable and represent High Value for Money according to Department for Transport (DfT) appraisal criteria.

Scheme-specific:

- Improve integration by supporting the local transport plan.
- Facilitate regional development and growth in Derby City and its surrounding areas and increase capacity of the strategic road network to absorb growth.

2.2.2 The need for the Scheme is comprehensively set out in the Planning Statement [TR010022/APP/7.2] Transport Assessment Report [TR010022/APP/7.3] and Statement of Reasons [TR010022/APP/4.1].

2.3 Scheme History, Timeline and Future Milestones

2.3.1 The history of the Scheme and future milestones are summarised below;

Year	Activity
2001	The Highways Agency (now Highways England) undertook a Road Based Study to consider options for dealing with congestion and safety, environmental impacts, economic, accessibility and integration problems as associated with the Kingsway junction, Markeaton junction and Little Eaton junctions on the A38 through Derby.
2002	A public consultation on various short-term and long-term options was held and within the same year, the Road Based Study was issued and recommended that the long-term improvements should involve grade-separation of each of the three junctions.
2002 -2008	Between 2002 and 2008, preliminary design work and studies were undertaken by the Highways Agency (now Highways England) and consultants were appointed to establish the design limitations. Despite ministerial support for the improvement of the junctions, the Scheme was put on hold in 2008 following a government spending review.
2008 -2013	The Scheme remained on hold.
2013	The Scheme was announced as part of the Government spending review.

Year	Activity
2014	In 2014, the Highways Agency (now Highways England) commissioned a review of the Scheme's status to identify the work required to take it to the next development stage. The scope of the review included re-examining the traffic problems and options to confirm if a solution was required. In 2014 work on the options design stage recommenced.
2015	The government launched its first 'Road Investment Strategy', which set out a long-term programme for motorways and major roads with the stable funding needed to plan effectively. The RIS announced 127 major Schemes to be delivered over the course of the first Road Period (2015/ 16 to 2019/ 20), one of which was the Scheme.
2018	Following analysis of design options and public consultation, the preferred route for the Scheme was announced (PRA) on the 31 st of January 2018. Following this announcement, the application for a Development Consent Order was prepared.
April 2019	The application for the Scheme was submitted to The Planning Inspectorate.
2020	Construction of the Scheme will begin.
2024	The Scheme will be operational.

2.4 Qualification as a Nationally Significant Infrastructure Project

2.4.1 The Scheme is defined as a Nationally Significant Infrastructure Project (NSIP) under s14(1)(h) and s22 of the Planning Act 2008 (PA 2008) by virtue of the fact that it comprises the 'alteration' of a highway and

- The highway is wholly in England;
- The Secretary of State is the highway authority for the highway; and;
- The area of development is greater than 12.5 hectares and the speed limit for any class of vehicle is 50mph per hour or greater.

2.4.2 A DCO is therefore required to allow the construction and operation of the Scheme.

3. The Applicant

3.1 Highways England

3.1.1 Highways England is appointed and licensed by the Secretary of State for Transport as the strategic highways company for England. It is responsible for operating, maintaining and improving the strategic road network in England on behalf of the Secretary of State for Transport. The network is made up of England's motorways and all-purpose trunk roads (the major "A" roads) and the existing A38 is part of the trunk road network for which Highways England is responsible. Following construction of the Scheme, Highways England will continue to be responsible for operating, maintaining and improving (under its general statutory powers) the A38.

3.1.2 The Scheme contact details are:

A38 Derby Junctions Project Team,
Regional Investment Programme, Major Projects
Highways England
Floor 5, Two Colmore Square
38 Colmore Circus
Birmingham
B4 6BN
Email: A38derbyjunctions@highwaysengland.co.uk

3.2 The A38 Derby Junctions Project Team

3.2.1 The Scheme is managed by Highways England from its Birmingham office by the A38 Derby Junctions Project Team, which is responsible for delivering the Scheme in accordance with the Scheme's requirements.

4. Application documents

- 4.1.1 A list of documents forming the application submission is set out in the Covering Letter [TR010022/APP/1.2] and further detail on the documents within the application is provided in the following chapters, with an overall summary of the volumes that make up the application submission being provided below.
- 4.1.2 If you require a copy of any of the application documents, or parts of them, please contact the A38 Derby Junctions Project Team (contact details in Section 3.1.2). A USB stick containing these documents will be provided free of charge. A request for hard copies will be subject to a 'reasonable' charge to cover the cost of printing and distribution.

Volume	Content
1. Application information	The completed application form and an introduction to the Scheme as required by the Inspectorate, along with the covering letter and s55 checklist.
2. Plans, Drawings and Sections	Plans that illustrate the location of the Scheme, the proposed works, and provide local geographical information.
3. Draft Development Consent Order	The legal powers that Highways England is seeking to enable it to build, operate and maintain the Scheme, together with separate documents explaining the provisions of the Order.
4. Compulsory Acquisition Information	Evidence of why Highways England requires legal powers to compulsorily acquire land, how the Scheme will be funded and details of the land interests that are required for the construction and use of the Scheme.
5. Consultation Report	Details of the pre-application consultation that Highways England has undertaken on the Scheme and how consultation feedback has been taken into account.
6. Environmental Statement	An assessment of the likely significant effects (both positive and negative) of the Scheme on the environment and a description of mitigation measures proposed to mitigate any significant environmental impacts.
7. Other Documents	Additional documents that support the DCO application; these are not legally required but provide useful information such as the Planning Statement and the Transport Assessment.

5. Volume 1 Application form/information/background

- 5.1.1 The Introduction to the Application [TR010022/APP/1.1] is this document and provides a summary of all the documentation provided for the DCO application.
- 5.1.2 The Covering Letter and completed s55 checklist [TR010022/APP/1.2] are completed to evidence how the application fulfils the conditions for acceptance by the Planning Inspectorate under s55 of the Planning Act 2008. The Schedule of Compliance with s55 will also be completed by the Planning Inspectorate on receipt of the DCO application.
- 5.1.3 The Application Form [TR010022/APP/1.3] is a standard form and provides a high-level summary of the Scheme and the documents that have been submitted. It is a form that originates from Schedule 2 of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009.
- 5.1.4 Copies of Newspaper Notices are those featured in local and national newspapers. Copies of the newspaper notices for the 2018 consultation can be found in Annex L of the Consultation Report Annexes [TR010022/APP/5.2]. These notices publicised the proposed application, the consultation material deposit locations and the process for making comments, in accordance with the Planning Act 2008. Chapter 3 of the Consultation Report [TR010022/APP/5.1] provides further details on these notices.
- 5.1.5 Highways England has completed an Electronic Index [TR010022/APP/1.4] provided by the Inspectorate, that lists the electronic file names for all of the DCO application documentation.

6. Volume 2 plans, drawings and sections

- 6.1.1 There are 11 sets of plans as described below. Where a plan comprises three or more separate sheets, a key plan is provided, showing the relationship between the different sheets. The exceptions to this are the Location Plan. Each plan (and each sheet within a set of plans) includes a key, which explains the use of symbols/lines/shading to denote features and information in the plans.
- 6.1.2 The Location Plan [TR010022/APP/2.1] identifies the location of the Scheme in its wider context.
- 6.1.3 The Land Plans [TR010022/APP/2.2] correspond to the Book of Reference [TR010022/APP/4.3] and, in summary, set out:
- the limits of land to be acquired or used permanently or temporarily;
 - the land to be acquired or used permanently for construction, operation and maintenance works for the Scheme;
 - any land over which temporary possession may be taken; and
 - any land to be used temporarily and for rights in the land to be acquired permanently.
- 6.1.4 The Special Category Land Plans [TR010022/APP/2.3] show the extent of existing open space land to be taken by the Scheme and details the provision for replacement land.
- 6.1.5 The Crown Land Plans [TR010022/APP/2.4] show the extent of the works in relation to land owned by The Crown Estate.
- 6.1.6 The Works Plans [TR010022/APP/2.5] show the centre line of the proposed works and the limits of deviation within which the Scheme and works may be carried out. Most importantly, the plans show the extent of the individual works.
- 6.1.7 The General Arrangement Scheme Layout Plans [TR010022/APP/2.6] provides an overview of the Scheme, providing details including permanent road closures, planned culverts and proposed attenuation ponds.
- 6.1.8 The Streets, Rights of Way and Access Plans [TR010022/APP/2.7] show any new or altered means of access, stopping up of streets, roads and any diversions, extinguishment or creation of rights of way.
- 6.1.9 The Traffic Regulation Measures Plans [TR010022/APP/2.8] are provided to show the speed limits, clearways, Red Routes, restrictions on vehicle weights, and classes of user which are proposed to be applied to the Scheme.
- 6.1.10 The Classification of Roads Plans [TR010022/APP/2.9] detail the highways classifications, which are proposed to be applied to the Scheme where new classifications are required, and existing classifications are changed.
- 6.1.11 The Engineering Section Drawings [TR010022/APP/2.10] show amongst other details the levels of the proposed works including:
- a. ground levels;
 - b. the height of the proposed bridges, viaducts and embankments;

- c. the depths of cuttings; and
- d. drainage outfall details.

6.1.12 The Outline Drainage Works [TR010022/APP/2.11] detail the drainage strategy for the Scheme including providing information on drainage outfalls.

7. Volume 3 draft development consent order

7.1.1 The Draft Development Consent Order [TR010022/APP/3.1] sets out the powers that Highways England is seeking to enable it to construct and maintain the Scheme. It sets out the parameters for what development would be permitted. It consists of 7 Parts, including the articles which provide the power Highways England needs to undertake the development and amend other legislation, insofar as it will apply to the Scheme. These 7 parts comprise Preliminary, Principal Powers, Streets, Supplemental Powers, Powers of Acquisition, Operations and Miscellaneous and General and are accompanied by 10 schedules as outlined below:

- **Schedule 1 Authorised Development** - lists the works that would be authorised by the grant of development consent, which are shown on the works plans and to which the schedule refers;
- **Schedule 2 Requirements** - sets out the conditions that Highways England would be required to accord with when implementing the development authorised by the DCO;
- **Schedule 3 Classification of Roads, ETC.** - lists the road classifications and the new and amended highways;
- **Schedule 4 Permanent Stopping up of Streets and Private Means of Access** - sets out the streets and private means of access that would be permanently stopped up as a result of the Scheme;
- **Schedule 5 Land in which only New Rights ETC. may be Acquired** - sets out the land in which Highways England is only seeking to acquire new rights or impose restrictive covenants (such as a right to maintain new drainage infrastructure or access to construct tracks that are located on another person's land) rather than acquiring the entire freehold interest in that land;
- **Schedule 6 Modification of Compensation and Compulsory Purchase Enactments for Creation of New Rights and Imposition of Restrictive New Covenants** - amends relevant compulsory acquisition legislation to ensure that it can apply to the DCO (particularly in relation to compensation provisions in connection with land and rights compulsorily acquired under the DCO and to allow the imposition of restrictive covenants in particular);
- **Schedule 7 - Land of which Temporary Possession may be taken** - sets out the land which Highways England is seeking to possess temporarily for the purpose of constructing the Scheme;
- **Schedule 8 – Trees Subject to a Tree Preservation Order** – sets out the trees covered by a Tree Preservation Order(s) and the nature of the works to be carried out.
- **Schedule 9 - Protective Provisions** - includes provisions to protect the interests of various bodies in the context of the Scheme (e.g. statutory undertakers); and

- **Schedule 10 - Certification of Plans and Documents, ETC,** - sets out those documents to be certified by the Secretary of State for the purposes of the DCO.

- 7.1.2 The Explanatory Memorandum to the Draft Development Consent Order [TR010022/APP/3.2] - explains the purpose and effect of each provision in the draft order including why it is considered necessary.
- 7.1.3 The Consents and Agreements Position Statement [TR010022/APP/3.3] sets out the intended strategy for obtaining the consents and associated agreements needed to implement the Scheme.

8. Volume 4 compulsory acquisition information

- 8.1.1 In order to implement the Scheme, Highways England will need to use statutory powers to acquire land and rights in land, and to possess and use land temporarily. Highways England is required to provide evidence that the use of these powers would be justified, proportionate and in the public interest and this evidence is set out in a Statement of Reasons [TR010022/APP/4.1] Funding Statement [TR010022/APP/4.2] and Book of Reference [TR010022/APP/4.3] as explained below.
- 8.1.2 The Statement of Reasons [TR010022/APP/4.1] explains that there is a compelling case in the public interest, which would justify Highways England's exercise of powers of compulsory acquisition in order to acquire land and rights permanently and to use land temporarily to enable it to construct, operate and maintain the Scheme.
- 8.1.3 The Funding Statement [TR010022/APP/4.2] explains how the Scheme, including any compulsory purchase acquisition, would be funded.
- 8.1.4 The Book of Reference [TR010022/APP/4.3] identifies all Parties who own or occupy land and/or have an interest in or right over the land affected by the Scheme, and/or who may be entitled to make a 'relevant claim' as defined in s57 of the Planning Act 2008. It is structured in five parts in accordance with relevant regulatory requirements. The five parts are:
- **Part 1:** Names and addresses for service of each person or organisation within Categories 1 and 2 as defined in s57 of the Planning Act 2008 in respect of any land which it is proposed shall be subject to:
 - powers of compulsory acquisition;
 - rights to use land, including the right to attach brackets or other equipment to buildings; or
 - rights to carry out protective works to buildings;

Category 1 interests are owners, lessees, tenants, or occupiers of land.
Category 2 interests are those who have an interest in the land or who have the power to sell and convey the land or release the land.
 - **Part 2:** Names and addresses for service of each person or organisation within Category 3. These are interests who might be entitled to make a relevant claim if the DCO were consented and implemented, e.g. potential claimants under Part 1 of the Land Compensation Act 1973 (c. 26), s10 of the Compulsory Purchase Act 1965, s152(3) of the Planning Act 2008.
 - **Part 3:** Names of all those entitled to enjoy easements or other private rights over land (including private rights of navigation over water) which it is proposed shall be extinguished, suspended or interfered in the DCO.
 - **Part 4:** Owner of any Crown interest in the land, which it is proposed to be used for the purposes of the order for which application is being made.

- **Part 5:** Land the acquisition of which could be subject to special parliamentary procedure is special category land, in the case of the Scheme this comprises open space and land offered in exchange as replacement land.

9. Volume 5 reports/statements

- 9.1.1 The Consultation Report [TR010022/APP/5.1] provides an account of the pre-application consultation undertaken on the Scheme. The report includes details of the statutory consultation which Highways England is required to undertake in accordance with the Planning Act 2008, the informal engagement that has taken place, and how the comments received have been taken into account when developing the Scheme.
- 9.1.2 A range of annexes [TR010022/APP/5.2] support the Consultation Report and are described below:

Annex Letter	Annex Name
Annex A	Non-Statutory Consultation
Annex B	Planning Inspectorate Environmental Impact Assessment Letter
Annex C	Copy of Draft Statement of Community Consultation (SoCC)
Annex D	Letter to Local Authorities for SoCC Consultation
Annex E	Responses from Local Authorities on Draft SoCC
Annex F	Published A38 Derby Junctions SoCC
Annex G	List of Prescribed Consultees Identified and Consulted
Annex H	List of Land Interests
Annex I	S42 Letters and Enclosures with Date
Annex J	S46 Letter and the Enclosures Sent to The Planning Inspectorate and Acknowledgment
Annex K	S47 Consultation Material
Annex L	S48 Newspaper Notices
Annex M	Table of Protective Provisions for Statutory Undertakers
Annex N	List of any Additional Consultation Recipients
Annex O	Regard had to Consultation Responses

10. Volume 6 environmental impact assessment (EIA) information

- 10.1.1 Highways England has undertaken an environmental impact assessment (EIA) of the Scheme to consider what significant effects the Scheme is likely to have on the environment. The Environmental Statement [TR010022/APP/6.1] reports the findings of the EIA.
- 10.1.2 The Environmental Statement also provides general information on the Scheme including context, description of the Scheme and its construction, main alternatives considered, the consultation process that was part of the EIA and technical information on a range of topics. This chapter provides an overview of the structure of the document to assist with navigation.
- 10.1.3 The Environmental Statement includes the following Chapters:
- Chapter 1: Introduction
 - Chapter 2: The Scheme
 - Chapter 3: Scheme History and Assessment of Alternatives
 - Chapter 4: Environmental Impact Assessment Methodology
 - Chapter 5: Air Quality
 - Chapter 6: Cultural Heritage
 - Chapter 7: Landscape and Visual Impact Assessment
 - Chapter 8: Biodiversity
 - Chapter 9: Noise and Vibration
 - Chapter 10: Geology and Soils
 - Chapter 11: Material Assets and Waste
 - Chapter 12: People and Communities
 - Chapter 13: Road Drainage and the Water Environment
 - Chapter 14: Climate
 - Chapter 15: Assessment of Cumulative Effects
 - Chapter 16: Summary of Residual Effects
- 10.1.4 For the Non-Technical Summary, the following Parts are included;
- Chapter 1: Introduction
 - Chapter 2: Need for the Scheme
 - Chapter 3: Scheme Objectives
 - Chapter 4: The Applicant
 - Chapter 5: Scheme Description

- Chapter 6: Alternative Studies and Consultation
- Chapter 7: Assessment of Likely Significant Effects
- Chapter 8: Air Quality
- Chapter 9: Cultural Heritage
- Chapter 10: Landscape and Visual
- Chapter 11: Biodiversity
- Chapter 12: Noise and Vibration
- Chapter 13: Geology and Soils
- Chapter 14: Material Assets and Waste
- Chapter 15: People and Communities
- Chapter 16: Road Drainage and the Water Environment
- Chapter 17: Climate
- Chapter 18: Assessment of Cumulative Effects
- Chapter 19: Summary of Significant Effects
- Chapter 20: Next Steps

10.1.5 The Environmental Statement is supported by a series of figures, which support the findings of the EIA. These are provided in the Environmental Statement Figures document [TR010022/APP/6.2].

10.1.6 The Environmental Statement is also accompanied by a series of Appendices, which provide further information and detail to support the EIA. These are provided in the Environmental Statement Appendices document [TR010022/APP/6.3], with a summary presented below.

Appendix Number	Appendix Name
1.1	Details of technical staff qualifications and experience
2.1	Outline Environmental Management Plan
2.2	Environmental Mitigation Schedule
2.3	Traffic Management Plan
3.1	Highways England (2016) Alternative Options Assessment – Kingsway, Report Number: 47071319-URS-06-RP-RD-014-3F
3.2	Highways England (2016) Options Assessment – Little Eaton, Report Number: 47071319-URS-06-RP-RD-013-6F
3.3	Highways England (2016) A38 Derby Junctions - Options Assessment: Little Eaton. Options 2A, 2B, X and X1. Report No: 47071319-URS-06-RP-RDN-024
3.4	Highways England (2017) A38 Derby Junctions - Option 2C Assessment. Report Number: HE514503-ACM-HGN-Z3_JN_J3_ZZ-RP-CH-0001 P01.1 S0
4.1	Scoping Opinion

Appendix Number	Appendix Name
4.2	Scoping Opinion Response Table (Chapters 1 - 4)
4.3	Transboundary Screening Matrix
4.4	Major Events Screening & Assessment
5.1	Air quality monitoring data
5.2	Air quality methodologies
5.3	Air quality results
6.1	Heritage Impact Assessment (HIA) for Derwent Valley Mills World Heritage Site (WHS)
6.2	Gazetteer of cultural heritage assets
6.3	Plates
7.1	Visual Effects Schedule
7.2	Arboricultural Impact Assessment Report
8.1	Summary of ecological surveys and studies to date
8.2	Habitat Regulations Assessment – No Significant Effects Report
8.3(a)	Extended Phase 1 Habitat Survey and Preliminary Roost Assessment for Bats – Site 25
8.3(b)	Extended Phase 1 Habitat Survey in 2017
8.4(a)	Botanical Survey in 2018
8.4(b)	Botanical Survey in 2017 (AECOM)
8.4(c)	Botanical Survey in 2015 (AECOM)
8.5(a)	River Habitat Survey in 2018 (AECOM)
8.5(b)	River Habitat and River Corridor Survey in 2015 (AECOM)
8.6(a)	Great Crested Newt Surveys in 2017 (AECOM)
8.6(b)	Great Crested Newt Surveys in 2015 (AECOM)
8.7(a)	Reptile Surveys in 2018 (AECOM)
8.7(b)	Reptile Surveys in 2017 (AECOM)
8.7(c)	Reptile Surveys in 2015 (AECOM)
8.8(a)	Confidential Barn Owl Box and Nest Inspection 2018 (AECOM)
8.8(b)	Confidential Breeding Bird Survey in 2017 (AECOM)
8.8(c)	Confidential Breeding Bird Survey in 2015 (AECOM)
8.8(d)	Wintering Bird Survey in 2017/18 (AECOM)
8.8(e)	Wintering Bird Survey in 2016/2017 (AECOM)
8.9(a)	Bat Roost Surveys in 2018 (AECOM)
8.9(b)	Bat Roost Surveys – Buildings and Structures, in 2017 (AECOM)
8.9(c)	Bat Tree Climbing Survey 2017 Report

Appendix Number	Appendix Name
8.9(d)	Bat Activity Surveys in 2017
8.9(e)	Bat Trapping and Radio Tracking Surveys at Markeaton in 2017
8.9(f)	Bat Roost and Activity Surveys in 2015 (incl. Bat Trapping Surveys at Little Eaton in 2015) (AECOM)
8.10(a)	Confidential Badger Survey in 2018 (AECOM)
8.10(b)	Confidential Badger Territory Analysis Survey in 2017 (AECOM)
8.11(a)	Confidential Water Vole and Otter Survey in 2018 (AECOM)
8.11(b)	Confidential Water Vole and Otter Survey in 2017 (AECOM)
8.12(a)	White-clawed Crayfish Survey in 2018 (AECOM)
8.12(b)	White-clawed Crayfish Survey in 2017 (AECOM)
8.12(c)	White-clawed Crayfish Survey in 2015 (AECOM)
8.13(a)	Terrestrial Invertebrate Survey in 2018 (AECOM)
8.13(b)	Terrestrial Invertebrate Survey in 2015 (AECOM)
8.14	Aquatic Macroinvertebrate Survey in 2018 (AECOM)
8.15	Fish Survey in 2018 (AECOM)
8.16	Consultation Meeting Minutes (Various - AECOM Ecology and consultees – 2014-2018)
8.17	Details of statutory, non-statutory and non-designated sites located within 2km of the Scheme
8.18	Habitat Descriptions and Target Notes relevant to the Scheme Boundary
8.19	Letters of No Impediment from Natural England
8.20	Summary of Biodiversity Effects
9.1	Noise and vibration terminology
9.2	Construction phase noise predictions
9.3	Noise modelling details
9.4	Noise monitoring
10.1	Ground Investigation Factual Report
10.2	Monitoring Report (2017 and April 2018)
10.3	A38 Derby Junctions Preliminary Sources Study (2015)
10.4	A38 Derby Junctions Preliminary Sources Study Addendum, Link Road K2 (2016)
12.1	A38 Walking, Cycling and Horse Riding Assessment
12.2	Human Health
13.1	Assessment of Routine Road Runoff and Accidental Spillage Risk (HAWRAT)
13.2	Flood Risk Assessments (FRAs for each junction)

Appendix Number	Appendix Name
13.3	Water Framework Directive (WFD) assessments (for Kingsway junction and Little Eaton junction)
13.4	Road Drainage Strategy
14.1	Climate Resilience Baseline
14.2	Climate Impact Effects
15.1	Cumulative effects: Screening methodology.
15.2	Long list of cumulative developments.
15.3	Shortlist of cumulative developments.
15.4	Cumulative effects assessment.

- 10.1.7 The findings of the Environmental Statement are also summarised in the Environmental Statement Non-Technical Summary **[TR010022/APP/6.4]**.
- 10.1.8 The EIA and Environmental Statement have been produced in accordance with relevant legislation and current guidance. The content of the Environmental Statement was agreed through a Scoping Opinion with the Inspectorate **[TR010022/APP/6.5]** following the submission of a formal EIA Scoping request by Highways England.
- 10.1.9 An assessment of Nature Conservation effects is referenced within **[TR010022/APP/6.6]** with an assessment of Historic Environmental effects being referenced in **[TR010022/APP/6.7]**.
- 10.1.10 An Equality Impact Assessment Report has been prepared and this is presented as **[TR010022/APP/6.8]**.
- 10.1.11 There are some associated impacts on trees protected by Tree Preservation Orders. Further information is provided in the TPO impact and removal plans document **[TR010022/APP/6.9]**.
- 10.1.12 The Scheme is considered to not give rise to any significant effects to European designated sites. The results of this Assessment are contained in the Habitat Regulations Assessment: No Significant Effects Report **[TR010022/APP/6.10]**.
- 10.1.13 A Statement of Statutory Nuisance **[TR010022/APP/6.11]** is included within the application and identifies the matters set out in s79 of the Environmental Protection Act 1990 in respect of statutory nuisances and considers, whether the proposed development would engage one or more of those matters. Where any matters may be potentially engaged, this statement sets out its proposals for mitigating or limiting them.
- 10.1.14 The Outline Environmental Management Plan **[TR010022/APP/6.12]** provides an essential project specific tool to manage on site construction activities that may affect the environment. The key aims of the OEMP are to ensure all environmental mitigation, DCO requirements, consents and licences are met and to minimise and manage the risk of any adverse environmental effects.

- 10.1.15 A plan detailing the water bodies in the Humber River Basin Management plan area and an associated assessment of the effects on these features is referenced within **[TR010022/APP/6.13]**.

11. Volume 7 other documents

- 11.1.1 A range of additional documents are submitted with the DCO application. These documents are not legally required, but are intended to provide useful information on the scheme and aid detailed understanding of the application and its justification. Firstly, Flood Risk Assessments [TR010022/APP/7.1] have been prepared for each of the junctions to determine the potential flood risk impacts associated with the Scheme.
- 11.1.2 The Planning Statement [TR010022/APP/7.2] and associated National Policy Statement for National Networks (NPSNN) Accordance Table sets out the need for the Scheme, the objectives that it seeks to address, options and alternatives considered and an explanation of the Scheme over time. It sets out how the Scheme meets Highways England's objectives and how it aligns with government policy in the NPSNN.
- 11.1.3 Alongside the Planning Statement, a Transport Assessment Report [TR010022/APP/7.3] has been prepared to accompany the application. The report considers the future year traffic forecasts and transport benefits to be brought about as a result of the Scheme.
- 11.1.4 Finally, a Traffic Management Plan [TR010022/APP/7.4] has been prepared in support of the application that sets out in detail how the Scheme would be managed during the construction and operational phases. The plan would be subject to ongoing review throughout the construction and operation phases.

12. Glossary and Abbreviations

12.1.1 A description of the Terms and Abbreviations used throughout the application submission documentation is provided below in Tables 12.1 and 12.2, respectively.

Table 12.1: Terms used through the application for the Scheme and descriptions of these terms.

Term	Description
Above Ordnance Datum (AOD)	Above the mean sea level at Newlyn in Cornwall calculated between 1915 and 1921, taken as a reference point for the height data on Ordnance Survey maps.
Affected Road Network (ARN)	Parts of the road network which are identified as likely to be affected by changes in air quality as a result of a development project.
Aggregate	Granular material (e.g. sand and gravel or crushed rock) that can be used for building and/or civil engineering purposes (e.g. for concrete production).
Agricultural Land Classification (ALC)	The system devised and introduced by the Ministry of Agriculture, Fisheries and Food to classify agricultural land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. Land is graded between 1 (excellent quality) to 5 (very poor quality), with grade 3 subdivided into agricultural subgrades 3a and 3b.
Air quality action plan	A plan that must be compiled by a local authority if they declare an air quality management area.
Air quality dispersion modelling	An advanced dispersion model used to model the air quality impact of projects.
Air quality exceedance	Where pollutant concentrations exceed an air quality standard.
Air quality limit value	A maximum pollutant concentration to be achieved in the atmosphere, either without exception or with a permitted number of exceedances. Limit values are defined in European Union Directives and implemented in United Kingdom legislation.
Air Quality Management Area (AQMA)	If a local authority identifies any locations within its boundaries where the air quality objectives are not likely to be achieved, it must declare the area as an air quality management area. The local authority is subsequently required to put together a local air quality action plan.
Air quality objective	Objectives are policy targets generally expressed as a maximum ambient pollutant concentration to be achieved. The objectives are set out in the UK Government's Air Quality Strategy for the key air pollutants.
Alluvial deposits	Natural materials deposited within and adjacent to rivers.
Ambient noise	A sound that is totally encompassing in a given situation at a given time usually composed of sound from many sources near and far.
Ancient woodland	Land that has been continually wooded since at least the year 1600AD.
Annual Average Daily Traffic	A measure used in transportation engineering and is the number of vehicles that will use a new or improved road on an average day.
Annual Average Weekday Traffic	The average 24-hour traffic volume occurring on weekdays throughout a full year.
Ambient noise	The total sound in a certain situation at a given time usually composed of sound from many sources, near and far.

Term	Description
Amenity	The relative pleasantness of a journey, or the ability of communities to achieve enjoyment and/ or quality of life.
Annual Average Weekly Traffic	Traffic data obtained by calculating weekly traffic flows and then calculating the annual average. Often used in predicting noise levels and air quality, usually in conjunction with other parameters such as average vehicle speed and percentage heavy vehicles.
Annual Exceedance Probability	Flood frequency is expressed in terms of an annual exceedance probability, which is the inverse of the annual maximum return period. For example, the 100-year flood (a flood likely to occur once every 100 years) can be expressed as the 1% AEP flood, which has a 1% chance of being exceeded in any year.
Appropriate Assessment	An assessment of the effects of a plan or project on the Natura 2000 network of European sites of nature conservation significance. The assessment focuses on the plan or project's implications for the site and any potential adverse impacts on its integrity.
Aquifer	An underground layer of water-bearing permeable rock, rock fractures or unconsolidated materials (gravel, sand or silt).
A-Road	A type of road prefixed with the letter 'A'. These are the busiest and most direct main roads, apart from motorways, and can be of different standard.
Attenuation pond	A pond designed to hold back water and release it at a controlled flow rate.
At-grade junction	An intersection of highways where the crossing is at the same level.
Baseline conditions	The environment as it appears (or would appear) immediately prior to the implementation of the project together with any known or foreseeable future changes that will take place before completion of the project.
Base Year	Reflects the year which the data has been collected.
Basic noise level	A measure of source noise at a reference distance of 10m from the nearside carriageway edge.
Bedrock	Rock that underlies loose deposits such as soil or alluvium.
Below ground level (bgl)	Term used to differentiate below ground from above ground.
Best and most versatile land	Land defined as grades 1, 2 and 3a of the Agricultural Land Classification. This land is considered the most flexible, productive and efficient and is most capable of delivering crops for food and non-food uses.
Biodiversity	The biological diversity of the earth's living resources. The total range of variability among systems and organisms at the following levels of organisation: bioregional, landscape, ecosystem, habitat, communities, species, populations, individuals, genes and the structural and functional relationships within and between these different levels.
Borehole	A hole bored into the ground, usually as part of investigations, typically to test the depth and quality of soil, rock and groundwater. A borehole can also be used to dewater the ground.
Bridge Deck	The component of a bridge superstructure that directly supports the road surface and traffic.
British Standards Institution (BSI)	A group which produces British Standards across industry sectors and which is formally designated as the National Standards Body for the UK.
Buffer	Specified area or distance surrounding a site or feature of interest.

Term	Description
Built heritage	A structure or building of historic value. These structures are visible above ground level.
Bund	An embankment structure.
Bypass	The diversion of a major road to carry traffic around a built up area, constructed to improve the journey of through traffic and/or improve the environmental conditions along the original route.
Calculation of Road Traffic Noise (CRTN)	A technical memorandum that describes the procedures for calculating noise from road traffic.
Carbon footprint	The total greenhouse gas emissions associated with a particular policy or development.
Carriageway	The width of a highway that can be used by motorised vehicles and non-motorised users, formed by a number of lanes.
Catchment	A drainage/basin area within which precipitation drains into a river system and eventually into the sea.
Chainage	The distance of any point along a road, measured along the road centreline from a chosen origin or start point.
Chartered Environmentalist	A professional qualification obtained by knowledgeable, experienced, competent and committed environmental professionals.
Climate	The climate can be described simply as the 'average weather', typically looked at over a period of 30 years. It can include temperature, rainfall, snow cover, or any other weather characteristic.
Climate change	This refers to a change in the state of the climate, which can be identified by changes in average climate characteristics, which persist for an extended period, typically decades or longer.
Combined effect	A type of cumulative effect, which occurs when different types of activity combine to have an effect on a specific receptor or resource.
Committed development	A development that has full or outline planning permission, or is allocated in an adopted development plan.
Compensation (environmental)	Mitigation measures applied where nothing can be done to reduce an environmental impact or effect. An example is habitat and species relocation.
Competent Expert(s)	The terms used in the EIA Regulations to describe a suitably qualified and experienced person (or persons) responsible for the preparation of the Environmental Statement, either as a whole or in part.
Compulsory acquisition	The acquisition of land (or rights over land) without the owner's consent, but in return for compensation.
Congestion	A situation where the volume of traffic is too great for the road, causing vehicles to slow down or stop, often caused by bottlenecks, traffic incidents and junction design.
Conservation area	An area designated under section 69 of the Planning (Listed Buildings and Conservation Areas) Act 1990 as being of special architectural or historic interest and with a character or appearance which is desirable to preserve or enhance.
Construction and demolition waste	Consists of unwanted material produced directly or indirectly as a result of the construction phase.

Term	Description
Construction compound	Construction compounds will generally act as the points of entry to the worksites from the public highway. They may also be used for major stockpiling of materials such as top soil, and to facilitate transfer of materials to and from the site.
Construction Design and Management Regulations 2015	The Construction (Design & Management) Regulations (CDM 2015) are the main set of regulations for managing the health, safety and welfare of construction projects.
Construction Environmental Management Plan (CEMP)	A plan prepared by a contractor which sets out how a construction project will avoid, minimise or mitigate effects on the environment and surrounding area and the protocols to be followed in implementing these measures, in accordance with environmental commitments.
Construction plant	Portable construction machinery and equipment.
Contractor	A general term used to describe an individual or company appointed by a developer to construct or manage a project at a certain price or rate.
Controlled waters	Rivers, streams, estuaries, lakes, canals, ditches, ponds and groundwater as far out as the UK territorial limit. The statutory definition is provided in section 104 (1) of the Water Resources Act 1991 and section 30A (d) of the Control of Pollution Act 1974.
County Wildlife Sites	CWS designation is non-statutory but is recognition of a site's high value for wildlife, with many sites being of county and often regional or national importance. They often support characteristic or threatened species and habitats included in Local and National Biodiversity Action Plans.
Culvert	A tunnel (pipe or box shaped) that carries a stream or open drain under a road or railway.
Cumulative effects (or impact)	Effects upon the environment that result from the incremental impact of an action when added to other past, present or reasonably foreseeable actions. Each impact by itself may not be significant but can become a significant effect when combined with other impacts.
Cutting	An earthwork to establish the road foundations (along with embankments), where the road is cut into the landscape, providing potential for visual screening and noise attenuation.
Cycle lane	A lane reserved exclusively for the use of bicycles.
Decibel (dB)	The scale used to measure noise is the decibel scale which extends from 0 to 140 decibels, corresponding to the intensity of the sound pressure level.
Delay	For pedestrians, this is the increase in the 'person-minutes' of the journey times of pedestrians and other non-motorised travellers. For traffic, this is the increase in journey times for drivers and passengers.
Department for Transport	Government department responsible for the transport network in England, and for aspects of the transport network in the devolved administrations.
Deposition (dust)	The vertical passage of a substance (e.g. dust) to a surface or the ground.
Design Manual for Roads and Bridges (DMRB)	A series of 15 volumes that provide standards, advice notes and other published documents relating to the design, assessment and operation of trunk roads, including motorways in the United Kingdom, and, with some amendments, the Republic of Ireland.
Design-development	The process in which technical specialists (engineers and environmentalists) refine the design for the various elements of a development project.

Term	Description
Detailed assessment	Method applied to gain an in-depth appreciation of the beneficial and adverse consequences of the project and to inform project decisions. Detailed Assessments are likely to require detailed field surveys and/or quantified modelling techniques.
Determination	The formal judgement as to whether a project requires statutory Environmental Impact Assessment or not.
Development Consent Order (DCO)	The means of applying for consent to undertake a Nationally Significant Infrastructure Project (NSIP). NSIPs include, for example, major energy and transport projects.
Diffusion tube monitoring	Diffusion tubes are a pollutant specific method of monitoring and measuring different pollutants, including measuring oxides of nitrogen (NOx). Diffusion tubes passively absorb the pollutant to which they are exposed in each place over a period, generally 2-4 weeks, and the tube is then returned to the laboratory for analysis.
Digital Terrain Model	A digital terrain model is a 3D representation of a terrain's surface.
Directive	Legal obligations imposed on European member states by the European Union.
Disbenefit	A disadvantage or loss resulting from something.
Diverge	The point where two streams of traffic split and go in different directions.
Do-Nothing	The Do Nothing forecasting scenario is simply the existing network without modification in the Opening/ Design Year.
Do-Minimum (DM) scenario	The Do-Minimum forecast scenario in the Opening/ Design Year is the base road and traffic network against which alternative improvements can be assessed. In many cases, the definition of the Do-Minimum is straightforward; it is simply the Do-Nothing scenario. However, 1 or more of the following 4 cases may arise, in which the 'Do-Minimum' differs from the 'Do-Nothing': i) The case where works will be carried out regardless of whether or not the Do-Something scheme is built. ii) The case where the existing network may be improved to form a 'Do-Minimum' scheme which can be tested as an alternative to carrying out major Do-Something improvements. iii) The case where traffic conditions can be improved without significant capital expenditure. iv) The case where the area covered by the modelled network includes road proposals other than the one under immediate consideration.
Do-Something (DS) scenario	The Do-Something forecast scenario is the road proposal under consideration in the Opening/ Design Year.
Driver stress	The adverse mental and physiological effects experienced by a driver traversing a road network.
Dumb-bell	A type of grade-separated junction, which takes the form of a roundabout either side of a major road, linked by a bridge.
Dust	All airborne particulate matter.
Earthworks	The removal or placement of soils and rocks such as in cuttings, embankments and environmental mitigation, including the in-situ improvement of soils/rocks to achieve the desired properties.
Ecosystem	Biological community of interacting organisms (e.g. plants and animals) and their environment.

Term	Description
Effect	Term used to express the consequence of an impact (expressed as the 'significance of effect'), which is determined by correlating the magnitude of the impact (or change) to the importance, value or sensitivity of the receptor or resource, in accordance with defined significance criteria.
Embankment	Artificially raised ground, commonly made of earth material, such as stone, on which the carriageway is laid.
Embedded mitigation	Mitigation measures incorporated (embedded) into the design of a development project, for example earthworks to visually screen traffic movements in available views.
Emission factor toolkit	Tool used to assist local authorities in carrying out Review and Assessment of local air quality as part of their duties under the Environmental Act 1995.
Enabling works	Enabling works are preparations to make a building site ready for construction. It covers activities from site preparation, creation of access routes, and the installation of facilities like security fencing, ramps, and placing of signs.
Enhancement	A measure that is over and above what is required to mitigate the adverse effects of a project.
Envirocheck	A provider of environmental data, reports and risk solutions for use in site-based assessments.
Environmental/ Ecological Clerk of Works	Supports compliance with legislation and planning conditions but also provides advice and guidance throughout construction.
Environmental assessment	A method and process by which information about environmental effects is collected, assessed and used to inform decision-making.
Environmental Health Officer	A local authority officer with responsibilities for protecting public health through the administration and enforcement of environmental health legislation.
Environmental Impact Assessment (EIA)	A process by which information about environmental effects of a proposed development is collected, assessed and used to inform decision-making. For certain projects, EIA is a statutory requirement.
Environmental effect	The consequence of an action (impact) upon the environment such as the decline of a breeding bird population as a result of the removal of hedgerows and trees.
Environmental impact	The change in the environment from a development such as the removal of a hedgerow.
Environmental masterplan	Plan which illustrates the mitigation measures integrated into the design of the Scheme.
Environmental Quality Standard (EQS)	Standards that have been developed with the aim to meet the requirements of the WFD Directive.
Environmental Statement	A document produced in accordance with the EIA Directive as transposed into UK law by the EIA Regulations to report the results of an EIA.
European Economic Area	The European Economic Area (EEA) was established via the EEA Agreement, an international agreement which allows for the extension of the EU's single market to non-EU member parties.
European Protected Species	Species of plants and animals (not birds) which are protected by European law.

Term	Description
European site	The generic term used to describe the following designated sites: <ul style="list-style-type: none"> • Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); • Sites that are in the process of designation as SACs and SPAs -these are known as proposed SACs (pSACs), candidate SACs (cSACs), potential SPAs (pSPAs) and Sites of Community Importance (SCIs), depending on the type of designation and point of progression through the designation process; and • Ramsar Sites.
Examining Authority	A panel of inspectors appointed by the Secretary of State who are responsible for examining Development Consent Order applications for nationally significant infrastructure projects.
Excavated material	Largely natural soil and rock material that is removed from the ground during construction.
Exchange land	Mitigation land which is not smaller in area and is equally advantageous to the users of land taken by a development project.
False cutting	A means of screening the road from the surrounding landscape.
Farm viability assessment	An assessment which establishes the current operational and economic conditions of agricultural businesses and how a development project could affect their future viability.
Fill	Material used to artificially raise the existing ground levels.
Find spot	A term used to describe the location at which an archaeological find was discovered.
Flood Risk Assessment (FRA)	The process of assessing potential flood risk to a site and identifying whether there are any flooding or surface water management issues that may warrant further consideration or may affect the feasibility of a development.
Flood Zone	Flood Zone definitions are set out in the National Planning Policy Guidance. Used to create a flood map for planning risk. There are 3 flood zones which refer to the probability of river and sea flooding, ignoring the presence of defences.
Flood Zone 1	Flood Zone 1: land outside the floodplain. There is little or no risk of flooding in this zone;
Flood Zone 2	Flood Zone 2: the area of the floodplain where there is a low to medium flood risk; and
Flood Zone 3	Flood Zone 3: the area of the floodplain where there is a high risk of flooding.
Floodplain	Land adjacent to a watercourse over which water flows or would flow in times of flood, but for defences in place.
Fluvial	A term that relates to rivers and streams and the processes that occur within them.
Fugitive dust	Visible emissions of dust that does not come from a definable point source, for example a smoke stack. Typical examples would include stored piles of soil, dry bare earth on construction sites or haul roads etc.
Future baseline	The situation and conditions that would prevail should a proposed development not proceed. Predicted impacts are compared against this theoretical scenario.
Gantry	A bridge-like overhead structure with a platform supporting equipment such as a crane, signals, or cameras.

Term	Description
Regionally Important Geological Sites (RIGS)	Locally designated sites of importance for geodiversity.
Geomorphology	The study of landforms and the processes which create them.
Geophysical survey	A process involving ground-based physical sensing techniques to determine the presence or absence of anomalies likely to be caused by archaeological features, structures or deposits.
Grade-separated junction	A type of junction where the major route (or routes) through the junction do not stop and do not cross any other road on the level. Movements to other roads are made using sliproads and bridges.
Green belt	A designation for land around certain cities and large built-up areas, which aims to keep this land permanently open or largely undeveloped.
Greenhouse gases	Atmospheric gases such as carbon dioxide, methane, chlorofluorocarbons, nitrous oxide, ozone, and water vapour that absorb and emit infrared radiation emitted by the Earth's surface, the atmosphere and clouds.
Ground investigation	An intrusive investigation undertaken to collect information relating to the ground conditions, normally for geotechnical or land contamination purposes.
Ground-borne vibration	Vibration generated by an event such as the pass-by vehicles in a tunnel, propagated through the ground or structure (i.e. not the air) into a receiving building.
Groundwater	All water which is below the surface of the ground and within the permanently saturated zone.
Groundwater source protection zone	Areas defined by the Environment Agency which show the risk from contamination/pollution to groundwater that is extracted for drinking water.
Habitat	The natural home or environment of an animal, plant, or other organism.
Habitat of principal importance	Habitats in England identified as requiring action in the UK Biodiversity Action Plan and which are regarded as having biodiversity conservation priorities.
Habitat Regulations Assessment	A Habitat Regulations Assessment is required where a project may have significant effects on a site by affecting its function to support protected habitats or species. Its purpose is to assess the implications of the proposal in respect of the site's ' <i>conservation objectives</i> '. The assessment is undertaken by the competent authority, in this case the Secretary of State.
Handover Environmental Management Plan (HEMP)	A package of information that is handed over to those responsible for the future management and operation of the highway.
Haul road	A temporary road provided within a contractor's site area to allow for the movement of construction material, construction machinery and/or construction labour around the site.
Heavy goods vehicle (HGV)	A commercial carrier vehicle with a gross vehicle weight of more than 3.5 tonnes.
Hectare	A metric unit of measurement, equal to 2.471 acres or 10,000 square metres.
Heritage asset	A building, monument, site, place, area or landscape of historic value.

Term	Description
Highways Agency Drainage Data Management System	Management system used to store technical information about the location and condition of drainage infrastructure on the network.
Highways Agency Water Risk Assessment Tool (HAWRAT)	A spreadsheet based application used to determine whether highway runoff is likely to have an ecological impact on surface watercourses.
Highways England	The government agency responsible for the operation, maintenance and improvement of England's trunk roads and motorways.
Historic Environmental Record (HER)	A record of all known archaeological finds and features and historic buildings and historic /landscape features, relating to all periods from the earliest human activity to the present day; maintained by each County and Unitary Authority in the United Kingdom.
Hot rolled asphalt	A common type of road surfacing comprising a dense mixture of mineral aggregate, sand and bitumen.
Hydrogeology	The nature, distribution and movement of groundwater in soils and rocks, including in aquifers.
Impact	Change that is caused by an action; for example, land clearing (action) during construction which results in habitat loss (impact).
Important hedgerow	A hedgerow that is at least 30 years old and which meets certain criteria relating to its particular archaeological, historical, wildlife and landscape value.
Inert waste	Defined in Article 2(e) of EU Landfill Directive (1999/31/EC) as waste that does not undergo any significant physical, chemical or biological transformations: <ul style="list-style-type: none"> • Inert waste does not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm to human health; and • The total leachability and pollutant content and the ecotoxicity of its leachate are insignificant and, in particular, do not endanger the quality of any surface water and/ or groundwater.
Interchange	A term used to describe a grade separated junction that provides free flow from one mainline to another.
Interim Advice Note (IAN)	Guidance notes issued by Highways England which incorporate amendments or additions to the Design Manual for Roads and Bridges.
Invasive species	Non-native UK plants that are invasive, for example Japanese Knotweed.
Junction	A place where two roads meet, regardless of design or layout.
Key characteristics (landscape)	The combination of elements that are particularly important to the current character of the landscape and help to give an area its particularly distinctive sense of place.
Landscape character area (LCA)	Areas of landscape that have a broadly consistent pattern of topography, land use and vegetation cover.
Land take	Land required for the Scheme
Lane	A section of carriageway marked out for the use of traffic, and typically intended for use in one direction.
Laydown area	An area used for the temporary storage of construction equipment and supplies.

Term	Description
Light goods vehicle	A motor vehicle used to carry goods with a total mass of up to 3.5 tonnes.
Link	A section of road between two junctions.
Listed building	A building of special architectural or historic interest. Listed buildings are graded I, II* or II, with Grade I being the highest. Listing includes the interior as well as the exterior of the building.
Local Air Quality Management	A key part in the UK Government's and the Devolved Administrations' strategies to achieve the air quality objectives.
Local Area Model	Traffic model which is used to test the impact of the Scheme on the local road network.
Local Biodiversity Action Plan	A plan that identifies threatened species and habitats and seeks to protect and restore biological systems.
Local Geological Site	Non-statutory geological sites considered worthy of protection for their earth science or landscape importance. Formerly known as Regionally Important Geological Sites.
Local Nature Reserves	Local Nature Reserves (LNRs) are a statutory designation made under s21 of the National Parks and Access to the Countryside Act 1949 by principal local authorities.
Local planning authority	The local authority or council that is empowered by law to exercise planning functions.
Local Wildlife Site (LWS)	Non-statutory sites of nature conservation value that have been designated 'locally'. These sites are referred to differently between counties with common terms including site of importance for nature conservation, county wildlife site, site of biological importance, site of local importance and sites of metropolitan importance.
Lowest Observed Adverse Effect Level	The lowest concentration or amount of a substance found by experiment or observation that causes an adverse alteration of morphology, function, capacity, growth, development, or lifespan of a target organism distinguished from normal organisms of the same species under defined conditions of exposure.
Low-noise surfacing	See thin surface course.
Made ground	Land where natural and undisturbed soils have largely been replaced by man-made or artificial materials. It may be composed of a variety of materials including imported natural soils and rocks with or without residues of industrial processes (such as ash) or demolition material (such as crushed brick or concrete).
Main river	A river maintained directly by the Environment Agency. They are generally larger arterial watercourses.
Mainline	The carriageway carrying the main flow of traffic, generally traffic passing straight through a junction or interchange.
Merge	The point where two different traffic flows come together and continue as one.
Mitigation	Measures including any process, activity, or design to avoid, reduce, remedy or compensate for negative environmental impacts or effects of a development.
Modelling	The process of estimating changes within an area of interest under a specific set of conditions.

Term	Description
Monitoring	A continuing assessment of the performance of the project, including mitigation measures. This determines if effects occur as predicted or if operations remain within acceptable limits, and if mitigation measures are as effective as predicted.
Multi-Agency Geographic Information Service	A website which provides geographic information about the natural environment.
National Character Area	Areas of England defined by their unique combination of landscape, biodiversity, geodiversity, history and cultural and economic activity.
National Cycle Network	A national cycling route network of the United Kingdom, which was established to encourage cycling throughout Britain, as well as for the purposes of bicycle touring.
National Planning Policy Framework (NPPF)	A planning framework which sets out the Government's planning policies for England and how these are expected to be applied.
National Policy Statement for England	Statements prepared and designated by the Secretary of State under the Planning Act 2008, which establish national policy for Nationally Significant Infrastructure Projects, including energy, transport and water, waste water and waste and against which applications for Development Consent Orders are assessed.
National Policy Statement for National Networks (NPSNN)	A statement setting out the need for, and Government's policies to deliver, the development of nationally significant infrastructure projects on the national road and rail networks in England.
National speed limit	The default speed limit which applies to roads without any posted limit, this being 60mph on single carriageway roads and 70mph on dual carriageways and motorways.
National Vegetation Classification	A comprehensive classification and description of the plant communities of Britain, administered by the Joint Nature Conservation Committee.
Nationally Significant Infrastructure Project (NSIP)	Nationally Significant Infrastructure Projects ("NSIP") are large scale developments such as certain new harbours, power generating stations (including wind farms), highways developments and electricity transmission lines, which require a type of consent known as 'development consent' under procedures governed by the Planning Act 2008 (and amended by the Localism Act 2011).
Natura 2000	A network of core breeding and resting sites for rare and threatened species, and some rare natural habitat types which are protected in their own right.
Nitrate vulnerable zone	Areas covering 62% of England designated as a result of the EU's Nitrates Directive in order to reduce the level of nitrates in surface and groundwater. Farmers with land in nitrate vulnerable zones have to follow mandatory rules to tackle nitrate loss from agriculture.
No Observed Effect Level	The no-observed-adverse-effect level (NOAEL) denotes the level of exposure of an organism, found by experiment or observation, at which there is no biologically or statistically significant increase in the frequency or severity of any adverse effects (e.g. alteration of morphology, functional capacity, growth, development or life span) in the exposed population when compared to its appropriate control.

Term	Description
Noise barrier	A solid construction that reduces unwanted sound. It may take many forms including: engineering cutting; retaining wall; noise fence barrier; landscape earthworks; a 'low level' barrier on a viaduct; a parapet barrier on a viaduct; or any combination of these measures. Also called an attenuation barrier.
Noise Important Area	Areas identified with respect to noise from major roads and from roads within agglomerations where 'the 1% of the population that are affected by the highest noise levels from major roads' are located according to the results of the strategic noise mapping.
Noise sensitive receptor	These comprise mainly residential buildings, but also include educational buildings, hospitals and places of worship.
Non-hazardous waste	Any waste not defined as 'hazardous' under Directive 91/689/EEC. Examples include soils from ground/site clearance and demolition wastes.
Non-motorised users	A collective term used to describe pedestrians, cyclists and equestrians (horse riders).
Non-Technical Summary (NTS)	Information for the non-specialist reader to enable them to understand the main predicted environmental effects of the proposal without reference to the main Environmental Statement.
Operational	The functioning of a project on completion of construction.
Ordinary watercourse	Ordinary watercourses include every river, stream, ditch, drain, cut, dyke, sluice, sewer (other than a public sewer) and passage through which water flows and which does not form part of a main river.
Ordnance Survey (OS)	The national mapping agency for the UK.
Outline Environmental Management Plan (OEMP)	The OEMP identifies environmental mitigation measures and has been used to inform the EIA. It defines those environmental commitments and actions which will be implemented (within the REAC). It includes a brief scheme description, identifies the roles and responsibilities of those who will be responsible for managing and reporting the construction phase environmental aspects. The OEMP will be used as a basis for the contractor's development of a Construction Environmental Management Plan (CEMP) and Handover Environmental Management Plan (HEMP).
Overbridge	A bridge crossing over a transport corridor (e.g. a highway).
Parapet	A parapet is a barrier which is an extension of the wall at the edge of a roof, terrace, balcony, walkway or other structure.
Particulate matter	Discrete particles in ambient air, with diameters ranging between nanometres (billionths of a metre) to micrometres (millionths of a metre).
Pathways	The routes by which pollutants are transmitted through air, water, soils, plants and organisms to their receptors.
Personal Protective Equipment (PPE)	Protective clothing, helmets, goggles, or other garments or equipment designed to protect the wearer's body from injury or infection.
Phase 1 habitat survey	A habitat classification and field survey technique to record semi-natural vegetation and other wildlife habitats.
Photomontage	Inserting an image of a proposed development onto a photograph for the purposes of creating an illustrative representation of potential changes to existing views.

Term	Description
Planning Inspectorate	An executive agency with responsibilities for planning appeals, national infrastructure planning applications, local plan examinations and other planning-related casework in England and Wales.
Planning Statement	A document prepared by applicants, which provides background and technical information on a development project, the purpose being to inform determination of a planning application by demonstrating its compliance with relevant planning policy.
Pollution prevention guidance (PPG)	A series of guidance notes produced by the Environment Agency to advise industry and the public on legal responsibilities and good environmental practice.
Potential Local Wildlife Site	An area being considered against defined nature conservation value criteria. This criteria takes into account the most important, distinctive and threatened species and habitats. If considered suitable pLWS are confirmed as LWS. See Local Wildlife Site.
Preferred option	The chosen design option that most successfully achieves the project objectives and becomes subject to further design and assessment.
Preferred Route Announcement (PRA)	An announcement made by Highways England following the selection of a preferred option or solution for a given road project.
Preliminary Environmental Information (PEI)	Preliminary Environmental Information is defined in the EIA Regulations as: <i>'information referred to in Part 1 of Schedule 4 (information for inclusion in environmental statements) which –</i> (a) <i>has been compiled by the applicant; and</i> (b) <i>is reasonably required to assess the environmental effects of the development (and of any associated development).'</i>
Preliminary Environmental Information Report (PEIR)	A report that compiles and presents the Preliminary Environmental Information gathered for a development project.
Preliminary Sources Study Report	Reports the geotechnical implications for the feasibility of all project options.
Principal aquifer	These are layers of rock or drift deposits that have high intergranular and/ or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/ or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer.
Project Control Framework (PCF)	A joint Department for Transport and Highways England approach to developing, delivering and managing major road projects.
Protected species	Species of wild plants, birds and animals which are afforded protection through legislative provisions.
Public Open Space	Land laid out or used by the public for the purposes of public recreation.
Public right of way (PRoW)	A highway where the public has the right to walk. It can be a footpath (used for walking), a bridleway (used for walking, riding a horse and cycling), or a byway that is open to all traffic (including motor vehicles).
Ramsar (site)	Wetland sites that are of international importance, as designated under Article 2(1) of the Convention on Wetlands of International Importance especially as Waterfowl Habitat. Ramsar (Iran), 2 February 1971. UN Treaty Series No. 14583.

Term	Description
Receptor	A defined individual environmental feature usually associated with population, fauna and flora that has potential to be affected by a project.
Record of Environmental Actions and Commitments (REAC)	The REAC forms part of the Outline Environmental Management Plan (OEMP) and defines the environmental actions and commitments, which have been identified and developed to mitigate the Scheme's environmental effects. The actions and commitments contained within the REAC are considered embedded mitigation and as such are considered to be in place within the ES assessments.
Remediation	The process of removing a pollution linkage (i.e. by removing one or more of the elements in a source-pathway-receptor linkage) in contaminated land in order to render an acceptable risk. Usually this involves a degree of removal of contaminants and/ or blockage of pathways.
Residual effect	The predicted consequential change on the environment from the impacts of a development after mitigation.
Resource	A defined but generally collective environmental feature usually associated with soil, water, air, climatic factors, landscape, material assets, including the architectural and archaeological heritage that has potential to be affected by a project.
Restoration (ecological)	The re-establishment of a damaged or degraded system or habitat to a level similar to its original condition.
Riparian	Relating to or situated on the banks of a river.
Risk assessment	An assessment of the probability of a hazard occurring that could result in an impact.
River Basin Management Plan (RBMP)	River basin management plans (RBMPs) set out how organisations, stakeholders and communities will work together to improve the water environment.
Road Investment Strategy (RIS)	A document which sets out a long-term vision for England's motorways and major roads, outlining how smooth, smart and sustainable roads will be achieved through investment over a five year period (2015 - 2020).
Rochdale Envelope	An approach to consenting and environmental impact assessment, named after a UK planning law case, which allows the promoters of development projects to broadly define their schemes within agreed parameters to retain flexibility of design.
Roundabout	A circular, one-way junction at which other roads meet and terminate.
Runoff	The flow of water over the ground surface.
Scheduled monument	A ' <i>nationally important</i> ' archaeological site or historic building, given protection against unauthorised change and included in the Schedule of Monuments kept by the Secretary of State for Culture, Media and Sport. The protection given to scheduled monuments is given under the Ancient Monuments and Archaeological Areas Act 1979.
Scheme	All works associated with the A38 Derby junctions scheme.
Scoping	The process of identifying the issues to be addressed by the Environmental Impact Assessment process. It is a method of ensuring that an assessment focuses on the important issues and avoids those that are considered to be not significant.

Term	Description
Scoping Opinion	The written opinion of the relevant authority, following a request from the applicant for planning permission, as to the information to be provided in an Environmental Statement.
Scoping Report	A report which records the outcomes of the scoping process and is typically submitted as part of a formal request for a Scoping Opinion.
Screening	The formal process undertaken to determine whether it is necessary to carry out a statutory Environmental Impact Assessment and publish an Environmental Statement in accordance with the EIA Regulations.
Secondary A aquifer	These are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.
Secondary B aquifer	These are predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.
Secretary of State	The cabinet minister who (among other things) acts as decision-maker on all national infrastructure applications for development consent.
Setting (cultural heritage)	The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive, negative or neutral contribution to the significance of an asset and may affect the ability to appreciate it.
Severance (land)	The splitting of a land holding into more than one part, for example through the introduction of a new section of road.
Severance (non-motorised users)	The perceived separation of residents from facilities and services they use within their community caused by new or improved roads, or by changes in traffic flows.
Significance (of effect)	A measure of the importance or gravity of the environmental effect, defined by generic significance criteria or criteria specific to an environmental topic.
Significant Observed Adverse Effect Level	The level of noise exposure above which significant adverse effects on health and quality of life occur.
Simple assessment	Initial, brief assessment activity based on the assembly of data and information that is readily available, to fulfil one of the following functions:
Site of Biological Importance	A non-statutory designation used by some local planning authorities to protect locally valued sites of biological diversity described as local wildlife sites by the UK Government.
Site of Importance for Nature Conservation (SINC)	Sites designated by local authorities for the purpose of conserving wildlife.
Site of Special Scientific Interest (SSSI)	Area of land notified by Natural England under section 28 of the Wildlife and Countryside Act 1981 as being of special interest due to its flora, fauna or geological or physiological features.
Site Waste Management Plan (SWMP)	A plan that is used to outline how a construction project will avoid, minimise or mitigate effects on waste production and handling on the environment and surrounding area.

Term	Description
Slip road	A connector road within a junction between a mainline carriageway and the local highway network, or vice versa, which meets the local highway network at-grade.
Sound power level	The sound power level of a source is a measurement of the total acoustic power it radiates. The sound power level is an intrinsic characteristic of a source (analogous to its volume or mass), which is not affected by the environment within which the source is located.
Sound pressure level	The parameter by which sound levels are measured in air. It is measured in decibels. The threshold of hearing has been set at 0dB, while the threshold of pain is approximately 120dB. Normal speech is approximately 60dB at a distance of 1 metre and a change of 3dB in a time varying sound signal is commonly regarded as being just detectable. A change of 10dB is subjectively twice, or half, as loud.
Source Protection Zone	Source Protection Zones ("SPZ") show the risk of contamination from any activities that might cause pollution to groundwater sources such as wells, boreholes and springs used for public water supplies. The closer the activity, the greater the risk. SPZs can comprise of up to three main zones (inner, outer and total catchment). A fourth zone of special interest can also occasionally be applied to a groundwater source.
Span	The horizontal distance between two supports of a structure (e.g. piers of a bridge or viaduct).
Spatial scope	The geographic area over which environmental impacts and effects could occur as a result of a development project.
Special Area of Conservation	Sites designated under EU legislation for the protection of habitats and species considered to be of European interest.
Special Category Land	The land identified as forming Open space as shown on the Special Category Land Plans.
Species of Principal Importance	Habitats and species of principal importance in England. S41 of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.
Stakeholder	An organisation or individual with a particular interest in a development project.
Standard mitigation	Measures comprising standard techniques and activities which are implemented during the construction of a development project to protect the environment and/or mitigate adverse effects, for example the covering of exposed materials to reduce dust emissions.
Statement of Outstanding Universal Value	To be included on the UNESCO World Heritage List, sites must be deemed to be of ' <i>outstanding universal value</i> '. OUV is ' <i>cultural and/ or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity</i> '. The Statement of Outstanding Universal Value shall be the basis for the future protection and management of the property.
Statement of Community Consultation	Report setting out how the applicant consulted with the local community about the Scheme and delivered its statutory consultation.
Statutory consultee	Organisations and bodies, defined by statute, which must be consulted on relevant planning matters.
Strategic road network	The network of motorways and trunk roads in England.

Term	Description
Study area	The spatial area within which environmental effects are assessed (i.e. extending a distance from the project footprint in which significant environmental effects are anticipated to occur).
Superficial deposit	A geological deposit that was laid down during the Quaternary period. Such deposits were largely formed by river, marine or glacial processes but can also include wind-blown deposits known as loess.
Surface water	Waters including rivers, lakes, loughs, reservoirs, canals, streams, ditches, coastal waters and estuaries.
Sustainable drainage systems (SuDs)	Measures designed to control surface runoff close to its source, including management practices and control measures such as storage tanks, basins, swales, ponds and lakes. Sustainable drainage systems allow a gradual release of water and thereby reduce the potential for downstream flooding.
Swale	A low or hollow place, especially a marshy depression between ridges.
Temporal scope	The duration of time over which environmental impacts and effects could occur as a result of a development project.
Thin surface course	A generic term used to describe a type of road surfacing which has a high stone content, laid at a thickness of less than 50mm. It is applied to reduce the noise resulting from the interaction of vehicle tyres with the road. Also known as low-noise surfacing.
Trackout	The transportation of dust and dirt from construction sites onto the road network.
Traffic	The total volume of vehicle traffic on a road flowing past a certain point over a year, divided by 365 days.
Transboundary effects	The term used to describe the significant environmental effects of a development project, which extend beyond the boundary of the European Economic Area State within which it would be implemented.
Translocation	The transporting and release of species or habitats from one location to another. For example, if an area of land is required permanently for a new development, species can be moved from that site to a suitable alternative location.
Transport Analysis Guidance (TAG)	Guidance produced by the Department for Transport for undertaking transportation studies, appraisals and modelling. Also referred to as WebTAG.
Tree Preservation Order (TPO)	An order made by a local planning authority, under the Town and Country Planning Act 1990, in respect of trees or woodlands. The principal effect of a tree preservation order is to prohibit the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of trees without the local planning authority's consent.
Trial trenching (cultural heritage)	A method of on-site archaeological investigation where trenches are dug at intervals across a site to identify any archaeological remains.
Trunk road	A road operated and maintained in England by Highways England.
Two-way trips	A person trip is a one-way journey by one person by any mode of transport, including walking, cycling, privately operated motor vehicles, or any public transport modes. A vehicle trip is a one-way journey by a single privately-operated motor vehicle regardless of the number of persons in the vehicle. Two-way trips refer to the total number of vehicle movements in both directions (i.e. with 200 westbound vehicles and 100 eastbound, there would be 300 two-way trips)

Term	Description
Unacceptable Adverse Effect Level	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory.
Underbridge (or underpass)	A bridge crossing under a transport corridor (e.g. a highway).
Unexploded ordnance	Explosives that did not explode when deployed and thus still pose a risk of detonation.
Unitary Development Plan	A statutory document that sets out the council's planning policies for development, conservation, regeneration and environmental improvement activity.
Upgrade	Refers to the physical improvement of a road, through widening of the carriageway or rebuilding a junction.
Utilities	The term utilities can also refer to the set of services provided by these organisations consumed by the public: Coal, electricity, natural gas, water, sewage, telephone, and transportation. Broadband internet services (both fixed-line and mobile) are increasingly being included within the definition.
Vehicle movement	A journey made by a vehicle. This can either be a one way or two-way trip.
Vehicle restraint systems	System installed on a road to provide a level of containment for an errant vehicle such as a safety barrier.
Viewpoint	A place from which something can be viewed.
VISSIM	A type of computer simulation software used in transportation assessments to model how traffic would interact on a given area of the road network.
Visual amenity	The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area.
Visual receptor	People who may have a view of a proposed development during construction or operation.
Water Framework Directive	The Water Framework Directive (WFD) introduced a new system for monitoring and classifying the quality of surface and ground waters. The Directive requires that Environmental Objectives be set for all surface waters and groundwater to enable them to achieve Good Ecological Potential/ Status by a defined date.
World Heritage Site	A site inscribed by UNESCO because of its Outstanding Universal Value under the terms of the UNESCO World Heritage Convention.
Worst-case assumption (or scenario)	An assumption adopted within an environmental impact assessment which identifies a scenario or parameter that would likely result in the maximum environmental effect (termed the worst-case). This is typically applied where uncertainty exists over the detail of a particular development component or approach to project delivery, for which a basis of assessment is needed.
Written Scheme of Investigation (WSI)	A Written Scheme of Investigation outlines known and potential archaeological features and deposits or built heritage elements on a site and suggests a structure for exploring them using the latest, most appropriate and cost-effective archaeological techniques.
Zone of Influence	The area for the assessment of combined effects. Zols are variable depending on the environmental factor being discussed.

Term	Description
Zone of Theoretical Visibility (ZTV)	A map, usually digitally produced, showing areas of land within which the Scheme is theoretically visible.

Table 12.2: Abbreviations used through the application for the Scheme and descriptions of these terms.

Abbreviation	Description
AA	Appropriate Assessment
AADT	Annual Average Daily Traffic
ACM	Asbestos Containing Materials
AEP	Annual Exceedance Probability
AIES	Assessment of Implications on European Sites
ALARP	As Low As Reasonably Practicable
ALC	Agricultural Land Classification
AMES	Areas of Multiple Sensitivity
AMS	Archaeological Mitigation Strategy
AOD	Above Ordinance Datum
AONB	Area of Outstanding Natural Beauty
APIS	Air Pollution Information System
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
AQS	Air Quality Strategy
BAP	Biodiversity Action Plan
BCT	Bat Conservation Trust
BEIS	Business, Energy and Industrial Strategy
BGS	British Geological Survey
BGL	Below Ground Level
BNL	Basic Noise Level
BOCC	Birds of Conservation Concern
BOD	Biochemical Oxygen Demand
BPM	Best Practicable Means
BS	British Standard
CA	Conservation Area
CAZ	Clean Air Zone
CCRA	Climate Change Risk Assessment
CDW	Construction Demolition Waste

Abbreviation	Description
CEA	Cumulative Effects Assessment
CEMP	Construction Environmental Management Plan
CEnv	Chartered Environmentalist
CH ₄	Methane
CIEEM	Chartered Institute of Ecology and Environmental Management
CL:AIRE	Contaminated Land: Applications in Real Environments
CO ₂	Carbon Dioxide
COPA	Control of Pollution Act
COSHH	Control of Substances Hazardous to Health
CP	Core Principles
CRM	Community Relations Manager
CRTN	Calculation of Road Traffic Noise
CRoW Act	Countryside and Rights of Way Act
CSci	Chartered Scientist
CSM	Conceptual Site Model
CWS	County Wildlife Site
D	Statutory Designated Asset (Heritage)
DAS	Discretionary Advice Service
dB	Decibel
DBtG	Derbyshire Bat Group
DCC	Derbyshire County Council
DCiC	Derby City Council
DCIM	Derby Integrated Catchment Model
DCLG	Department for Communities and Local Government
DCO	Development Consent Order
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
DM	Do Minimum
DMG	Derbyshire Mammal Group
DMRB	Design Manual for Roads and Bridges
DNES	Derbyshire and Nottinghamshire Entomological Society
DQRA	Detailed Quantitative Risk Assessment
DS	Do Something
DTM	Digital Terrain Model
DU	Duration

Abbreviation	Description
DVMWHS	Derwent Valley Mills heritage Site
DWT	Derbyshire Wildlife Trust
EBC	Erewash Borough Council
EC	Extent
EclA	Ecological Impact Assessment
ECOW	Ecological Clerk of Works
EEA	European Economic Area
EEA	European Economic Association
EFT	Emission Factor Toolkit
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EMS	Environmental Mitigation Schedule
END	Environmental Noise Directive
EnVis	Highways England Environmental Information System
EPS	European Protected Species
EPSML	European Protected Species Mitigation License
EQS	Environmental Quality Standards
ES	Environmental Statement
EU	European Union
EV	Electric Vehicle
EWC	European Waste Catalogue
FAD	Further Archaeological Design
FRA	Flood Risk Assessment
GAC	Generic Assessment Criteria
GCN	Great Crested Newt
GHG	Greenhouse Gas
GI	Green Infrastructure
GIR	Ground Investigation Report
GIS	Geographical Information System
GLVIA	Guidelines for Landscape and Visual Impact Assessment
GPP	Guidance for Pollution Prevention
GQA	General Quality Assessment
ha	Hectare
HAWRAT	Highways Agency Water Risk Assessment Tool
HADDMS	Highways England's Drainage Data Management System

Abbreviation	Description
HFCs	Hydrofluorocarbons
HDV	Heavy Duty Vehicles
HEBAP	Highways England Biodiversity Action Plan
HECCC	Highways England Customer Contact Centre
HEMP	Handover Environmental Management Plan
HER	Historic Environmental Record
HGV	Heavy Goods Vehicle
HIA	Heritage Impact Assessment
HLC	Historic Landscape Characterisation
HMWB	Heavily Modified Water Body
HPI	Habitat of Principal Importance
HRA	Habitats Regulations Assessment
HSWA	Health and Safety at Work etc. Act
HWRCs	Household Waste recycling Centres
IAN	Interim Advice Note
IAQM	Institute of Air Quality Management
ICCI	In-combination Climate Change Impact
ICOMOS	International Council on Monuments and Sites
ID	Identification
IEMA	Institute of Environmental Management and Assessment
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
JSNA	Joint Strategic Needs Assessments
km	Kilometre
KM	Kingsway/ Markeaton junctions
L _{A10}	A-weighted, sound level exceeded for 10% of the measurement period
L _{A10,18h}	A-weighted, arithmetic average of each 1 hour L _{A10} level over the 18 hour period 06:00-00:00
L _{A90}	A-weighted, sound level exceeded for 90% of the measurement period
L _{Aeq}	A-weighted, equivalent sound level over the measurement period
L _{AFmax}	A-weighted, maximum sound level over the measurement period, measured on 'fast' response
LAA	Local Aggregate Assessment
LAQM	Local Air Quality Management
LAQM.TG	Local Air Quality Management Technical Guidance
LBAP	Local Biodiversity Action Plan

Abbreviation	Description
LCA	Landscape Character Area
LCLIP	Local Climate Impacts Profile
LCT	Landscape Character Type
LE	Little Eaton
LGS	Local Geological Sites
LLCA	Local Landscape Character Area
LLFA	Lead Local Flood Authority
LNR	Local Nature Reserve
LOAEL	Lowest Observable Adverse Effect Level
LoNI	Letters of No Impediment
LT	Long Term
LTCA	Local Townscape Character Area
LTT	Long Term Trends
LV	Limit Value
LVIA	Landscape and Visual Impact Assessment
LWS	Local Wildlife Site
L_w	Sound Power Level
m	Metres
MCA	Mineral Consultation Areas
MCHW	Manual of Contract Document for Highways Works
MCIEEM	Full Member of the Chartered Institute of Ecology and Environmental Management
MHCLG	Ministry of Housing, Communities and Local Government
MIOA	Member of the institute of Acoustics
MOD	Ministry of Defence
MSA	Mineral Safeguarding Areas
MT	Motorised Travellers
NCA	National Character Areas
NCR	National Cycle Route
ND	Non-Designated Asset (Heritage)
NDBC	Notts and Derby Bus Company
NERC	Natural Environment and Rural Communities
NF ₃	Nitrogen trifluoride
NHLE	National Heritage List for England
NIA	Noise Important Area
NMU	Non-motorised Users

Abbreviation	Description
NNL	No-net Loss
NNR	National Nature Reserve
NOEL	No Observed Effect Level
NOx	Nitrogen Oxide
NO ₂	Nitrogen Dioxide
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NPSE	Noise Policy Statement for England
NPSNN	National Policy Statement for National Networks
NRMM	Non-Road Mobile Machinery
NSER	No Significant Effects Report
NSIP	Nationally Significant Infrastructure Project
NTS	Non-technical Summary
NVC	National Vegetation Classification
OEMP	Outline Environmental Management Plan
OS	Ordnance Survey
OUV	Outstanding Universal Value
OWSI	Overarching Written Scheme of Investigation
PA 2008	Planning Act 2008
PCF	Project Control Framework
PCM	Pollution Climate Mapping
PEC	Pedestrians, Equestrians and Cyclists
PEIR	Preliminary Environmental Information Report
PFCs	Perfluorocarbons
PLWS	Potential Local Wildlife Sites
PM	Particulate Matter
PO	Probability of Occurring
POS	Public Open Space
PRA	Preferred Route Announcement
PPE	Personal Protective Equipment
PPG	Planning Practice Guidance
PPG-N	Planning Practice Guidance on Noise
PPS	Planning Policy Statement
PPV	Peak Particle Velocity
PRoW	Public Right of Way

Abbreviation	Description
RBMP	River Basin Management Plan
RBS	Road Based Study
RDB	Red Data Book
RE	Reversibility
REAC	Register of Environmental Actions and Commitments
RHS	River Habitat Survey
RIS	Road Investment Strategy
RR	Regional Cycle Route
RV	Representative Viewpoint
SAC	Special Area of Conservation
SAR	Standardised Admissions Ratio
SCL	Special Category Land
SF ₆	Sulphur hexafluoride
SFRA	Strategic Flood Risk Assessment
SI	Statutory Instrument
SIR	Standardised Incidence Ratio
SLA	Special Landscape Area
SM	Scheduled Monument
SMR	Standardised Mortality Ratio
SOAEL	Significant Observed Adverse Effect Level
SOCC	Statement of Community Consultation
SoCG	Statement of Common Ground
SoS	Secretary of State
SOUV	Statement of Outstanding Universal Value
SPA	Special Protection Area
SPI	Species of Principal Importance
SPZ	Source Protection Zones
SQI	Species Quality Index
SRN	Strategic Road Network
SSSI	Sites of Special Scientific Interest
SSWSI	Site Specific Written Scheme(s) of Investigation
ST	Short-term
STW	Sewage Treatment Works
STW	Severn Trent Water
SuDS	Sustainable Drainage Systems

Abbreviation	Description
SWMP	Site Waste Management Plan
SZ	Size
TA	Territorial Army
TAG	Transport Analysis Guidance
TF	Timing and Frequency
TIN	Technical Information Note
TMP	Traffic Management Plan
TPH	Total Petroleum Hydrocarbons
TPO	Tree Preservation Order
TRL	Transport Research Laboratory
UID	Unique Identity Number
UK	United Kingdom
UKCP18	UK Climate Projections 2018
ULSD	Ultra-low Sulphur Diesel
UNECE	United Nations Economic Commission for Europe
UNESCO	United Nations Educational, Scientific and Cultural Organization
VP	Viewpoints
VR	Visual Receptor
WAC	Waste Acceptance Criteria
WBCSD	World Business Council for Sustainable Development
WFD	Water Framework Directive
WHO	World Health Organisation
WHS	World Heritage Site
WPZ	Water Protection Zone
WRAP	Waste & Resources Action Programme
WRI	World Resources Institute
ZoI	Zones of Influence
ZTV	Zone of Theoretical Visibility
4CBG	Four Countries' Biodiversity Group