The Great Grid Upgrade

Sea Link

Preliminary Environmental Information Report

Volume: 1

Part 3 Kent Onshore Scheme

Chapter 8 Traffic and Transport

Version A

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3.8 Traffic and Transport

3.8.1 Introduction

3.8.1.1 This chapter of the Preliminary Environmental Information Report (PEIR) presents information about the preliminary environmental assessment of the likely significant traffic and transport effects identified to date, that could result from Sea Link (hereafter referred to as the Proposed Project) (as described in **Volume 1, Part 1, Chapter 4, Description of the Proposed Project**).

3.8.1.2 This chapter describes the methodology used, the datasets that have informed the preliminary assessment, baseline conditions, mitigation measures and the preliminary traffic and transport residual significant effects that could result from the Proposed Project.

3.8.1.3 The draft Order Limits, which illustrate the boundary of the Proposed Project, are illustrated on **Figure 1.1.1 Draft Order Limits** and the Kent Onshore Scheme Boundary is illustrated on **Figure 1.1.3 Kent Onshore Scheme Boundary**.

3.8.1.4 This chapter should be read in conjunction with:

- **Volume 1, Part 1, Chapter 4, Description of the Proposed Project;**
- **Volume 1, Part 1, Chapter 5, PEIR Approach and Methodology;**
- **Volume 1, Part 1, Chapter 6, Scoping Opinion and EIA Consultation;**
- **Volume 1, Part 3, Chapter 1, Evolution of the Kent Onshore Scheme;** and
- **Volume 1, Part 3, Chapter 14, Suffolk Onshore Scheme Inter-Project**

Cumulative Effects.

3.8.1.5 This chapter is supported by the following figures:

- **Volume 3, Figure 1.4.20 Kent Onshore Scheme Traffic Routes during Construction and Operation;**
- **Volume 3, Figure 3.8.1 Traffic and Transport Study Area in Kent;**
- **Volume 3, Figure 3.8.2 HGV Routing Plan;**
- **Volume 3, Figure 3.8.3 Abnormal Load Routing Plan;**
- **Volume 3, Figure 3.8.4 Walking and Cycling Routes (including ProW);**
- **Volume 3, Figure 3.8.5 Department for Transport Traffic Count Locations;** and
- **Volume 3, Figure 3.8.6 Road Link and Road Junction Receptors.**

3.8.1.6 This chapter is supported by the following appendices:

- **Volume 2, Part 3, Appendix 3.8.A, KCC Highways Scoping Meeting;**
- **Volume 2, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels;**
- **Volume 2, Part 3, Appendix 3.8.C, Baseline Traffic Flows;**

- **Volume 2, Part 3, Appendix 3.8.D, Construction Worker Trip Distribution;**
- **Volume 2, Part 3, Appendix 3.8.E, Traffic Flow Diagrams;**
- **Volume 2, Part 3, Appendix 3.8.F, Preliminary Highway Impact Assessment;**
- **Volume 2, Part 3, Appendix 3.8.G, Magnitude of Impact;**
- **Volume 2, Part 3, Appendix 3.8.H, Preliminary Assessments;**
- **Volume 2, Part 1, Appendix 1.4.A, Outline Code of Construction Practice;**
- **Volume 2, Part 1, Appendix 1.4.C, Outline Construction Traffic Management Plan (Kent Onshore Scheme);**
- **Volume 2, Part 1, Appendix 1.4.D, Crossings Schedule; and**
- **Volume 2, Part 1, Appendix 1.4.F, Schedule of Environmental Commitment and Mitigation Measures**.

3.8.2 Regulatory and Planning Context

3.8.2.1 This section sets out the legislation and planning policy that is relevant to the preliminary traffic and transport assessment. A full review of compliance with relevant national and local planning policy will be provided within the Planning Statement that will be submitted as part of the application for Development Consent.

3.8.2.2 Policy generally seeks to minimise traffic and transport effects from development and to avoid significant adverse effects. This applies particularly to considering transport issues at an early stage and proposing mitigation measures to promote sustainable development to avoid unacceptable or severe impacts where necessary.

Legislation

3.8.2.3 There is no transport specific legislation relevant to the Proposed Project.

National Policy

National Policy Statements (July 2011)

3.8.2.4 National Policy Statements (NPSs) set out the primary policy tests against which the application for a Development Consent Order (DCO) for the Proposed Project would be considered. A review of the NPS was announced in the 2020 Energy white paper: Powering our net zero future. This review was to ensure the NPSs were brought up to date to reflect the policies set out in the white paper. The below information reflects these updates currently under consultation.

3.8.2.5 Table 3.8.1 below provides details of the elements of NPS for Energy (EN-1) (Ref. 3.8.1) that are relevant to this chapter, and how and where they are covered in the PEIR or will be covered within the Environmental Statement (ES).

Table 3.8.1: NPS EN-1 (July 2011) requirements relevant to traffic and transport

NPS EN-1 section	Where this is covered in the PEIR
5.13.3 If a project is likely to have significant transport implications, the applicant's ES should include a transport assessment, using the NATA/WebTAG methodology stipulated in Department for Transport guidance, or any successor to such methodology. Applicants should consult the Highways Agency and Highways Authorities as appropriate on the assessment and mitigation.	This PEIR chapter has been prepared using the National Planning Practice Guidance; Travel Plans, Transport Assessments and Statements and includes the components which typically form part of a Transport Assessment (see Section 3.8.4). These details will inform the ES.
5.13.4 Where appropriate, the applicant should prepare a travel plan including demand management measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by public transport, walking and cycling, to reduce the need for parking associated with the proposal and to mitigate transport impacts.	Details of control management measures including those relating to construction staff travel movements are set out within the **Outline Construction Traffic Management Plan** (CTMP) (held in **Volume 2, Part 1, Appendix 1.4.C**). The appropriate Highways Authorities (Kent County Council and National Highways if necessary) will be consulted throughout the ES process.
5.13.5 If additional transport infrastructure is proposed, applicants should discuss with network providers the possibility of co-funding by Government for any third-party benefits. Guidance has been issued in England which explains the circumstances where this may be possible, although the Government cannot guarantee in advance that funding will be available for any given uncommitted scheme at any specified time.	Details relating to how any additional transport infrastructure will be secured/funded will be subject to further discussions with the appropriate Highway Authorities and will subsequently be documented within the ES.
5.13.6 A new energy NSIP may give rise to substantial impacts on the surrounding transport infrastructure and the IPC (Infrastructure Planning Commission) should therefore ensure that the applicant has sought to mitigate these impacts, including during the construction phase of the development. Where the proposed mitigation measures are insufficient to reduce the impact on the transport infrastructure to acceptable levels, the IPC should consider requirements to mitigate adverse impacts on transport networks arising from the	Whilst the Proposed Project is not a new energy generating facility, mitigation measures required to manage or mitigate potential effects of the Proposed Project are reported in Section 3.8.8 of this chapter as well as the **Outline CTMP** (held in **Volume 2, Part 1, Appendix 1.4.C**).

NPS EN-1 section	Where this is covered in the PEIR
development, as set out below. Applicants may also be willing to enter into planning obligations for funding infrastructure and otherwise mitigating adverse impacts.	
5.13.10 Water-borne or rail transport is preferred over road transport at all stages of the project, where cost effective.	Opportunities for utilising water-borne or rail transport will be sought where possible, but only where cost effective and safe. For the purpose of the assessment within this chapter, to provide a worst-case assessment it is assumed that all materials and equipment would be transported by road.
5.13.11 The IPC may attach requirements to a consent where there is likely to be substantial HGV traffic that: - *control numbers of HGV movements to and from the site in a specified period during its construction and possibly on the routing of such movements;* - *make sufficient provision for HGV parking, either on the site or at dedicated facilities elsewhere, to avoid 'overspill' parking on public roads, prolonged queuing on approach roads and uncontrolled on-street HGV parking in normal operating conditions; and* - *ensure satisfactory arrangements for reasonably foreseeable abnormal disruption, in consultation with network providers and the responsible police force.*	Noted, further details on HGV movements, routing, parking and abnormal loads are provided within the **Outline CTMP** (held in **Volume 2, Part 1, Appendix 1.4.C**).

3.8.2.6 The draft version of the Overarching National Policy Statement for Energy (EN-1) published in March 2023 (Ref. 3.8.2) also refers to factors that should be taken into consideration when completing a traffic and transport assessment. However, these remain similar to the adopted version and refers to the Secretary of State as the decision maker rather than the IPC.

3.8.2.7 The draft document includes the following additional elements:

5.14.4 The assessment should also consider any possible disruption to services and infrastructure (such as road, rail and airports).

5.14.9 Where mitigation is needed, possible demand management measures must be considered and if feasible and operationally reasonable, required, before considering requirements for the provision of new inland transport infrastructure to deal with remaining transport impacts.

3.8.2.8 NPS for Electricity Networks Infrastructure (EN-5) (Ref. 3.8.3) applies to electricity networks specifically but provides no further guidance on traffic and transport considerations. The draft version of EN-5 published in March 2023 (Ref. 3.8.4) also does not provide any further guidance on traffic and transport considerations.

National Planning Policy Framework (July 2021)

3.8.2.9 The National Planning Policy Framework (NPPF) (Ref. 3.8.5) sets set out the primary policy tests against which the application for a DCO for the Proposed Project would be considered. Table 3.8.2 below provides details of the elements of the NPPF that are relevant to this chapter, and how and where they are covered in the PEIR or will be covered within the ES.

Table 3.8.2: NPPF requirements relevant to traffic and transport

NPPF section	Where this is covered in the PEIR
Paragraph 104 outlines that 'transport issues should be considered from the earliest of stages of plan-making and development proposals'; this is to ensure that: - *The potential impacts of development on transport networks can be addressed;* - *Opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;* - *Opportunities to promote walking, cycling and public transport use are identified and pursued;* - *The environmental impacts of traffic and transport infrastructure can be identified, assessed and considered – including appropriate opportunities for mitigation and for net gains in environmental quality; and* - *Patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places.*	Transport issues have been considered from an early stage and have informed the design of the Proposed Project (such as defining draft Order Limits or where highway improvements are required to facilitate construction access). Further details over potential transport issues and management measures and mitigation are included in within the Environmental Impact Assessment (EIA) Scoping Report and Section 3.8.8 of this chapter.
Paragraph 110 outlines the key considerations when assessing sites to be allocated for development in plans or specific development applications. These are: - *Appropriate opportunities to promote sustainable transport modes can be (or have been) taken up, given the type of development and its location;* - *Safe and suitable access to the Order limits can be achieved for all users;*	Details of key considerations for traffic and transport including access, capacity/congestion and highway safety are set out within this chapter (Section 3.8.9) as well as the **Outline CTMP** (**Volume 2, Part 1, Appendix 1.4.C**). Mitigation has been identified where

NPPF section	Where this is covered in the PEIR
- *The design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance; and* - *Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.*	necessary (Section 3.8.8) to prevent the Proposed Project from having any significant impacts on the transport network.
Paragraph 111 states that development should only be prevented or refused on highways grounds where there would be an unacceptable impact on highway safety, or the residual cumulative impacts of development on the road network would be severe.	Based on the preliminary assessment carried out within this PEIR chapter, the Proposed Project is not expected to have an unacceptable impact on highway safety or result in any severe residual cumulative impacts on the road network with the proposed mitigation in place. This is demonstrated within Section 3.8.9 of this chapter, as well as within **Volume 1, Part 3, Chapter 14, Inter-Project Cumulative Effects,** and will be assessed further within the ES.
Within this context, paragraph 112 states that applications for development should: - *Give priority first to pedestrian and cycle movements and then, as far as possible, facilitate access to high quality public transport;* - *Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;* - *Create places that are safe, secure and attractive, which minimise the scope for conflicts between pedestrians, cyclists and vehicles;* - *Allow for the efficient delivery of goods, and access by service and emergency vehicles; and* - *Be designed to enable charging of plug-in and other ultra-low emission vehicle in safe, accessible and convenient locations.*	This preliminary environmental assessment presented in this chapter (Section 3.8.9) includes an assessment of severance, pedestrian delay, non-motorised user amenity, fear and intimidation, driver delay, road safety, hazardous/large loads and Public Rights of Way (PRoW) diversions and closures. PRoW and national/regional walking and cycling routes will be managed where required to ensure that these routes remain safe, secure and attractive for pedestrians and cyclists to avoid any conflicts.

NPPF section	Where this is covered in the PEIR
	The proposed access points and internal haul roads have been designed to accommodate construction vehicles (including large goods and servicing vehicles) as well as emergency vehicles. Further details are set out within the **Outline CTMP** held in **Volume 2, Part 1, Appendix 1.4.C.** The proposed car park for construction workers within the site compound will include EV charging facilities to enabling charging of plug-in and other ultra-low emission vehicles.
As outlined in Paragraph 113, all developments that generate significant amounts of movement should be required to provide a Travel Plan, and the application should be supported by a Transport Statement or TA so that the likely impacts of the proposal can be assessed	The Proposed Project is not expected to generate a significant amount of movements during the operational phase and an Operational Travel Plan is not therefore required. However, an **Outline CTMP** is held in **Volume 2, Part 1, Appendix 1.4.C** which includes measures to reduce/ manage construction phase staff movements. This PEIR chapter includes the components which typically form part of a Transport Assessment (see Section 3.8.4). These details will inform the ES.

National Planning Practice Guidance (2014)

3.8.2.10 The Government's National Planning Practice Guidance; Travel Plans, Transport Assessments and Statements (Ref. 3.8.6) provides advice on when a Transport Assessment (TA) or a Transport Statement is required, and what they should contain. The most relevant paragraphs are summarised below:

- Paragraph 002 states that Travel Plans, TAs and Transport Statements are all ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movements;
- Paragraphs 004 and 005 state that TAs should primarily focus on evaluating the potential transport impacts of a development proposal and may propose mitigation measures to promote sustainable development in order to avoid unacceptable or “severe” impacts where necessary;
- Paragraph 006 states that TAs support national planning policy and can positively contribute to encouraging sustainable travel, reducing traffic generation and detrimental impacts, reducing carbon emissions and climate impacts, creating accessible, connected and inclusive communities, improving health outcomes and quality of life, improving road safety and reducing the need for new development to increase existing road capacity of provide new roads;
- Paragraph 007 states that TAs should be established at an early stage and be tailored to local circumstances, as well as proportionate to the size and scope of the proposed development. In addition, they should be brought forward through collaborative ongoing working between the local planning authority/transport authority, transport operators, rail network operators, as well as National Highways where there may be implications for the strategic road network and other relevant bodies; and
- Paragraphs 013 to 015 provide further details of when TAs are required, how the need and scope of a TA should be established and what information should be included.

Local Planning Policy

3.8.2.11 The Kent Onshore Scheme (refer to **Figure 1.1.3 Kent Onshore Scheme Boundary**) lies within the jurisdiction of Kent County Council. County and local planning policy which is relevant to a study of traffic and transport and has informed the assessment of preliminary effects in this chapter are as follows:

- Local Transport Plan 4: Delivering Growth without Gridlock (2016-2031) (Ref. 3.8.7);
- Freight Action Plan Kent (2017) (Ref. 3.8.8);
- Thanet Local Plan (2020) (Ref. 3.8.9);
- Dover District Local Development Framework Core Strategy (2010) (Ref. 3.8.10);
- Thanet District Transport Strategy (2015-2031) (Ref. 3.8.11); and
- Dover Transport Strategy (2017) (Ref. 3.8.12).

Local Transport Plan 4: Delivering Growth without Gridlock (2016-2031)

3.8.2.12 The Local Transport Plan 4 (Ref. 3.8.7) has been updated by Kent County Council (KCC) with an aim to provide a clear vision for the future of transport across the county up to 2031. The document outlines policies and provides a delivery plan to manage and enhance the local transport network; the key aims and strategy include:

- delivery of resilient transport infrastructure which reduces congestion and improves journey time reliability to enable economic growth;
- promote affordable, accessible and connected transport to enable access for all;
- provide a safer road, footway and cycleway network to reduce the likelihood of casualties and encourage other transport providers to improve safety on their networks;
- deliver schemes to reduce the environmental footprint of transport, and enhance the historic and natural environment; and
- provide and promote active travel choices for all members of the community to encourage good health and wellbeing and implement measures to improve local air quality.

3.8.2.13 The Local Transport Plan recognises the NPPF stance on promoting transport systems in favour of sustainable transport modes, however, it also recognises that different policies and solutions will be necessary in different areas.

Freight Action Plan Kent (2017)

3.8.2.14 KCC developed this document with the aim of effectively addressing concerns related to the movement of freight both through and within Kent. The document highlights a number of actions that KCC are looking to achieve in relation to freight movement across the county, these include:

- tackling the problem of overnight lorry parking in Kent;
- finding a long-term solution to Operation Stack;
- effectively managing the routing of HGV traffic to ensure that such movements remain on the strategic road network for as much of the journey as possible;
- taking steps to address problems caused by freight traffic to communities; and
- ensuring that KCC continues to make effective use of planning and development control powers to reduce the impact of freight traffic.

Thanet Local Plan and Dover District Local Development Framework

3.8.2.15 The Kent Onshore Scheme Boundary lies within the boundary of the Thanet Local Plan (Ref. 3.8.9) and the Dover District Local Development Framework (Ref. 3.8.10). Local policies which are relevant to traffic and transport matters and will inform the assessment in the PEIR and ES include are detailed in Table 3.8.3 and Table 3.8.4.

Table 3.8.3: Local Planning Policies relevant to traffic and transport –Thanet Local Plan (adopted 2020)

Thanet Local Plan – Policy	Where this is covered in the PEIR
SP43: Safe and Sustainable Travel The Council will work with developers, transport service providers, and the local community to manage travel demand, by promoting and facilitating walking, cycling and use of public transport as safe	This is not considered to be applicable to this PEIR assessment which assesses the construction and decommissioning phases of

Thanet Local Plan – Policy	Where this is covered in the PEIR
and convenient means of transport. Development applications will be expected to take account of the need to promote safe and sustainable travel. New developments must provide safe and attractive cycling and walking opportunities to reduce the need to travel by car	the Proposed Project, where construction workers will predominantly travel by car. Nevertheless, sustainable travel will be promoted for usage by construction staff travelling to/from the Proposed Project if practicable. Measures relating to construction workers are identified within the **Outline CTMP** (**Volume 2, Part 1, Appendix 1.4.C**).
TP01: Transport assessments and Travel Plans Development proposals which would have significant transport implications shall be supported by a Transport Assessment and where applicable a Travel Plan. These should show how multi-modal access travel options will be achieved, and how transport infrastructure needs arising from the expected demand will be provided.	This PEIR chapter includes the components which typically form part of a Transport Assessment (see Section 3.8.4 for further details) as agreed with KCC Highways. Measures relating to construction workers are identified within the **Outline CTMP** (**Volume 2, Part 1, Appendix 1.4.C**).
TP02: Walking New development will be expected to be designed so as to facilitate safe and convenient movement by pedestrians including people with limited mobility, elderly people and people with young children	This is not considered to be directly applicable to this PEIR assessment which assesses the construction and decommissioning phases of the Proposed Project, where construction workers will predominantly travel by car. However, PRoW diversions will be implemented where necessary to accommodate the works, to ensure that convenient routes remain available to pedestrians and that these can be safely used by physically separating them from the proposed construction routes/works (see the **Outline CTMP** (**Volume 2, Part 1, Appendix 1.4.C**).
TP03: Cycling	The majority of this policy is not considered to be

Thanet Local Plan – Policy	Where this is covered in the PEIR
The Council will seek the provision at the earliest opportunity of a network of cycle routes. Development that would prejudice the safety of existing or implementation of proposed cycle routes will not be permitted. New development will be expected to consider the need for the safety of cyclists and incorporate facilities for cyclists into the design of new and improved roads, junction improvements and traffic management proposals. Substantial development generating travel demand will be expected to provide convenient cycle parking and changing facilities.	applicable to this PEIR assessment which assesses the construction and decommissioning phases of the Proposed Project, where construction workers will predominantly travel by car. The assessment carried out in Section 3.8.9 demonstrates that the Proposed Project is not expected to have an adverse impact on existing cycling routes with the proposed mitigation in place.
TP04: Public Transport Development proposals will be expected to take account of the need to facilitate use of public transport. The Council will seek to approve proposals consisting of or incorporating: 1) improvement of passenger and waiting facilities; 2) measures to improve personal security; 3) improved accessibility for people with mobility limitations; 4) bus/rail interchange facilities; 5) secure cycle storage	This is not considered to be applicable to this PEIR chapter which assesses the construction and decommissioning phases of the Proposed Project, where construction workers will predominantly travel by car. Nevertheless, sustainable travel will be promoted for usage by construction staff travelling to/from the Proposed Project if practicable. Measures relating to construction workers are identified within the **Outline CTMP** (**Volume 2, Part 1, Appendix 1.4.C**).
TP06: Car Parking Proposals for development will be expected to make satisfactory provision for the parking of vehicles, including disabled parking. Suitable levels of provision will be considered in relation to individual proposals taking account of the type of development, location, accessibility, availability of opportunities for public transport, likely accumulation of car parking, design considerations. In considering the level of parking provision in respect of proposals for other development, the Council will have regard to the indicative guidance in Kent Vehicle Parking Standards 2006 (Appendix C), or any subsequent guidance. Where the level of	The Kent Vehicle Parking Standards are not considered to be applicable to the construction phase of the Proposed Project. An appropriate level of car parking provision will be provided for construction workers within the main construction compound to meet the expected level of peak parking demand whilst minimising the risk of 'overspill' parking on the surrounding highway

Thanet Local Plan – Policy	Where this is covered in the PEIR
provision implied in the above guidance would be detrimental to the character of a conservation area or adversely affect the setting of a listed building or ancient monument then a reduced level of provision may be accepted.	network. Further details on parking are provided within the **Outline CTMP** (held in **Volume 2, Part 1, Appendix 1.4.C**).
TP08: Freight and Service Delivery Wherever capacity exists or is capable of being provided, new development proposals will be expected to demonstrate adequate off street servicing	The **Outline CTMP** (held in **Volume 2, Part 1, Appendix 1.4.C**) demonstrates that construction vehicles will be able to serve the Proposed Project with the proposed access points, haul roads, and construction compounds in place.
TP10: Traffic Management Development required to implement traffic management measures designed to realise the best use of the highway network in terms of safety, traffic capacity and environmental conditions will be approved.	The **Outline CTMP** (held in **Volume 2, Part 1, Appendix 1.4.C**) includes measures to be implemented during the construction phase to safely manage construction vehicles travelling to/from the Proposed Project. This PEIR chapter includes an assessment of road safety and driver delay in Section 3.8.9.

Table 3.8.4: Local Planning Policies relevant to traffic and transport – Dover District Local Development Framework – Core Strategy (2010)

Dover District Local Development Framework – Core Strategy Policy	Where this is covered in the PEIR
Core Strategy Policy DM11: Location of Development and Managing Travel Demand Planning applications for development that would increase travel demand should be supported by a systematic assessment to quantify the amount and type of travel likely to be generated and include measures that satisfy demand to maximise walking, cycling and the use of public transport. Development that would generate travel will not be permitted outside the urban boundaries and rural settlement confines unless justified by development plan policies. Development that would generate high levels of travel will only be permitted within the	The forecast construction vehicle trip generation and distribution during the peak construction phase of the Proposed Project are set out in Section 3.8.9, followed by various assessments including those of driver delay and road safety. Measures to maximise walking, cycling and public transport are not considered to be applicable to this PEIR chapter which assesses the

Dover District Local Development Framework – Core Strategy Policy	Where this is covered in the PEIR
urban areas in locations that are, or can be made to be, well served by a range of means of transport.	construction and decommissioning phases of the Proposed Project, where construction workers will predominantly travel by car. Nevertheless, sustainable travel will be promoted for usage by construction staff travelling to/from the Proposed Project if practicable. Measures relating to construction workers are identified within the **Outline CTMP** (**Volume 2, Part 1, Appendix 1.4.C**).
Core Strategy Policy DM12: Road Hierarchy and Development The access arrangements of development proposals will be assessed with regard to the Highway Network set out in the Local Transport Plan for Kent. Planning applications that would involve the construction of a new access or the increased use of an existing access onto a trunk or primary road will not be permitted if there would be a significant increase in the risk of crashes or traffic delays unless the proposals can incorporate measures that provide sufficient mitigation	The **Outline CTMP** (held in **Volume 2, Part 1, Appendix 1.4.C**) provides further details of the proposed assess arrangements including with respect to design, visibility splays and swept paths. An assessment of road safety is set out within Section 3.8.9 of this PEIR assessment, supported by the mitigation identified in Section 3.8.8.
Core Strategy Policy DM13: Parking Provision Provision for parking should be a design led process based upon the characteristics of the site, the locality, the nature of the proposed development and its design objectives. Provision for non-residential development, and for residential cycle provision, should be informed by Kent County Council Guidance SPG4, or any successor. Provision for residential development should be informed by the guidance in the Table for Residential Parking.	The Kent Vehicle Parking Standards (SPG4) are not considered to be applicable to the construction phase of the Proposed Project. An appropriate level of car parking provision will be provided for construction workers within the main construction compound to meet the expected level of peak parking demand whilst minimising the risk of 'overspill' parking on the surrounding highway network. Further details on parking are provided within the **Outline CTMP** (held in **Volume 2, Part 1, Appendix 1.4.C**).

3.8.2.16 The draft version of the Dover District Local Plan (Regulation 19 Submission) published in October 2022 (Ref. 3.8.13) also refers to factors that should be taken into consideration when completing a traffic and transport assessment.

3.8.2.17 The draft document includes the following additional elements:

- TI1 – Sustainable Transport and Travel (considerations relating to sustainable travel, particularly walking and cycling, are provided throughout this chapter);
- TI2 – Transport Statements, Assessments and Travel Plans (this chapter includes the components which typically form part of a Transport Assessment); and
- TI3 – Parking Provision on New Development (details on parking are provided within the **Outline CTMP** held in **Volume 2, Part 1, Appendix 1.4.C**).

Thanet District Transport Strategy (2015-2031)

The Strategy (Ref. 3.8.11) replaces the former Thanet Transport Plan (2005). Its purpose is to provide a framework of transport policy to the year 2031 to support planned growth within the Thanet District. The main objectives of this Transport Strategy are to:

- provide a policy framework for the district which is consistent with existing national and regional policy;
- support delivery managed growth identified within Thanet District Council's emerging local plan;
- identify a package of robust transport improvements and interventions to enable the highway network to effectively accommodate the likely increase in travel demand across the plan period; and
- propose a funding and delivery mechanism for identified interventions and actions.

Dover Transport Strategy (2017)

The Dover Transport Strategy (Ref. 3.8.12) has been prepared in support of, national, regional and local transport policies, with the aims to:

- manage the demand of travel rather than simply accommodate it;
- provide new and improved infrastructure to facilitate growth;
- improve local accessibility and travel choice to join to the town; and
- support economic development and quality of life objectives.

3.8.3 Scoping Opinion and Consultation

Scoping

3.8.3.1 An EIA Scoping Report (Ref. 3.8.14) for the Proposed Project was issued to the Planning Inspectorate (PINS) on 24 October 2022 and a Scoping Opinion (Ref. 3.8.15) was received from the Secretary of State (SoS) on 1 December 2022. Table 3.8.5 sets out the comments raised in the Scoping Opinion and how these have been addressed in this PEIR or otherwise will be addressed within the ES. The Scoping Opinion takes account of responses from prescribed consultees as appropriate.

Table 3.8.5: Comments raised in the Scoping Opinion

ID	Inspectorate's comments	Response
4.7.1	***Traffic and Transport effects – operational and maintenance phase*** The Applicant proposes to scope out transport effects on roads and users associated with the operational phase and maintenance activities on the basis that vehicle movements associated with the operation of the site and maintenance requirements are anticipated to be infrequent and low. The Inspectorate agrees that on this basis, this matter can be scoped out from further assessment. The ES should provide a description of the likely number and type of vehicles required during all phases of development to support this conclusion.	Noted, traffic and transport effects associated with the operational and maintenance phase are scoped out of the assessment. Details of the likely number and type of vehicles required during the operational and maintenance phase of the development are provided in Section 3.8.9. In summary, this is likely to include up to four daily car/LGV trips associated with two staff members who will be on-site or on call at all times for the proposed Minster Converter Station. In addition, there will be monthly substation inspections and annual maintenance visits for Minster Substation and Minster Converter Station and overhead HVAC connection, which would be carried out by LGVs and potentially HGVs on rare occasions where equipment needs to be replaced.
4.7.2	***Hazardous loads – operational and maintenance phase*** The Applicant proposes to scope out impacts from hazardous and dangerous loads during the operational and maintenance phase on the basis that few hazardous loads are anticipated. The Inspectorate agrees to scope this matter	Noted, hazardous loads during the operational and maintenance phase is scoped out of the assessment, as HGVs (including any hazardous/large loads) are expected to rarely access the

ID	Inspectorate's comments	Response
	out but would expect the ES to provide a reasoned justification as to why such loads are likely to be infrequent during the operation and maintenance phase.	site during this phase (see Section 3.8.4).
4.7.3	***Driver delay on PRoW and National/regional walking and cycling routes – construction and decommissioning*** The Inspectorate agrees to scope this matter out on the basis that PRoW and national and regional walking and cycling routes are not utilised by drivers limiting the impact pathway.	Noted, driver delay on PRoW and national/regional walking and cycling routes are scoped out of the assessment.
4.7.4	***Decline in road safety on PRoW and national/regional walking and cycling routes – construction and decommissioning*** The Inspectorate agrees to scope this matter out on the basis that PRoW and national and regional walking and cycling routes are not utilised by drivers limiting the impact pathway.	Noted, decline in road safety on PRoW and national/regional walking and cycling routes are scoped out of the assessment.
4.7.5	***Additional hazardous loads on PRoW and national/regional walking and cycling routes – construction and decommissioning*** The Inspectorate agrees to scope this matter out on the basis that PRoW and national and regional walking and cycling routes are not utilised by drivers limiting the impact pathway.	Noted, additional hazardous loads on PRoW and national/regional walking and cycling routes are scoped out of the assessment.
4.7.6	***PRoW diversions or closures on road links, road junctions and national/regional walking and cycling routes – construction and decommissioning*** The Inspectorate agrees that significant effects on road links, road junctions and national/regional walking and cycling routes as a result of closures or diversions of PRoW during construction and decommissioning are unlikely and this matter can be scoped out.	Noted, PRoW diversions or closures on road links, road junctions and national/regional walking and cycling routes are scoped out of the assessment.
4.7.7	***Study area*** Whilst it is acknowledged that the study area is yet to be confirmed, this should be	Noted. The study area has now been agreed with KCC Highways, based on the

ID	Inspectorate's comments	Response
	informed by the extent of the affected road network.	extent of the affected road network.

3.8.3.2 In terms of feedback received from National Highways, the following comment was made with respect to the Kent Onshore Scheme:

We appreciate the scheme is at an early stage of design and construction is some way off. We will need to agree how and where cables cross our network, you will also need to assess construction traffic impact upon the network and if necessary, mitigate, at this stage it is difficult to comment other than in broad principals as it will depend on where, when and how much traffic is generated by the construction activity.

3.8.3.3 The A2 represents the nearest section of National Highways' network to the Proposed Project, located approximately 20 km (route distance) to the south of the proposed main site access on the A256 (K-BM02) and approximately 25 km (route distance) to the west of this access via the A299, A253 and A28. Therefore, the Proposed Project is not expected to result in any adverse impacts on National Highways' network which falls a considerable distance outside of the traffic and transport study area.

3.8.3.4 The proposed assessment methodology set out in Section 3.8.4 has been developed further since the EIA Scoping Report was prepared, to inform the preliminary assessment within this chapter through discussions with the local highway authorities and updated IEMA guidance. Further details of these changes are identified in Section 3.8.4.

Consultation and Project Engagement

3.8.3.5 Following the feedback received in the Scoping Opinion (Ref. 3.8.15), a transport scoping meeting was held with KCC Highways on 12 April 2023 to provide the local highway authority with a project update and to agree the scope of this Traffic and Transport chapter and the approach for the supporting deliverables. The presentation which informed the meeting and the resultant meeting minutes are held in **Volume 3, Part 3, Appendix 3.8.A KCC Highways Scoping Meeting**. A summary of the key points raised including how these have been addressed is set out in Table 3.8.6.

Table 3.8.6: Key topics discussed during KCC highways scoping meeting

Topic	KCC feedback	Response
Car sharing	Further evidence should be provided in support of the proposed car occupancy figure for construction staff	Following KCC's feedback, the proposed car occupancy figure for construction staff has been reduced from 2.0 to 1.5 for robustness. A formal Car Share Scheme will be implemented to match potential sharers. Further details are provided in Section 3.8.9

Topic	KCC feedback	Response
Assessment Year	The assessment year of 2029 is agreed (although this should be updated if the project schedule changes)	The peak construction phase (2029) has been assessed in this chapter
Study area	The assessment should focus on the A256 corridor and the study area may also need to be extended along the A299 as far as Monkton Roundabout.	The study area includes the A256 corridor and has been expanded along the A299 as far as the Monkton Roundabout as detailed in Section 3.8.6
CTMP	A CTMP should be prepared to consider working hours, arrival/departure times, vehicle routing, traffic management, site parking, measures to minimise impacts during network peaks, use of banksmen to facilitate safe delivery, wheel washing facilities etc.	An **Outline CTMP** has been prepared, which is held in **Volume 2, Part 1, Appendix 1.4.C**.
Assessment periods	The shoulder peaks should be considered in the assessment, as well as the site Saturday PM peak	These shoulder peaks have been considered along with the network peaks, as set out in Section 3.8.9. An assessment of the Saturday PM peak will be carried out within the ES, in the absence of Saturday baseline information within this chapter.
Construction vehicle routing	HGVs should avoid secondary access routes where possible, depending on likely vehicle types and volumes.	HGVs will use strategic routes and avoid secondary access routes (mainly to be used by LGVs) where possible, see the HGV Routing Plan in **Figure 3.8.2 HGV Routing Plan**.
	HGV distributions should be based on anticipated points of origin. U-turning movements should be considered at the Ebbsfleet Roundabout.	The HGV distribution has been updated following KCC's feedback. The distribution of construction vehicles reflect the left in/left out nature of the proposed site access on the A256 dual carriageway and include u-turning movements at the

Topic	KCC feedback	Response
		Sevenscore roundabout for vehicles departing to the south and at the Ebbsfleet roundabout for vehicles arriving from the north (see Section 3.8.4)
Abnormal loads	Further details are needed on Abnormal Indivisible Loads (AILs) including consultation on any Temporary Traffic Management (TTM) arrangements and the potential impact of AILs at the Ebbsfleet Roundabout	Further details on AILs are provided within the **Outline CTMP**, which is held in **Volume 2, Part 1, Appendix 1.4.C**.
PRoW	The Outline PRoW Management Plan is broadly acceptable. Further details are required on where the PRoW network intersects or adjoins on and off-site access routes. A number of PRoW will need to be assessed and mitigated. These matters should be addressed prior to DCO submission.	Further details on PRoW mitigation and the assessment of PRoW are provided in Sections 3.8.8 and 3.8.9 respectively. Details on PRoW mitigation are also included within the **Outline CTMP**, held in **Volume 2, Part 1, Appendix 1.4.C**. An Outline PRoW Management Plan will be prepared in support of the ES
TA	The TA can be incorporated within the PEIR, assuming that the assessment methodologies follow TA guidelines	The components which traditionally inform the assessment work of the TA are set out in various sections within this chapter (see Section 3.8.4 for further details)
Condition Surveys	Highway and PRoW condition surveys should be undertaken prior to commencement, post-completion and at suitable intervals, along with a commitment to repair any damage to the fabric of the Highway (including verge) or PRoW. Routine monitoring should be carried out for any impacted routes, with regular highway cleaning/sweeping if necessary.	These requirements have been considered within the **Outline CTMP** held in **Volume 2, Part 1, Appendix 1.4.C**.
Cumulative Schemes	Cumulative schemes are subject to change. There are allocated sites not on the list that are committed and will impact the A256 corridor, including	Noted, a separate meeting was held with KCC on 12 July 2023 to review cumulative schemes.

Topic	KCC feedback	Response
	Manston Green, Spitfire Green and Westwood Village. A separate scoping discussion should be held to review cumulative schemes and the proposed programming of any highway works.	Further details on inter-project cumulative effects are set out in **Volume 1, Part 3, Chapter 14, Kent Onshore Scheme Inter-Project Cumulative Effects**. Consideration will be given to additional cumulative schemes at ES stage.
Accesses	Each proposed access would need to be subject to a road safety Audit. The main site access on the A256 (K-BM02) should be accompanied by a Statement of Compliance with DMRB standards.	Noted, the Applicant will contact KCC Highways to determine the approach for undertaking the Stage 1 road safety Audit (RSA) for the proposed access points. Further details will be provided within the **Outline CTMP** (held in **Volume 2, Part 1, Appendix 1.4.C**) once the Stage 1 RSA has been undertaken.
Cable routing	In terms of the routing of cabling under the A256 and SSSI, the Applicant should consult with our Asset Management Team for the A256 and Sustrans for the NCN15 Coastal Path.	Noted, the Applicant will carry out additional consultation with respect to the cable routing, the A256 and the NCN15 Coastal Path.

3.8.4 Approach and Methodology

3.8.4.1 **Volume 1, Part 1, Chapter 5, PEIR Approach and Methodology** sets out the overarching approach which has been used in developing the preliminary environmental information. This section describes the technical methods used to determine the baseline conditions, sensitivity of the receptors and magnitude of effects and sets out the significance criteria that have been used for the preliminary traffic and transport assessment.

Guidance Specific to the Traffic and Transport Assessment

3.8.4.2 The preliminary traffic and transport assessment has been carried out in accordance with the following good practice guidance documents:

- Government's National Planning Practice Guidance; Travel Plans, Transport Assessments and Statements (Ref. 3.8.4);

- The Institute of Environmental Management and Assessment (IEMA) Guidelines for the Environmental Assessment of Road Traffic (Ref. 3.8.16), which provides guidance on examining the environmental impacts of developments in terms of traffic and transportation and was adopted at the time of the EIA Scoping Report (Ref. 3.8.14); and
- The recently adopted (July 2023) IEMA Guidelines for the Environmental Assessment of Traffic and Movement (Ref. 3.8.17), which provides an update to the above and has been referenced where appropriate.

Baseline Data Gathering and Forecasting Methods

3.8.4.3 The traffic and transport baseline environment conditions described in Section 3.8.7 have been informed by the following data sources and site surveys:

- Baseline traffic data obtained for the surrounding highway network, based on Department for Transport (DfT) traffic counts (Ref. 3.8.18) where available (see **Figure 3.8.6 Road Link and Road Junction Receptors** for the locations of these counts);
- Traffic growth calculated using National Road Traffic Forecast (NRTF) growth factors, with National Transport Model (NTM) adjustments applied within the Trip Ends Model Program (TEMPro) (Ref. 3.8.19) utilising National Trip Ends Model (NTEM) dataset v7.2;
- Personal Injury Accident (PIA) data from CrashMap (Ref. 3.8.20) which contains official data published by the DfT for the agreed study area shown on **Figure 3.8.1 Traffic and Transport Study Area in Kent**;
- Ordnance Survey (OS) Base Mapping to ascertain an accurate geographical representation of the areas in the vicinity of the Proposed Project;
- Local travel and network information gathered from various online sources including local public transport operators, PRoW and promoted recreational routes (Ref. 3.8.21);
- For cumulative schemes, planning application documents on the PINS Examination Library for Manston Airport (Ref. 3.8.22 and Ref. 3.8.23) and the Thanet District Council planning portal for Land at Canterbury Road West (Ref. 3.8.24 and Ref. 3.8.25), which has informed **Volume 1, Part 3, Chapter 14, Kent Onshore Scheme Inter-Project Cumulative Effects**;
- As presented to KCC Highways at scoping (see **Volume 2, Part 3, Appendix 3.8.A KCC Highways Scoping Meeting**), the construction staff distribution (see **Volume 2, Part 3, Appendix 3.8.D Construction Worker Trip Distribution**) has been informed by 2021 Census data (TS060 – Industry dataset) (Ref. 3.8.26) based on the number of existing residents who live within a 60-minute catchment of the site and work within the construction industry. Whilst it is acknowledged that the dataset was collected during the COVID-19 pandemic, this represents the latest information currently available and is considered to be appropriate for informing the likely distribution of construction workers (as opposed to using information from the 2011 Census); and
- Route planning software, such as Google Maps (Ref. 3.8.27), used to inform the review of the most direct and functional routes to the Proposed Project (in combination with the above).

Assessment Criteria

3.8.4.4 In accordance with the 2023 IEMA Guidelines for the Environmental Assessment of Traffic and Movement (Ref. 3.8.17), the following criteria has been considered in this assessment:

- Severance of communities;
- Pedestrian delay (incorporating delay to all non-motorised users);
- Non-motorised user amenity;
- Fear and intimidation on and by road users;
- Road vehicle driver and passenger delay;
- Road user and pedestrian safety; and
- Hazardous/large loads.

3.8.4.5 In addition, the following criteria has been considered in this assessment:

- PRoW diversions and closures.

3.8.4.6 The 2023 IEMA guidelines set out two rules in identifying potential links for analysis:

- Rule 1: include highway links where traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%); and
- Rule 2: include any other specifically sensitive areas (e.g. accident black spots, conservation areas, hospitals, links with high pedestrian flows etc.) where traffic flows have increased by 10% or more.

3.8.4.7 Based on this, links and junctions have been assessed where traffic flows are expected to increase by 30% or more as a result of the Kent Onshore Scheme. Links and junctions have not been assessed where there is expected to be a less than 30% increase in traffic flows as a result of the Kent Onshore Scheme, unless any specifically sensitive areas are identified. In addition, a negligible magnitude of change has been assigned where there is expected to be fewer than 30 additional vehicle trips per hour during each of the development peak hours as a result of the Kent Onshore Scheme, irrespective of the proportional increase in traffic flows.

3.8.4.8 In addition to the above, potential traffic-related effects have also been considered by other topics, including (and not limited to) the following examples:

- Potential effects of construction traffic on sites of ecological and nature conservation value are considered in **Volume 1, Part 3, Chapter 3, Ecology and Biodiversity**;
- Potential effects of construction traffic on air quality are considered in **Volume 1, Part 3, Chapter 9, Air Quality**;
- Potential effects of construction traffic on noise and vibration are considered in **Volume 1, Part 3, Chapter 10 Noise and Vibration**; and
- Potential effects of construction traffic on tourists, visitor attractions and other businesses are considered in **Volume 1, Part 3, Chapter 11, Socio-economics, Recreation and Tourism**.

3.8.4.9 The type of traffic which is anticipated to be generated by the Kent Onshore Scheme has been categorised as follows: primarily general traffic, LGVs, HGVs and Abnormal Indivisible Loads (AILs). The vehicle routing and movements associated with the Project's construction have been considered and discussed through consultation with KCC.

3.8.4.10 The receptors which may be impacted upon have been identified based on the locations and volumes of the proposed construction traffic i.e. the forecast increase in vehicle movements. This has been completed by identifying the percentage increases in vehicular activity along the identified construction routes when compared to DfT baseline traffic count data (factored up to the future baseline year of 2029) for road links within the traffic and transport study area.

3.8.4.11 Typically, when assessing the impacts of traffic effects, there are a range of particular groups and locations which may be sensitive to changes in traffic conditions compliant with the criteria previously outlined.

3.8.4.12 These are outlined in the 2023 IEMA Guidance as 'Affected Parties', as follows:

- People at home;
- People at work;
- Sensitive and/or vulnerable groups (including young age, older age, income, health status, social disadvantage and access and geographic factors);
- Locations with concentrations of vulnerable users (e.g. hospitals, places of worship and schools);
- Retail areas;
- Recreational areas;
- Tourist attractions;
- Collisions clusters and routes with road safety concerns; and
- Junctions and highway links at (or over) capacity.

3.8.4.13 As a general rule of thumb, the forecast changes to baseline (magnitude of change), the relative value/sensitivity/importance of the affected receptor and the scale, nature and significance of the effect (consequence) should be considered. In addition, the anticipated effect should be classified as short-term, medium-term or long-term, as well as permanent or temporary.

3.8.4.14 To calculate the trip distribution of workers travelling to and from the proposed construction compounds each day, a simple gravity model has been developed based on 2021 Census data (representing the latest information currently available) for construction workers living within a 60-minute catchment area of the site. Construction traffic associated with the Kent Onshore Scheme has been distributed onto the local highway network to calculate the resultant percentage increases on each link.

3.8.4.15 Assessments have been undertaken at the peak period of construction (as agreed with KCC), which represents 2029 based on forecast construction traffic movements.

3.8.4.16 Baseline traffic flows have been factored up to the identified peak year of construction (2029) by adopting growth factors derived from TEMPro v7.2 (Ref. 3.8.19) for the relevant areas impacted by the Kent Onshore Scheme. Meanwhile, the peak construction traffic flows have been derived by analysing construction traffic data and construction programmes provided by Design Engineers.

Sensitivity

3.8.4.17 The general criteria for defining the importance or sensitivity of receptors are set out in Table 3.8.7, which applies to the assessment of severance, Pedestrian Delay, non-motorised user amenity, and fear and intimidation. Key factors influencing this include:

- the value of the receptor or resource based upon empirical and/or intrinsic factors, for example considering any legal or policy protection afforded which is indicative of the receptor or resources' value internationally, nationally or locally; and
- the sensitivity of the receptor or resource to change, for example is the receptor likely to acclimatise to the change. This will consider legal and policy thresholds which are indicative of the ability of the resources to absorb change.

Table 3.8.7: Categorising the overall sensitivity of receptors (severance, pedestrian delay, non-motorised user amenity, and fear and intimidation)

Receptor sensitivity	Receptor examples
Very High	Road links and junctions: More than two sensitive users present (e.g. schools, play areas, care/retirement homes, disabled parking bays, hospitals, places of worship, historic buildings) Walk/Cycle Links including PRoW: Heavily trafficked highway with on-road pedestrian/cycle route
High	Road links and junctions: Two sensitive users present (e.g. schools, play areas, care/retirement homes, disabled parking bays, hospitals, places of worship, historic buildings) Walk/Cycle Links including PRoW: Lightly trafficked highway with on-road pedestrian/cycle route
Medium	Road links and junctions (at least one of the following): - One sensitive user present (e.g. schools, play areas, care/retirement homes, disabled parking bays, hospitals, places of worship, historic buildings) - Many residential properties with direct frontage to highway link being used as construction route - Pedestrians using footways, PRoW and/or crossings on highway link - Cyclists using on-road designated cycle routes along highway link

Receptor sensitivity	Receptor examples
	Walk/Cycle Links including PRoW: Heavily trafficked highway with off-road pedestrian/cycle route
Low	Road links and junctions (at least one of the following): - Few residential properties with direct frontage to the highway link being used as a construction traffic route - Workplaces with direct frontage to highway link being used as construction route - Cyclists using off-road designated cycle routes along highway link Walk/Cycle Links including PRoW: Lightly trafficked highway with off-road pedestrian/cycle route
Negligible	Road links and junctions: No receptors along link Walk/Cycle Links including PRoW: Pedestrian/cycle route not running alongside highway

3.8.4.18 The preliminary criteria for defining the importance or sensitivity of road link and road junction receptors for the assessment of driver delay are set out in Table 3.8.8. This has been determined in the absence of any junction capacity assessment information or queue length data. Therefore, the sensitivity criteria will be reviewed for the ES when further baseline traffic count data becomes available, in consultation with KCC Highways.

Table 3.8.8: Categorising the overall sensitivity of receptors (driver delay)

Receptor sensitivity	Receptor examples
Very High	Road links: Not applicable at this stage Road junctions: Roundabout or signalised junction (at least four arms) within a built-up area
High	Road links: Local route within a built-up area Road junctions: Roundabout or signalised junction (at least four arms) outside of a built-up area
Medium	Road links: Strategic route within a built-up area OR a local route outside of a built-up area Road junctions: Roundabout or signalised junction (fewer than four arms) outside of a built-up area OR a priority junction within a built-up area
Low	Road links: Strategic route outside of a built-up area OR a local no-through route

Receptor sensitivity	Receptor examples
	Road junctions: Priority junction outside of a built-up area
Negligible	Road links: Not applicable at this stage (worst-case)
	Road junctions: Not applicable at this stage (worst-case)

3.8.4.19 The preliminary criteria for defining the importance or sensitivity of road link and road junction receptors for the assessment of road safety are set out in Table 3.8.9. The collision rate for road links has also been calculated and compared with national road safety statistics provided within Road Casualties for Great Britain (Ref. 3.8.28) to determine an appropriate receptor sensitivity level. This criteria has been determined in the absence of full Personal Injury Accident (PIA) data and will therefore be reviewed in the ES when full PIA data becomes available, in consultation with KCC Highways.

Table 3.8.9: Categorising the overall sensitivity of receptors (road safety)

Receptor sensitivity*	Receptor examples
Very High	Road links and road junctions: 10+ collisions in five years, or more than four serious or two fatal collisions
High	Road links and road junctions: 7-9 collisions (with up to four serious collisions and one fatal collision) in five years
Medium	Road links and road junctions: 5-6 collisions (with up to two serious collisions and one fatal collision) in five years
Low	Road links and road junctions: 3-4 collisions in five years (with up to one serious collision and no fatal collisions) in five years
Negligible	Road links and road junctions: Fewer than three collisions (with no serious or fatal collisions) in five years

*subject to a comparison of the collision rate with national road safety statistics (for road links)

3.8.4.20 The preliminary criteria for defining the importance or sensitivity of road link and road junction receptors for the assessment of hazardous/large loads are set out in Table 3.8.10. As above, the receptor sensitivity level for road links also considers the collision rate in comparison with national road safety statistics. This criteria has been determined in the absence of full PIA data and will therefore be reviewed at ES stage when full PIA data becomes available, in consultation with KCC Highways.

Table 3.8.10: Categorising the overall sensitivity of receptors (hazardous/large loads)

Receptor sensitivity*	Receptor examples
Very High	Road links and road junctions: More than five serious and/or two fatal collisions involving goods vehicle(s) in five years
High	Road links and road junctions: 4-5 serious collisions and/or two fatal collisions involving goods vehicle(s) in five years
Medium	Road links and road junctions: 2-3 serious collisions and/or one fatal collision involving goods vehicle(s) in five years
Low	Road links and road junctions: One serious collision involving goods vehicle(s) in five years
Negligible	Road links and road junctions: No serious or fatal collisions involving goods vehicle(s) in five years

*subject to a comparison of the collision rate with national road safety statistics (for road links)

3.8.4.21 The preliminary criteria for defining the importance or sensitivity of PRoW receptors for the assessment of PRoW diversions and closures are set out in Table 3.8.11. This criteria will be reviewed at ES in consultation with KCC Highways.

Table 3.8.11: Categorising the overall sensitivity of receptors (PRoW diversions and closures)

Receptor sensitivity	Receptor examples
Very High	Main route of excellent quality expected to be well used
High	Main route of good quality, expected to be fairly well used, with no alternative route(s) available
Medium	Main route of good quality, expected to be fairly well used, with alternative route(s) available OR a minor route of mixed quality, expected to be lightly used, with no alternative route(s) available
Low	Minor route of mixed quality, expected to be lightly used, with alternative route(s) available
Negligible	Poor quality route which appears to be inaccessible, out of use or rarely used

3.8.4.22 The levels of sensitivity which have been attributed to the receptors identified in Section 3.8.6 based on the information presented above are summarised in Section 3.8.7 and within **Volume 2, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**.

3.8.4.23 An assessment of the railway network has been scoped out from this Traffic and Transport chapter given that trenchless methods will be employed when installing cables to avoid any potential impacts on the railway (both London-Dover and London-Ramsgate lines), and that the use of any existing level crossings by construction vehicles, including the existing level crossing located approximately 900m southeast of Minster station, will be managed to ensure operational rail and road user safety.

Magnitude

3.8.4.24 As identified within the 2023 IEMA guidelines, the magnitude of each impact represents the level of change from the baseline conditions.

3.8.4.25 This assessment considers a range of potential effects that could be experienced during the construction stage of the Kent Onshore Scheme and this section identifies how magnitude will be considered for each.

3.8.4.26 **Severance** is defined in the IEMA guidelines as the *"perceived division that can occur within a community when it becomes separated by major traffic infrastructure. The term is used to describe a complex series of factors that separate people from places and other people. Severance may result from the difficulty of crossing a heavily trafficked road or a physical barrier created by infrastructure"*. The guidelines state that changes in traffic flow of 30%, 60% and 90% are regarded as producing 'slight', 'moderate' and 'substantial' changes in severance respectively. However, caution should be observed when applying these thresholds to very low baseline flows which are unlikely to experience severance impacts even with high percentage changes in traffic.

3.8.4.27 **Pedestrian delay** (incorporating delay to all non-motorised users) is considered to be affected by the changes in volume, composition or speed of traffic, in terms of their respective impacts on the ability of pedestrians to cross roads. The assessment of pedestrian delay serves as a proxy for the delay that other modes of non-motorised users may experience when crossing roads. In general, increases in traffic levels and/or traffic speeds are likely to lead to greater increases in pedestrian delay.

3.8.4.28 **Non-motorised user amenity** is broadly defined as *"the relative pleasantness of a journey, and is considered to be affected by traffic flow, traffic composition and pavement width/separation from traffic"*. The guidance suggests that a tentative threshold for judging the significance of changes in non-motorised user amenity would be where the traffic flow (or HGV component) is halved or doubled.

3.8.4.29 **Fear and intimidation** occurs through a combination of traffic flow, speed, proportion of HGVs and the proximity of traffic to people. These indicators are often heightened by a perceived lack of protection or buffers from the highway or through narrow or non-existent footways. The assessment considers each road on a case-by-case basis, however there are thresholds provided in the 2023 IEMA guidelines which are presented in Table 3.8.13.

3.8.4.30 **Driver delay** is an effect cited in the 2023 IEMA guidance and relates to incremental increases in traffic (as outlined in Table 3.8.12). However, traffic delays are only likely to be significant when the traffic on the network surrounding the development is already at, or close to, the capacity of the system. As a further consideration, where any temporary road closures or traffic management is likely to be in place to enable the construction of the Kent Onshore Scheme, any additional potential delay caused by these resultant diversion routes has been reported.

3.8.4.31 **Road safety** considers Personal Injury Accident (PIA) data obtained for the most recent five-year period available at junctions and links along the proposed construction traffic routes. The sensitivity of discrete areas of the highway network can then be determined following a detailed review of the baseline characteristics including the collision rate and any collision clusters. This has been used to assess whether the additional traffic during construction of the Kent Onshore Scheme would be likely to have a detrimental effect on road safety.

3.8.4.32 **PRoW diversions and closures** have been considered on the basis of the type of impact i.e. whether a temporary or permanent PRoW closure or diversion is proposed, and how long any potential disruption to an existing route would therefore occur for. The assessment considers the indicative thresholds presented in Table 3.8.14 below which have been derived based on professional experience.

3.8.4.33 With regard to **hazardous/large loads**, the guidance states that the transportation of dangerous or hazardous loads by road should be recognised including specialist loads that might be involved in the construction or decommissioning phases of the development. Where the number of movements is considered to be significant, risk or catastrophe analysis should be carried out to illustrate the potential for an accident and the likely effect of such an effect. Appropriate routes for abnormal load movements should be considered, with mitigation strategies to secure safe passage. There will be a requirement to transport gas and oil during the Proposed Project (particularly during the construction and decommissioning phases) which are categorised as Hazardous Loads. There will also be the requirement for abnormal loads which are categorised as Large Loads.

3.8.4.34 In view of the above, the impacts of hazardous/large loads have been considered, in the form of a qualitative risk assessment to establish the likelihood and extent of such effects. The projected impacts of the Kent Onshore Scheme will be measured separately, dependent upon the receptor, for the construction and decommissioning periods. The **Outline CTMP**, provided in **Volume 2, Part 1, Appendix 1.4.C** includes details of measures that will be employed to ensure the safe vehicular transport of components to and from the Kent Onshore Scheme.

3.8.4.35 Table 3.8.12, Table 3.8.13 and Table 3.8.14 summarise the criteria that have been used to assess the magnitude of effect (based on increases i.e. ‘adverse’ effects), along with the thresholds that have been used to determine whether effects are considered large, medium, small or negligible. Depending on the baseline information available, the various thresholds identified for the proportional increases in traffic flow relate to peak hour flows and daily flows (whichever is highest). Within these tables, neither the sensitivity of receptors, nor the duration of effects, is taken into consideration. These tables are formed using 2023 IEMA Guidelines and professional experience.

3.8.4.36 In terms of magnitude of change for road links and junctions, a negligible magnitude of change has been assigned where there is expected to be fewer than 30 additional vehicle trips per hour during each of the development peak hours as a result of the Kent Onshore Scheme, irrespective of the proportional increase in traffic flows.

Table 3.8.12: Categorising the overall magnitude of effect of a road link and junction

Impact	Negligible	Small	Medium	Large
Severance	Increase in total traffic	Increase in total traffic	Increase in total traffic	Increase in total traffic

Impact	Negligible	Small	Medium	Large
	flows of under 30% (or increase in HGV flows under 10%).	flows of 30-59% (or increase in HGV flows of between 10%-39%).	flows of 60%-89% (or increase in HGV flows between 40%-89%).	flows or HGV flows of 90% and above.
Pedestrian Delay	The severity of the impact will be determined based on the thresholds identified above for severance.			
Non-motorised user amenity	Increase in total traffic flows of under 50%.	Increase in total traffic flows of 50-69%.	Increase in total traffic flows of 70%-99%.	Increase in total traffic flows of 100% or above.
Fear and intimidation	No change in overall level based on the degree of hazard scores for daily traffic flows, HGV flows and vehicle speeds (see Table 3.8.13 below).	One step change in overall level (see Table 3.8.13 below), but with <400 daily vehicle increase or <500 daily HGV increase.	One step change in overall level (see Table 3.8.13below), but with >400 daily vehicle increase or >500 daily HGV increase.	Two step changes in overall level based on the degree of hazard scores for daily traffic flows, HGV flows and vehicle speeds (see Table 3.8.13 below).
Driver delay	Increase in total traffic flow of under 30%.	Increase in total traffic flow of between 30% and 59%.	Increase in total traffic flow of between 60% and 89%.	Increase in traffic flow of 90% and above.
Road safety	Increase in total traffic flows of under 30% (or increase in HGV flows of under 10%).	All links estimated to experience increases in total traffic flows of at least 30% or increases in HGV flows of at least 10% are analysed further on a case by case basis.		
Hazardous/large loads	Based on the probability of a personal injury accident, categorised as fatal or serious, involving a hazardous/large load, occurring.			

3.8.4.37 Further details relating to fear and intimidation, in terms of calculating magnitude of impact based on the 2023 IEMA guidelines, are provided in Table 3.8.13 below.

Table 3.8.13: Categorising the overall magnitude for fear and intimidation

Criteria	Degree of hazard (score)			
	Small	Moderate	Great	Extreme
A) Average Hourly Traffic Flow	<600 (0)	600-1,200 (10)	1,200-1,800 (20)	>1,800 (30)
B) Daily HGV Flow	<1,000 (0)	1,000-2,000 (10)	2,000-3,000 (20)	>3,000 (30)
C) Average Speed	<20mph (0)	20-30mph (10)	30-40mph (20)	>40mph (30)
Total Score (A+B+C)	0-20	21-40	41-70	71+

3.8.4.38 Magnitude of change with respect to severance, Pedestrian Delay, non-motorised user amenity, and fear and intimidation across PRoW receptors and national/regional walking and cycling routes has been categorised as follows based on professional experience (and further to the information presented within the EIA Scoping Report):

- Negligible: Up to one temporary localised diversion to accommodate cable installation works or one construction route crossing point during the works;
- Small: Two temporary localised diversions (cable installation works) and/or construction route crossing points (inclusive) or one temporary diversion to accommodate the construction route (haul road);
- Medium: Three temporary localised diversions (cable installation works) and/or construction route crossing points (inclusive);
- Large: Four or more temporary localised diversions (cable installation works) and/or construction route crossing points (inclusive); and
- Large (severance and pedestrian delay only): A long-term closure/diversion.

3.8.4.39 In terms of PRoW diversions and closures, the following thresholds are proposed to identify magnitude of effect based on professional experience.

Table 3.8.14: Categorising the overall magnitude of effect of a PRoW diversion and/or closure

Impact	Negligible	Small	Medium	Large
PRoW diversions and closures	A temporary PRoW diversion (no closure) with either no increase in pedestrian journey length or an increase in pedestrian	A temporary PRoW diversion (no closure) with an increase in pedestrian journey length for one to four weeks.	A short term PRoW closure (for less than four weeks in any 12 month period) without a diversion route; OR	A short term PRoW closure (for more than four weeks in any 12 month period) without a diversion route, or a long-term PRoW closure/diversion.

Impact	Negligible	Small	Medium	Large
	journey length for one to five days.		A temporary PRoW diversion (no closure) with an increase in pedestrian journey length for more than four weeks.	

3.8.4.40 Table 3.8.12, Table 3.8.13 and Table 3.8.14 above set out the proposed magnitude thresholds for the respective environmental effects that are considered in this assessment. With the exception of PRoW diversion and closure effects, all effects have a proposed magnitude that does not, initially, consider the duration over which an effect is likely to be experienced.

3.8.4.41 As identified within DMRB LA 104 (Ref. 3.8.29), duration (long or short term), permanence (permanent or temporary) and reversibility should be considered when assessing the overall significance of residual effects.

3.8.4.42 All of the traffic and transport effects associated with the construction and decommissioning of the Kent Onshore Scheme would be temporary effects. Some temporary effects would be likely to last longer than others and these have therefore been reported where necessary. Following the quantitative assessment, residual effects have been reported by taking into account professional experience on the duration over which effects are likely to be experienced.

Significance of effects

3.8.4.43 As set out in **Volume 1, Part 1, Chapter 5, PEIR Approach and Methodology** the general approach taken to determining the significance of effect in this preliminary assessment is only to state whether effects are likely or unlikely to be significant, rather than assigning significance levels.

3.8.4.44 The significance of effect is determined through consideration of two elements; the magnitude of the impact and the sensitivity of the receptor as outlined above. Table 3.8.15 below shows the matrix that has been used to determine the effect category. Effects which are classified as **major** or **moderate** are considered to be significant (shown in **bold**).

Table 3.8.15: Significance matrix

Magnitude of effect	Receptor sensitivity				
	Very High	High	Medium	Low	Negligible
Large	**Major**	**Major/ Moderate**	**Major/ Moderate/** Minor	**Moderate**/ Minor	Minor/ Negligible

Magnitude of effect	Receptor sensitivity				
	Very High	High	Medium	Low	Negligible
Medium	**Major/ Moderate**	**Major/ Moderate**	**Moderate**/ Minor	Minor/ Negligible	Negligible
Small	**Major/ Moderate/** Minor	**Moderate**/ Minor	**Moderate**/ Minor	Minor/ Negligible	Negligible
Negligible	Minor/ Negligible	Minor/ Negligible	Minor/ Negligible	Negligible	Negligible

Assumptions and Limitations

3.8.4.45 The scope of assessment within this PEIR chapter is set out within Table 3.8.7of the EIA Scoping Report (Ref. 3.8.14), based on the potential sources and impacts and potential impact pathways with receptors presented in Tables 3.8.1 and 3.8.2 of the EIA Scoping Report respectively. It should be noted that the assessment criteria has been updated to reflect the 2023 IEMA guidelines where appropriate.

3.8.4.46 This assessment is based on baseline data and Proposed Project design information described in **Volume 1, Part 1, Chapter 4, Description of the Proposed Project**. This includes baseline traffic data obtained for the surrounding highway network based on available DfT traffic counts (see **Figure 3.8.6 Road Link and Road Junction Receptors** for locations), as it was not possible to accommodate these surveys in support of this PEIR due to the programme for submission and the requirement to avoid the 2023 school summer holiday period. An updated set of traffic surveys will therefore be carried out in support of the ES to provide a more comprehensive set of baseline traffic flows.

3.8.4.47 This chapter has been informed by the consultation responses to the EIA Scoping Opinion (Ref. 3.8.15) and scoping discussions with KCC, as set out in Section 3.8.3.

3.8.4.48 This assessment considers the peak construction period (expected to take place in 2029) and includes HGV movements, LGV movements and vehicle movements associated with construction worker arrivals and departures. Construction traffic forecasts are set out in Section 3.8.9.

3.8.4.49 Vehicular access during each phase is anticipated to be taken from K-BM02 (A256), K-BM03 (Jutes Lane) and K-BM01 (Ebbsfleet Lane). Further details on proposed access to the Kent Onshore Scheme are set out within Section 3.8.4 and the **Outline CTMP** (**Volume 2, Part 1, Appendix 1.4.C**).

3.8.4.50 The forecast trip distribution of construction staff vehicles has been based on a simple gravity model which has been developed based on 2021 Census data for construction workers living within a 60-minute catchment area of the site. Whilst it is acknowledged that the dataset was collected during the COVID-19 pandemic, this represents the latest information currently available and is considered to be appropriate for informing the likely distribution of construction workers (as opposed to using information from the 2011 Census). This PEIR includes an assessment of the Proposed Project within Section 3.8.9.

3.8.4.51 Although the Proposed Project is located close to a number of towns/villages including Ramsgate, Cliffsend, Sandwich and Minster, only a small proportion of trips are expected to either originate from or pass through these settlements during the construction, operation and maintenance, and the decommissioning phases. The routes to/from the proposed site accesses are illustrated by the HGV routing plan shown in **Figure 3.8.2 HGV Routing Plan**. In addition, the majority of construction vehicle trips will travel to/from the main site access on the A256 Richborough Way as identified in Section 3.8.4. Whilst some staff may originate from larger settlements nearby (e.g. the coastal towns and villages in Thanet) and may travel by public transport or bicycle (the distance is considered too far to walk), these modes are not expected to constitute a significant proportion of trips to the Proposed Project as less than 20% of construction workers are expected to reside locally within Thanet (based on a 60-minute catchment area).

3.8.4.52 The Proposed Project is expected to generate a low level of trips during the operational and maintenance phase, and a review of operational phase transport effects has been excluded from the scope of this assessment (see Section 3.8.9 for further details).

3.8.4.53 Further details relating to the assumptions that have been adopted in support of the assessment work (i.e. relating to access points, working hours, trip generation) are set out below as well as within Section 3.8.9. As set out above, the assessment is based on worst-case parameters in terms of the length of the construction programme and the peak number of daily vehicle trips associated with the Proposed Project. The approach for the assessment work has also been reviewed and agreed with Kent County Council as set out in Section 3.8.3.

Approach for the Transport Assessment

3.8.4.54 Following scoping discussions with KCC, it has been agreed to include the components traditionally forming part of the TA within the PEIR and ES. The following information has been included within this assessment to assess the ability of the highway network to accommodate the development:

- A review of relevant national, regional and local policies (Section 3.8.2);
- Description of the existing and future baseline conditions – a description of the roads, railway lines, footpaths, bridleways and cycle paths within the study area, including those which are expected to be crossed by the route and/or impacted by the works (Section 3.8.7);
- Details of the baseline traffic data which has been used to identify baseline traffic flows on the surrounding highway network (Section 3.8.7);
- A review of PIA data for the most recently available five-year period within CrashMap (Ref. 3.8.20) across the study area (Section 3.8.7);
- Description of the Project and Kent Onshore Scheme setting out timescales for construction, identification of route sections, typical working width layouts, compound locations, access routes to compounds, construction methods for individual railway and road crossings (where required) (**Volume 1, Part 3, Chapter 1, Evolution of the Kent Onshore Scheme** and the **Outline CTMP** in **Volume 2, Part 1, Appendix 1.4.C**);
- Mitigation measures (Section 3.8.8);

- Traffic generation of the Proposed Project including for construction staff, LGVs and HGV traffic with a profile of their arrivals and departures throughout the day (Section 3.8.9);
- Distribution and assignment of trips to the network with construction traffic distributed based on a simple gravity model of worker catchment area and HGVs assigned from the A road network (Section 3.8.9);
- An initial highway impact assessment of the Proposed Project during the construction and decommissioning phases (Section 3.8.9) prior to the preliminary traffic and transport assessment of the significance criteria for both the highway network and walking and cycling routes including PRoW;
- A qualitative review of operational phase considerations associated with the Proposed Project (Section 3.8.9); and
- Summary and conclusions (Section 3.8.10).

3.8.5 Basis of Assessment

3.8.5.1 This section sets out the assumptions that have been made in respect of design flexibility maintained within the Proposed Project and the consideration that has been given to alternative scenarios and the sensitivity of the preliminary assessment to changes in the construction commencement year.

3.8.5.2 Details of the available flexibility and assessment scenarios are presented in **Volume 1, Part 1, Chapter 4, Proposed Project Description** and **Volume 1, Part 1, Chapter 5, PEIR Approach and Methodology.**

Flexibility Assumptions

3.8.5.3 The main preliminary assessments have been undertaken based on the description of the Proposed Project provided in **Volume 1, Part 1, Chapter 4, Description of the Proposed Project**. To take account of the flexibility allowed in the Proposed Project, consideration has been given to the potential for preliminary effects to be of greater or different significance should any of the permanent or temporary infrastructure elements be moved within the Limits of Deviation (LoD) or draft Order Limits.

3.8.5.4 The assumptions made regarding the use of flexibility for the main assessment, and any alternatives assumptions are set out in Table 3.8.16 below.

Table 3.8.16: Flexibility assumptions

Element of flexibility	Proposed Project assumption for initial preliminary assessment	Flexibility assumption considered
Lateral LoD HVDC cables	It is assumed that the cables would cross any roads or PRoW within the LoD, to provide a worst-case assessment	All potential road and PRoW crossing points have been considered (A256, Ebbsfleet Lane North and PRoW TE39). The precise location of the cables does not however influence the number of construction vehicles

		required, or the assessment of peak construction vehicle activity
Lateral LoD Minster Converter Station and Minster Substation	No assumptions required, as the location of the Minster Converter Station and Minster Substation within the LoD does not affect this assessment e.g. in terms of roads, PRoW, construction vehicle routing or numbers	Lateral movement of Minster Converter Station and Minster Substation within the LoD will not influence the traffic and transport assessment as construction access will be via the A256 (K-BM02) and no PRoW will be affected.
Vertical LoD Minster Converter Station and Minster Substation	No assumptions required, as the height of the Minster Converter Station and Minster Substation does not affect this assessment	Vertical movement of Minster Converter Station and Minster Substation within the LoD will not influence the traffic and transport assessment
Lateral LoD overhead lines	There are three options for the proposed overhead lines and pylons and the worst-case option(s) have been considered in terms of temporary and permanent PRoW diversions	The preliminary assessment of effects for each option is presented in Section 3.8.9.
Vertical LoD overhead lines	No assumptions required, as the height of the overhead lines does not affect this assessment	Vertical movement of overhead lines within the LoD will not influence the traffic and transport assessment

Consideration of Scenarios and Options

3.8.5.5 Two alternative scenarios have been considered within each of the technical assessment chapters in Part 3. These are:

- the use of either low height or standard height pylons for the HVAC connection. Within this scenario there are three options as explained in **Volume 1, Part 1, Chapter 4, Description of the Proposed Project**; and
- permanent access to Minster Converter Station and Minster Substation is either taken via the A256 (through access BM02) or off Jutes Lane through access BM03, but with access BM02 being retained for any abnormal indivisible load (AIL) movements during maintenance and operation as explained in **Volume 1, Part 1, Chapter 4, Description of the Proposed Project**.

3.8.5.6 Table 3.8.17 details where these scenarios are relevant to the preliminary traffic and transport assessment and how they have been assessed and reported in Section 3.8.9, preliminary assessment of effects.

Table 3.8.17: Consideration of scenarios

Assessment scenario	How it has been considered within the preliminary assessment
Pylon types	The type of pylons does not alter this assessment.

Permanent access to Minster Converter Station and Minster Substation	No assumptions required, as permanent (operational) access does not affect the outcome of this assessment due to the low number of vehicle movements expected (operational phase effects are scoped out of this chapter). AIL movements at the main site access on the A256 (K-BM02) have been considered as part of the construction phase assessment and further details are set out within the **Outline CTMP** (**Volume 2, Part 1, Appendix 1.4.C**)

Sensitivity Test

Programme duration sensitivity test

3.8.5.7 It is likely that under the terms of the draft DCO, construction could commence in any year up to five years from the granting of the DCO which is assumed to be 2026. Consideration has been given as to whether the preliminary effects reported would be any different if the works were to commence in any year up to year five. Where there is a difference, this is reported in Section 3.8.9, preliminary assessment of effects.

3.8.5.8 At this stage, it is considered that the conclusions of the assessment as reported in Section 3.8.9 would remain unchanged in the instance that the start of construction is delayed. For example, other cumulative schemes may have been completed by the time the Proposed Project construction begins, which would elevate the trips on the local road network in the future baseline. As the assessment criteria is based on a percentage change of vehicle numbers, a higher baseline flow would reduce the proportional impact that the Proposed Project has on the road network. This would reduce or maintain the levels of effect presented in this chapter. It is therefore considered that assessment of 2029 reflects a worst-case approach and the conclusions would remain valid should the peak be later than this.

Construction hours sensitivity test

3.8.5.9 The proposed working hours for the Proposed Project exclude working on a Sunday and Bank Holidays (except for specific works) as outlined in **Volume 1, Part 1, Chapter 4, Description of the Proposed Project**. Consideration is being given to whether the outcome of the assessment may change if working on Sunday and Bank Holidays is permitted to provide flexibility in the programme.

3.8.5.10 At this stage, it is considered that the preliminary assessment of effects reported in Section 3.8.9 would remain unchanged in the instance that added flexibility was built into the programme, as this would potentially reduce the magnitude of peak construction trips by spreading these movements over a greater number of days.

3.8.6 Study Area

3.8.6.1 The study area for the assessment has been defined based on the area where there is likely to be a transport impact resulting from the construction of the Proposed Project. This includes routes along which HGVs and construction worker vehicles will travel during the works programme.

3.8.6.2 The study area has been defined following discussions with KCC during the initial scoping meeting on 12 April 2023. This included a review of the highway network and the pedestrian/cycle network including PRoW which may potentially be affected by the Kent Onshore Scheme. The study area is shown on **Figure 3.8.1 Traffic and Transport Study Area in Kent**.

3.8.6.3 The following road link receptors have been assessed in relation to the Proposed Project within the agreed study area:

- K-RL1: A299 Hengist Way (between the Monkton and Minster Roundabouts);
- K-RL2: A299 Hengist Way (between the Minster and Cliffsend Roundabouts);
- K-RL3: A299 Hengist Way (between the Cliffsend and Sevenscore Roundabouts);
- K-RL4: A299 Hengist Way (east of the Sevenscore Roundabout);
- K-RL5: A256 Richborough Way (between the Sevenscore and Ebbsfleet Roundabouts);
- K-RL6: A256 Ramsgate Road (south of the Ebbsfleet Roundabout);
- K-RL7: Sandwich Road (between the Ebbsfleet Roundabout and Foads Lane);
- K-RL8: Ebbsfleet Lane; and
- K-RL9: Jutes Lane.

3.8.6.4 The following road junction receptors have been assessed in relation to the Proposed Project within the agreed study area:

- K-RJ1: A299/A253/Willetts Hill (Monkton) Roundabout;
- K-RJ2: A299/B2190/Tothill Street (Minster) Roundabout;
- K-RJ3: A299/Canterbury Road West (Cliffsend) Roundabout;
- K-RJ4: A299/A256/Cottington Link Road (Sevenscore) Roundabout;
- K-RJ5: A256/Ramsgate Road/Jutes Lane (Ebbsfleet) Roundabout; and
- K-RJ6: Sandwich Road/Ebbsfleet Lane Signalised junction.

3.8.6.5 The above road link and road junction receptors are shown on **Figure 3.8.6 Road Link and Road Junction Receptors**.

3.8.6.6 The following PRoW receptors (running from east to west) have been assessed in relation to the Proposed Project within the agreed study area, based on the locations where the proposed construction routes will cross PRoW within the draft Order Limits or where temporary/permanent PRoW diversions may be required to accommodate the works or to ensure that these PRoW will remain physically separated from the proposed construction routes/works:

- K-P1: TE37;
- K-P2: TE39;
- K-P3: TE26;
- K-P4: EE42;
- K-P5: TE35; and

- K-P6: TE36.

3.8.6.7 The following national/regional walking and cycling route receptors have been assessed in relation to the Proposed Project within the agreed study area, based on the locations where the proposed construction routes will cross these routes within the draft Order Limits or where temporary diversions or closures will be required:

- K-C1: NCN Route 15/ Cantii Way (these have been grouped for the purposes of the assessment work, as both share the same route within the draft Order limits and there is no change in expected impact as a result of the Proposed Project);
- K-W1: King Charles III England Coast Path;
- K-W2: Contra Trail;
- K-W3: Viking Coastal Trail; and
- K-W4: Saxon Shore Way.

3.8.6.8 The above walking and cycling routes including PRoW are shown on **Figure 3.8.5 Department for Transport Traffic Count Locations**.

3.8.7 Baseline Conditions

Existing Baseline

Highway network

3.8.7.1 The study area (shown on **Figure 3.8.1 Traffic and Transport Study Area in Kent**) includes a number of roads including the A256 Richborough Way, A299 Hengist Way, Sandwich Road, Jutes Lane, Ebbsfleet Lane, Ebbsfleet Lane North and Brook Lane.

3.8.7.2 The A256 runs in a north-south alignment between Dover in the south where it joins the A2 and Cliffsend in the north where it joins the A299 at the Sevenscore Roundabout. As it passes through the study area, the A256 is a dual carriageway with two lanes in each direction and is subject to the national speed limit, reducing to 50mph south of the Ebbsfleet Roundabout (where it connects with Sandwich Road and Jutes Lane). Access to Richborough sub-station is taken from a roundabout on the A256, approximately 400m south of the Ebbsfleet Roundabout.

3.8.7.3 The A299 runs in an east-west alignment between Faversham in the west where if joins the M2 and Ramsgate in the east. Within the study area, the A299 is a dual carriageway with two lanes in each direction and is subject to the national speed limit.

3.8.7.4 Sandwich Road is a single carriageway road that connects the A256 at Ebbsfleet Roundabout in the south and the A299 at the Lord of the Manor Roundabout in the north and passes through Cliffsend. The speed limit varies along its length but is generally 40mph with a section of national speed limit adjacent to the Pegwell Bay Country Park and a section of 30mph through Cliffsend. There is also a restriction on vehicles over 7.5t (except for access) along the length of Sandwich Road.

3.8.7.5 Approximately 200m north of the Ebbsfleet Roundabout is Ebbsfleet Lane with access taken from Sandwich Road via a signalised junction. It is a no-through road which provides access to residential properties and the Stonelees Golf Centre. It is a single carriageway road and has a 7.5t vehicle weight restriction (except for access).

3.8.7.6 Jutes Lane can be accessed via the Ebbsfleet Roundabout and runs parallel to the A256 for approximately 800m before reaching Ebbsfleet Farmhouse. It is a single carriageway road with a 40mph speed limit and provides access to the Weatherlees Hill Wastewater Treatment Works.

3.8.7.7 Ebbsfleet Lane North and Brook Lane also pass through the study area; whilst they are no-through roads, they provide local access to some residential properties and farmland. Ebbsfleet Lane North forms the southern arm of the crossroad junction with Thorne Hill, Cottington Road and Grinsell Hill. It is a single carriageway road with a 7.5t vehicle weight restriction (except for access). Approximately 500m south of the junction, there is an at-grade railway crossing, immediately south of which is Brook Lane.

3.8.7.8 Additional parts of the highway network to the north of the study area include the A299 between the Cliffsend Roundabout and the Monkton Roundabout (including the Minster Roundabout), as well as Cottington Link Road and Cottington Road, Tothill Street, High Street and Marsh Farm Road. The A299 is a dual carriageway subject to a derestricted speed limit between these two roundabouts with two lanes in each direction. Tothill Street forms the southern arm of the Minster Roundabout and runs southwards where it becomes High Street and then Marsh Farm Road which passes through a level crossing. Cottington Link Road provides a link between the A256 and A299 (via the Sevenscore Roundabout) and Cottington Road which runs east-west and passes underneath the A256 and a railway line.

3.8.7.9 Additional parts of the highway network to the south of the study area include the A256 between the Ebbsfleet Roundabout and the A256/A257/Ash Road roundabout, as well as the A257, Ash Road, Richborough Road, Cooper Street Drove, Hills Court Road and Whitehouse Drove. The A256 is initially a dual carriageway to the south of the Ebbsfleet Roundabout, becoming a single carriageway with a single lane in each direction as this approaches the A257. The A257 runs to the west of the A256 and provides access to Hills Court Road which in turn becomes Cooper Street Drove. Ash Road runs to the east of the A256/A257/Ash Road roundabout and provides access to Richborough Road. Both Richborough Road and Cooper Street Drove provide access to Whitehouse Drove which runs northwards towards the study area.

Baseline traffic data

3.8.7.10 As part of this PEIR, baseline traffic data has been obtained for the surrounding highway network within the study area based on available DfT traffic counts (see **Figure 3.8.5 Department for Transport Traffic Count Locations** for the survey locations). The following 24-hour average daily and 12-hour weekday DfT traffic count data has been used to identify baseline traffic flows and a summary is provided in Table 3.8.18 with further detail (including for the peak hours) provided in **Volume 1, Part 3, Appendix 3.8.C, Baseline Traffic Flows**:

- A299 Hengist Way between the Minster and Cliffsend Roundabouts (2019 data);
- A299 Hengist Way to the east of the Sevenscore Roundabout (2019 data);
- A256 Ramsgate Road to the south of the Ebbsfleet Roundabout (2019 data); and
- Sandwich Road to the northeast of Foads Lane (2010 data – only data source available).

Table 3.8.18: Historic Data (DfT counts) Average Weekday (12 hours) and Daily (24 hours)

Location	Base Year	Average Weekday		Average Day	
		HGVs	Total	HGVs	Total
A299 (West)	2019	1,114	21,580	1,176	24,299
A299 (East)	2019	1,045	30,539	1,020	37,967
A256 (South)	2019	1,517	24,762	1,503	30,262
Sandwich Road	2010	1,223	19,743	1,218	23,846
A256 (K-BM02)	2019	1,517	24,762	1,503	30,262
A299/A256 Roundabout	2019	1,798	38,003	1,810	45,665
A256/Sandwich Road Roundabout	2010/2019	2,129	34,319	2,116	41,805

3.8.7.11 Traffic growth has been calculated using National Road Traffic Forecast (NRTF) growth factors, reflecting projected increases in annual vehicle mileage on roads within England and Wales. National Transport Model (NTM) adjustments have then been applied within TEMPro as follows:

- For converting 2010 to 2023 (Sandwich Road only): National Trip Ends Model (NTEM) dataset v7.2 and NTM AF15 dataset (covering the period up to 2040) to reflect local factors (i.e. Thanet) for an urban minor road, to determine the forecast increases in future baseline car driver/passenger trips during each period. It should be noted that factors were only available between 2011 and 2023 (12 years' growth), and one additional year of growth has therefore been applied to cover 2010 to 2023 (13 years' growth); and
- For converting 2019 to 2023: NTEM dataset v7.2 and 2018 RTF – Scenario 1 (Reference Case) dataset (covering the period up to 2050) to reflect local factors (i.e. Thanet) for the appropriate road types, to determine the forecast increases in future baseline car driver/passenger trips during each period.

3.8.7.12 A summary of the growth factors is set out in Table 3.8.19 below.

Table 3.8.19: Traffic growth factors to 2023

Growth period	Road type	Traffic growth factor			
		AM peak	PM peak	Average weekday	Average day
2010 to 2023	Urban Minor (Sandwich Road)	1.1898	1.1854	1.1865	1.1888
2019 to 2023	Principal	1.0275	1.0263	1.0304	1.0302
	Minor	1.0283	1.0271	1.0313	1.0311
	All	**1.0345**	**1.0333**	**1.0375**	**1.0373**

3.8.7.13 To provide consistency across the network, the growth factors for all roads (as presented above in **bold**) have been applied to the 2019 baseline traffic flows to derive 2023 baseline traffic flows for the respective time period. The 2010 baseline traffic flows for Sandwich Road have been converted to 2023 baseline traffic flows by adopting growth factors for urban minor roads.

3.8.7.14 In addition to the parts of the highway network covered by the traffic counts, the above information has been used to estimate baseline (2023) traffic flows for the following road links within the study area:

- A299 Hengist Way (various sections) – based on the above traffic count for the A299 Hengist Way between the Minster and Cliffsend Roundabouts;
- A256 Richborough Road – based on the above traffic count for the A256 Ramsgate Road to the south of the Ebbsfleet Roundabout;
- Ebbsfleet Lane – based on 10% of the traffic flow on Sandwich Road; and
- Jutes Lane – based on 5% of the traffic flow on the A256 Ramsgate Road.

3.8.7.15 The above traffic data has been used to estimate traffic flows for the following road junctions within the study area as detailed below:

- A299/A253/Willetts Hill (Monkton) Roundabout, A299/B2190/Tothill Street (Minster) Roundabout and A299/Canterbury Road West (Cliffsend) Roundabout – based on the link flows for the A299 Hengist Way (between the between the Minster and Cliffsend Roundabouts) which is expected to offer a worst-case position when identifying proportional increases as a result of the Proposed Project (as baseline flows are expected to be higher in reality);
- A299/A256/Cottington Link Road (Sevenscore) Roundabout – based on the traffic flows entering the roundabout from the A299 (West), A299 (East) and the A256 (South);
- A256/Ramsgate Road/Jutes Lane (Ebbsfleet) Roundabout – based on the traffic flows entering and exiting the roundabout via the A256 (South) as well as exiting the roundabout to Ramsgate Road (i.e. Sandwich Road) to the east; and
- Sandwich Road/Ebbsfleet Lane Signalised junction – based on the link flows for Sandwich Road which is expected to offer a worst-case position when identifying proportional increases as a result of the Proposed Project (as baseline flows are expected to be higher in reality).

3.8.7.16 A summary of the 2023 baseline traffic flows on the above parts of the highway network, during the individual hours between 7am-10am, 4pm-7pm, 12 hour weekday (7am-7pm) and 24 hour daily are held in **Volume 1, Part 3, Appendix 3.8.C, Baseline Traffic Flows**. The average weekday and daily traffic flows are also provided in Table 3.8.20.

Table 3.8.20: 2023 Baseline average weekday (12 hours) and daily (24 hours) flows

Location	Average Weekday		Average Day	
	HGVs	Total	HGVs	Total
A299 (West)	1,156	22,389	1,220	25,205

Location	Average Weekday		Average Day	
	HGVs	Total	HGVs	Total
A299 (East)	1,084	31,684	1,058	39,383
A256 (South)	1,574	25,691	1,559	31,391
Sandwich Road	1,451	23,425	1,448	28,348
A256 (K-BM02)	1,574	25,691	1,559	31,391
A299/A256 Roundabout	1,865	39,428	1,878	47,368
A256/Sandwich Road Roundabout	2,300	37,030	2,288	45,113

3.8.7.17 As part of the ES, a series of traffic surveys will be undertaken to obtain a more comprehensive set of baseline traffic flows for the existing highway network within the agreed study area. The scope of these surveys was agreed with KCC Highways in June 2023 following the KCC Highways Scoping Meeting in April 2023, it was not possible to accommodate these surveys in support of this PEIR due to the programme for submission and the requirement to avoid the 2023 school summer holiday period.

Sensitivity of road links and junctions for assessments

3.8.7.18 Table 3.8.21 provides a summary of the road link and road junction sensitivity to severance, pedestrian delay, fear and intimidation, non-motorised user amenity effects taken forward for assessment. Further detail is provided in **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels** and **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**.

Table 3.8.21: Sensitivity of road links and junctions for severance, pedestrian delay, fear and intimidation, non-motorised user amenity

Ref	Receptor type	Description	Sensitivity
K-RL1	Road link	A299 Hengist Way (between the Monkton and Minster Roundabouts)	Negligible
K-RL2	Road link	A299 Hengist Way (between the Minster and Cliffsend Roundabouts)	Negligible
K-RL3	Road link	A299 Hengist Way (between the Cliffsend and the Sevenscore Roundabouts)	Negligible
K-RL4	Road link	A299 Hengist Way (east of the Sevenscore Roundabout, within study area)	Negligible

Ref	Receptor type	Description	Sensitivity
K-RL5	Road link	A256 Richborough Way (between the Sevenscore and Ebbsfleet Roundabouts)	Negligible
K-RL6	Road link	A256 Ramsgate Road (south of the Ebbsfleet Roundabout, within study area)	Medium
K-RL7	Road link	Sandwich Road (between Ebbsfleet Roundabout and Foads Lane)	Medium
K-RL8	Road link	Ebbsfleet Lane	Low
K-RL9	Road link	Jutes Lane	Low
K-RJ1	Road junction	A299/A253/Willetts Hill (Monkton) Roundabout	Low
K-RJ2	Road junction	A299/B2190/Tothill Street (Minster) Roundabout	Medium
K-RJ3	Road junction	A299/Canterbury Road West (Cliffsend) Roundabout	Negligible
K-RJ4	Road junction	A299/A256/Cottington Link Road (Sevenscore) Roundabout	Negligible
K-RJ5	Road junction	A256/Ramsgate Road/Jutes Lane (Ebbsfleet) Roundabout	Low
K-RJ6	Road junction	Sandwich Road/Ebbsfleet Lane Signalised junction	Medium

3.8.7.19 Table 3.8.22 provides a summary of the road link and road junction sensitivity to driver delay effects taken forward for assessment. Further detail is provided in **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels** and **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**.

Table 3.8.22: Sensitivity of road links and junctions for driver delay

Ref	Receptor type	Description	Sensitivity
K-RL1	Road Link	A299 Hengist Way (between the Monkton and Minster Roundabouts)	Negligible
K-RL2	Road Link	A299 Hengist Way (between the Minster and Cliffsend Roundabouts)	Negligible

Ref	Receptor type	Description	Sensitivity
K-RL3	Road Link	A299 Hengist Way (between the Cliffsend and the Sevenscore Roundabouts)	Negligible
K-RL4	Road link	A299 Hengist Way (east of the Sevenscore Roundabout, within study area)	Negligible
K-RL5	Road link	A256 Richborough Way (between the Sevenscore and Ebbsfleet Roundabouts)	Negligible
K-RL6	Road link	A256 Ramsgate Road (south of the Ebbsfleet Roundabout, within study area)	Low
K-RL7	Road link	Sandwich Road (between Ebbsfleet Roundabout and Foads Lane)	Low
K-RL8	Road link	Ebbsfleet Lane	Negligible
K-RL9	Road link	Jutes Lane	Negligible
K-RJ1	Road junction	A299/A253/Willetts Hill (Monkton) Roundabout	High
K-RJ2	Road junction	A299/B2190/Tothill Street (Minster) Roundabout	High
K-RJ3	Road junction	A299/Canterbury Road West (Cliffsend) Roundabout	Medium
K-RJ4	Road junction	A299/A256/Cottington Link Road (Sevenscore) Roundabout	High
K-RJ5	Road junction	A256/Ramsgate Road/Jutes Lane (Ebbsfleet) Roundabout	High
K-RJ6	Road junction	Sandwich Road/Ebbsfleet Lane Signalised junction	Medium

Collision data

3.8.7.20 This section provides a summary of the PIA data obtained from CrashMap (Ref. 3.8.20), which contains official data published by the DfT for the highway network within the agreed study area as shown on **Figure 3.8.1 Traffic and Transport Study Area in Kent**. The scope of the collision review was agreed with KCC Highways in June 2023 following the KCC Highways Scoping Meeting in April 2023. The most recently available PIA data from CrashMap covers the five-year period between the start of 2017 and the end of 2021. Full PIA data will be obtained from KCC Highways for the most recent five-year period available as part of the ES.

3.8.7.21 A summary of the PIA data from CrashMap (categorised by severity; slight, serious and fatal) is set out below in Table 3.8.23. This includes a separate summary of collisions involving goods vehicles to inform the assessment of hazardous/large loads in Section 3.8.9.

Table 3.8.23: Collision review (CrashMap)

Location	Total collisions				Collisions involving a goods ehicle			
	Sl	Se	Fa	Total	Sl	Se	Fa	Total
A299 Hengist Way (between the Monkton and Minster Roundabouts)	4	1	0	5	1	0	0	1
A299 Hengist Way (between the Minster and Cliffsend Roundabouts)	8	5	1	14	1	2	1	4
A299 Hengist Way (between the Cliffsend and the Sevenscore Roundabouts)	1	1	0	2	0	0	0	0
A299 Hengist Way (east of the Sevenscore Roundabout, within study area)	3	0	0	3	1	0	0	1
A256 Richborough Way (between the Sevenscore and Ebbsfleet Roundabouts)	5	3	0	8	0	1	0	1
A256 Ramsgate Road (south of the Ebbsfleet Roundabout, within study area)	2	0	0	2	0	0	0	0
Sandwich Road (between Ebbsfleet Roundabout and Foads Lane)	2	0	0	2	1	0	0	1
Ebbsfleet Lane	0	0	0	0	0	0	0	0
Jutes Lane	0	0	0	0	0	0	0	0
A299/A253/Willetts Hill (Monkton) Roundabout	17	3	0	20	6	1	0	7
A299/B2190/Tothill Street (Minster) Roundabout	7	3	0	10	3	1	0	4
A299/Canterbury Road West (Cliffsend) Roundabout	5	1	0	6	0	0	0	0
A299/A256/Cottington Link Road (Sevenscore) Roundabout	8	1	1	10	0	1	0	1
A256/Ramsgate Road/Jutes Lane (Ebbsfleet) Roundabout	3	1	0	4	0	0	0	0
Sandwich Road/Ebbsfleet Lane Signalised junction	1	0	0	1	0	0	0	0

Sl = Slight, Se = Serious, Fa = Fatal

3.8.7.22 The above shows that there are several locations where more than five PIAs were recorded within the five year period, which may suggest that these locations are more sensitive to an increase in traffic from a highway safety perspective. There are also several locations which appear to have a good safety record with two or fewer PIAs within the five year period, which suggest that these locations may be less sensitive to an increase in traffic from a highway safety perspective. In terms of PIAs involving goods vehicles, there is only one location (Monkton Roundabout) where more than five PIAs were recorded within the five year period.

3.8.7.23 Following on from the above, collision rates have been calculated in billion vehicle miles for road links to provide a comparison with national road safety statistics provided within Road Casualties Great Britain (Ref. 3.8.28). The following formula has been used to calculate the collision rate, where 1,826 reflects the number of days over which the collision data has been sourced (between 01 January 2017 to 31 December 2021).

$$\text{Collision Rate} = \frac{\text{Number of recorded PIAs (per road link)} \times 1 \text{ billion}}{1{,}826 \times \text{AADT (2019)} \times \text{length of road (miles)}}$$

3.8.7.24 The national average collision rate has been calculated between 2017 and 2021 using dataset RAS0302: Urban and rural roads, for the appropriate road type. A summary of the comparison is presented in Table 3.8.24 below.

Table 3.8.24: Collision rates (road links)

Location	PIAs	AADT (2019)	Link length (miles)	Collision rate	National average
A299 Hengist Way (between the Monkton and Minster Roundabouts)	5	24,299	1.5	75	188*
A299 Hengist Way (between the Minster and Cliffsend Roundabouts)	14	24,299	1.6	197	188*
A299 Hengist Way (between the Cliffsend and the Sevenscore Roundabouts)	2	24,299	0.3	150	188*
A299 Hengist Way (east of the Sevenscore Roundabout, within study area)	3	37,967	0.4	108	188*
A256 Richborough Way (between the Sevenscore and Ebbsfleet Roundabouts)	8	30,262	1.5	97	188*
A256 Ramsgate Road (south of the Ebbsfleet Roundabout, within study area)	2	30,262	0.2	181	188*
Sandwich Road (between Ebbsfleet Roundabout and Foads Lane)	2	27,012	1.1	37	324**
Ebbsfleet Lane	0	2,701	0.6	0	324**

Location	PIAs	AADT (2019)	Link length (miles)	Collision rate	National average
Jutes Lane	0	1,513	0.5	0	324**

*rural A-roads **rural other roads

3.8.7.25 The above shows that the majority of the highway network has a lower collision rate than the national average for the comparable road type and may therefore be less sensitive to a change in traffic flow/type, particularly the A299 Hengist Way (between the Monkton and Minster Roundabouts), the A256 Richborough Way (between the Sevenscore and Ebbsfleet Roundabouts) and Sandwich Road (between Ebbsfleet Roundabout and Foads Lane). No PIAs were recorded on Ebbsfleet Lane or Jutes Lane. The A299 Hengist Way (between the Minster and Cliffsend Roundabouts) and the A256 Ramsgate Road (south of the Ebbsfleet Roundabout, within study area) have comparable collision rates with the national average. This information has been used to inform the assessment of road safety and hazardous/large loads within Section 3.8.9.

Sensitivity of road links and junctions for assessment of road safety and hazardous/large loads

3.8.7.26 Table 3.8.25 provides a summary of the road link and road junction sensitivity to road safety and to hazardous/large loads effects taken forward for assessment. Further detail is provided in **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels** and **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**.

Table 3.8.25: Sensitivity of road links and junctions for road safety and for hazardous/large loads

Ref	Receptor type	Description	Sensitivity	
			Road safety	Hazardous/ large loads
K-RL1	Road link	A299 Hengist Way (between the Monkton and Minster Roundabouts)	Low*	Negligible
K-RL2	Road link	A299 Hengist Way (between the Minster and Cliffsend Roundabouts)	Very High	Medium
K-RL3	Road link	A299 Hengist Way (between the Cliffsend and the Sevenscore Roundabouts)	Low	Negligible
K-RL4	Road link	A299 Hengist Way (east of the Sevenscore Roundabout, within study area)	Low	Negligible
K-RL5	Road link	A256 Richborough Way (between the Sevenscore	Medium*	Low

Ref	Receptor type	Description	Sensitivity	
			Road safety	Hazardous/ large loads
		and Ebbsfleet Roundabouts)		
K-RL6	Road link	A256 Ramsgate Road (south of the Ebbsfleet Roundabout, within study area)	Negligible	Negligible
K-RL7	Road link	Sandwich Road (between Ebbsfleet Roundabout and Foads Lane)	Negligible	Negligible
K-RL8	Road link	Ebbsfleet Lane	Negligible	Negligible
K-RL9	Road link	Jutes Lane	Negligible	Negligible
K-RJ1	Road junction	A299/A253/Willetts Hill (Monkton) Roundabout	Very High	Low
K-RJ2	Road junction	A299/B2190/Tothill Street (Minster) Roundabout	Very High	Low
K-RJ3	Road junction	A299/Canterbury Road West (Cliffsend) Roundabout	Medium	Negligible
K-RJ4	Road junction	A299/A256/Cottington Link Road (Sevenscore) Roundabout	Very High	Low
K-RJ5	Road junction	A256/Ramsgate Road/Jutes Lane (Ebbsfleet) Roundabout	Low	Negligible
K-RJ6	Road junction	Sandwich Road/Ebbsfleet Lane Signalised junction	Negligible	Negligible

*sensitivity level has been adjusted to reflect a lower collision rate than the national average

Public transport network

3.8.7.27 A high-level review has been carried out below for public transport as this is not expected to constitute a key travel mode for construction workers. The focus of the assessment work within this chapter is on the highway network and the walking/cycling network including PRoW.

3.8.7.28 Bus services can be accessed from the bus stops a short distance to the south of the Ebbsfleet Roundabout (within the study area). These serve bus route 45/45A which runs between Ramsgate and Sandwich once per hour Monday – Saturday. The first bus service is available at around 7am and the last service is available at around 6pm.

3.8.7.29 The closest railway station to the Proposed Project is Minster, located approximately 2km northwest of the A256 Richborough Way, however there is limited walking/cycling infrastructure to accommodate pedestrians and cyclists between the station and the Proposed Project (e.g. Ebbsfleet Lane North) and the overall route is approximately 3-4km. Minster station is typically served by one train per hour to Ramsgate and one train per hour to London Victoria (via Maidstone East). During the peak hours, there are additional services to London Charing Cross (via Tonbridge).

3.8.7.30 Sandwich railway station is located approximately 4.5km south of the study area and can be accessed via walking or cycling along the King Charles III England Coast Path or by using bus route 45/45A. The station is typically served by one train per hour to London St Pancras International and one train per hour to Ramsgate, with additional services to London Charing Cross (via Tonbridge).

3.8.7.31 In addition to the above, Thanet Parkway railway station opened in July 2023 and is located approximately 2km northeast of the study area on the western periphery of Cliffsend. It is located between Minster and Ramsgate stations and is served by both mainline and high-speed trains, with several services running to/from London per hour, as well as an hourly service to/from Margate. The station includes a car park, pick-up/drop-off area, cycle storage and bus stops with a forecourt.

Active travel network

3.8.7.32 National Cycle Network (NCN) Route 15 runs along the coastline between Sandwich and Whitstable. In the proximity of the study area, it is a traffic-free route running alongside the A256 to the south of Ebbsfleet Roundabout and parallel to Sandwich Road to the north of the Ebbsfleet Roundabout.

3.8.7.33 There are a number of Public Rights of Way (PRoW) which pass through the draft Order Limits and could therefore be impacted by the Kent Onshore Scheme including the following:

- TE26 – public footpath (approx. 3300m in length) that runs along the northern bank of the River Stour;
- TE32 – public footpath (approx. 1900m in length) that runs between Minster and TE26;
- TE35 – restricted byway (approx. 400m in length) that runs between Marsh Farm and TE26 (situated to the west of TE36);
- TE36 – restricted byway (approx. 400m in length) that runs between Marsh Farm and TE26 (situated to the east of TE35);
- TE37 – public footpath (approx. 2900m in length) that follows the Minster to Ramsgate rail line;
- TE39 – public footpath (approx. 1000m in length) that runs along Brooks Lane and across a field to Ebbsfleet Lane;
- TE40 – public footpath (approx. 900m in length) that runs between Minster and TE37;
- TR11 – public footpath (approx. 200m in length) that runs between Foads Lane and Cliffs End Road;

- TR32 – public footpath (approx. 1500m in length) that runs between Cottington Road and Canterbury Road West to the east of the A259, passing over both a railway and the A299; and
- EE42 – public footpath (approx. 7300m in length) that runs along the southern bank of the River Stour. This also forms part of the long-distance walking route, known as Saxon Shore Way.

3.8.7.34 Other recreational/promoted routes include:

- King Charles III England Coast Path – a long-distance footpath between Camber, East Sussex and Ramsgate, Kent, forming part of the longest managed coastal path in the world. It follows the coastline in the proximity of the study area. The cable route will traverse the route of the path using a trenchless method as it passes from the sea to land.
- Contra Trail – a short-distance route between Ramsgate and Pegwell Bay. In the proximity of the study area, it follows a circular route around Pegwell Bay Country Park.
- Viking Coastal Trail – a 50km circular route on the Isle of Thanet passing along Cottington Road to the east of the A256 in proximity of the study area.
- Saxon Shore Way – a long-distance footpath between Gravesend and Hastings. In the proximity of the study area, it follows the River Stour.
- Cantii Way – a long distance cycle route that operates as a loop across East Kent. In the vicinity of the study area, the route passes east-west through Minster and meets a coastal section of the route at Pegwell Bay. This route is shared within NCN Route 15 within the draft Order limits itself.

3.8.7.35 There are no formal equestrian facilities (i.e. bridleways) within, or in the vicinity of the study area.

3.8.7.36 The above includes a summary of the walking/cycling routes which are situated both within and immediately to the north of the study area. A summary of the additional routes which are situated to the south of the study area include:

- ES13 – short section of public footpath situated to the northeast of the Ash Road/Richborough Road junction, providing access between ESX14 to the south and the Stour Valley Walk/Saxon Shore Way along Richborough Road to the north;
- EE48B – public footpath which crosses Richborough Road, running between Cooper Street Drove to the west and EE42 to the east;
- EE43A – restricted byway which runs to the east of Richborough Road to EE43;
- EE46 – public footpath which runs to the south of Richborough Road to EE48B;
- EE48A – public footpath which runs to the west of Cooper Street Drove to Richborough Road;
- EE53 – public footpath which runs adjacent to Cooper Street Drove for a short section and provides access to EE51 to the north and EE61 to the south;
- EE92 – public footpath which runs to the west of Cooper Street Drove to EE91

- EE92A – public footpath which runs to the east of Cooper Street Drove to East Street;
- EE95 – public footpath which runs to the north of the A257 Sandwich Road to Hills Court Road to the west;
- EE96 – public footpath which runs to the south of the A257 Sandwich Road to Saunders Lane;
- EE469 - public footpath – runs adjacent to the southern side of A257 Sandwich Road for a short section, to the west of both EE95 and EE96; and
- EE97A – public footpath which crosses the A257 Sandwich Road, running between EE214A/EE195A to the south and Cooper Street Drove to the northwest.

3.8.7.37 Table 3.8.26 provides a summary of the PRoW and walking/cycling route sensitivity to severance, pedestrian delay, fear and intimidation, non-motorised user amenity effects taken forward for assessment. Further detail is provided in **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels** and **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**.

Table 3.8.26: Sensitivity of PRoW and walking/cycling routes for severance, pedestrian delay, fear and intimidation, non-motorised user amenity

Ref	Receptor type	Description	Sensitivity
K-P1	PRoW	TE37	Medium
K-P2	PRoW	TE39	Low
K-P3	PRoW	TE26	Negligible
K-P4	PRoW	EE42	Negligible
K-P5	PRoW	TE35	Low
K-P6	PRoW	TE36	Medium
K-C1	National Cycling Route Regional Cycling Route	NCN Route 15 Cantii Way	Medium
K-W1	National Walking Route	King Charles III England Coast Path	Medium
K-W2	Regional Walking Route	Contra Trail	Low
K-W3	Regional Walking Route	Viking Coastal Trail	Medium
K-W4	Regional Walking Route	Saxon Shore Way	Negligible

3.8.7.38 Table 3.8.27 provides a summary of the PRoW sensitivity to PRoW diversions and closures taken forward for assessment. Further detail is provided in **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels** and **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**.

Table 3.8.27: Sensitivity of PRoW for PRoW diversions and closures

Ref	Receptor Type	Description	Sensitivity
K-P1	PRoW	TE37	Medium
K-P2	PRoW	TE39	Low
K-P3	PRoW	TE26	Medium
K-P4	PRoW	EE42	Medium
K-P5	PRoW	TE35	Low
K-P6	PRoW	TE36	Low

Future Baseline

3.8.7.39 The future baseline scenarios are set out in **Volume 1, Part 1, Chapter 5, PEIR Approach and Methodology**.

3.8.7.40 In the absence of the Proposed Project, traffic flows on the surrounding highway network would be expected to increase as a result of housing and employment growth. Therefore, projected background traffic growth has been applied to the 2023 baseline traffic flows to represent conditions during the future baseline (and construction peak assessment year) of 2029. As previously mentioned, the decommissioning phase is considered to be too far into the future to be able to accurately predict traffic flows at that time.

3.8.7.41 Traffic growth has been calculated using NRTF growth factors, reflecting projected increases in annual vehicle mileage on roads within England and Wales. NTM adjustments have then been applied within TEMPro utilising NTEM dataset v7.2 and 2018 RTF – Scenario 1 (Reference Case) to reflect local factors (i.e. Thanet) for the appropriate road types, to determine the forecast increases in future baseline car driver/ passenger trips during each period. These represent the latest datasets available, covering the period up to 2050.

3.8.7.42 A summary of the growth factors is set out in Table 3.8.28 below (it is acknowledged that the growth factors for average weekday and average day are identical).

Table 3.8.28: Traffic growth factors to 2029

Growth period	Road type	Traffic growth factor			
		AM peak	PM peak	Average weekday	Average day
2023 to 2029 (Construction)	Principal	1.0305	1.0316	1.0386	1.0386
	Minor	1.0313	1.0324	1.0394	1.0394
	All	**1.0373**	**1.0384**	**1.0454**	**1.0454**

3.8.7.43 To provide consistency across the network and a robust assessment, the growth factors for all roads (as presented above in **bold**) have been applied to the 2023 baseline traffic flows to derive 2029 baseline traffic flows for the respective time period.

3.8.7.44 The anticipated future baseline flows on the surrounding highway network are summarised in **Volume 1, Part 3, Appendix 3.8.C**, **Baseline Traffic Flows** including for the peak hours. The average weekday and daily traffic flows are provided in Table 3.8.20 and Table 3.8.29.

Table 3.8.29: 2029 Future baseline average weekday (12 hours) and daily (24 hours) flows

Location	Average weekday		Average day	
	HGVs	Total	HGVs	Total
A299 (West)	1,208	23,406	1,275	26,350
A299 (East)	1,133	33,123	1,106	41,171
A256 (South)	1,645	26,857	1,630	32,816
Sandwich Road	1,517	24,489	1,514	29,635
A256 (K-BM02)	1,645	26,857	1,630	32,816
A299/A256 Roundabout	1,950	41,218	1,963	49,519
A256/Sandwich Road Roundabout	2,404	38,711	2,392	47,161

3.8.7.45 The consideration of cumulative effects as a result of committed developments is set out within **Volume 1, Part 3, Chapter 14, Kent Onshore Scheme Inter-Project Cumulative Effects**.

3.8.8 Mitigation

3.8.8.1 As set out in **Volume 1, Part 1, Chapter 5, PEIR Approach and Methodology**, mitigation measures typically fall into one of the three categories:

- Embedded measures;
- Control and management measures; and
- Mitigation measures.

Embedded Measures

3.8.8.2 Embedded measures have been integral in reducing the traffic and transport effects of the Proposed Project. Measures that that have been incorporated are:

- Sensitive routing and siting of infrastructure and temporary works.
- Commitments made within **Volume 2, Part 1, Appendix 1.4.C, Outline CTMP** and **Volume 2, Part 1, Appendix 1.4.F, Schedule of Environmental Commitment and Mitigation Measures**.
- Trenchless methods will be utilised at landfall (including underneath Sandwich Road, the Viking Coastal Trail and the Kings Charles III England Coast Path) and

where the proposed access road passes over the River Stour in order to minimise potential impacts. See **Volume 2, Part 1, Appendix 1.4.D Crossings Schedule** for further details.

Control and Management Measures

3.8.8.3 The following measures have been included within **Volume 2, Part 1, Appendix 1.4.A, Outline Code of Construction Practice** relevant to the control and management of impacts that could affect traffic and transport receptors:

- GG03: A Construction Traffic Management Plan (CTMP) will be produced prior to construction. An **Outline CTMP** is provided in **Volume 2, Part 1, Appendix 1.4.C**.
- GG12: Appropriate site layout and housekeeping measures will be implemented by the contractor(s) at all construction sites. This will include, but not be limited to:
  - Managing staff/vehicles entering or leaving site, especially at the beginning and end of the working day; and
  - Managing potential off-site contractor and visitor parking.
- GG13: Vehicles will be correctly maintained and operated in accordance with the manufacturer's recommendations and in a responsible manner. All plant and vehicles will be required to switch off their engines when not in use and when it is safe to do so. In addition, plant and vehicles will conform to relevant applicable standards for the vehicle type.
- TT01: The CTMP will set out measures to reduce route and journey mileage to and from, as well as around site, and prevent nuisance to the residents, businesses and the wider community caused by parking, vehicle movements and access restrictions. It will also provide suitable control for the means of access and egress to the public highway and set out measures for the maintenance and upkeep of the public highway. The plan will also identify access for emergency vehicles. It will also set out measures to reduce safety risks through construction vehicle and driver quality standards and measures to manage abnormal loads.
- TT02: The contractor(s) will implement a monitoring and reporting system to check compliance with the measures set out within the CTMP. This will include the need for a GPS tracking system to be fitted to Heavy Goods Vehicles to check for compliance with authorised construction routes. The contractor(s) will also be expected to monitor the number of construction vehicles between the site and the strategic road network. Deviations from the authorised routes or changes to traffic levels that are higher than the CTMP assumptions, should they occur, will require discussion of the need for additional mitigation measures with highways authorities.
- TT03: All designated Public Rights of Way (PRoW) will be identified, and any potential temporary and/or permanent diversions applied for/detailed in the application for development consent. All designated PRoW crossing the working area will be managed with access only closed for short periods while construction activities occur. Any required diversions will be clearly marked at both ends with signage explaining the diversion (for temporary diversions), the duration of the diversion and a contact number for any concerns.

3.8.8.5 An Outline CTMP has been prepared and is provided in **Volume 2, Part 1, Appendix 1.4.C**. The Outline CTMP includes construction traffic management measures that will be implemented in support of the Proposed Project, to avoid any adverse impacts on the surrounding networks during the construction phase. Measures include management of construction vehicles at any road/rail/pedestrian/cycle crossing points (see **Volume 1, Part 1, Appendix 1.4.D, Crossings Schedule**) by using gates to control construction vehicle movements, with the default position that construction routes would be gated off to provide priority to other users. This includes PRoW TE39 and the proposed haul road railway crossing point via the existing level crossing situated approximately 900m southeast of Minster station which will be managed to ensure operational rail safety.

Mitigation Measures

3.8.8.6 Mitigation measures are additional topic and site-specific measures that have been applied to mitigate or offset any likely significant effects. Mitigation measures included that are relevant to traffic and transport receptors are:

- Further consultation will be held with KCC Highways and PRoW Officers at ES stage, to develop a solution where permanent PRoW diversions can be avoided where possible, or to otherwise identify appropriate mitigation for any permanent PRoW diversions (e.g. TE26 and EE42) should these be required to accommodate the overhead lines and pylons to the north and south of the River Stour once a preferred option has been selected; and
- An Outline PRoW Management Plan will be prepared at ES stage to identify the management and mitigation measures to be implemented to avoid any significant effects on PRoW (e.g. as a result of any diversions or closures) during all phases of the Proposed Project.

3.8.8.7 The ES will include a review of full PIA data (to be obtained from KCC Highways), to identify any collision clusters/patterns, confirm receptor sensitivity levels (road safety and hazardous/large loads) and determine whether any further mitigation measures are required to safely manage construction vehicles travelling to/from the Proposed Project. This will also increase the confidence of the findings set out in Table 3.8.39 and Table 3.8.40.

3.8.8.8 The ES will be supported by updated traffic count data for the surrounding highway network to provide updated baseline traffic flows for the road link and road junction receptors. The assessment work will be updated accordingly, to determine whether any of further mitigation measures are required to safely manage construction vehicles travelling to/from the Proposed Project. This will also increase the confidence of the findings set out in Tables 3.8.34 to 3.8.40.

3.8.9 Preliminary Assessment of Effects

3.8.9.1 The preliminary assessment of the effects of the Kent Onshore Scheme described in this section considers the embedded, control and management and mitigation measures described in Section 3.8.8.

Proposed Access and Vehicle Movements

Proposed access arrangements

3.8.9.2 The Kent Onshore Scheme will be accessed via the following three access points during the construction phase (as shown on **Figure 3.8.2 HGV Routing Plan**):

- **A256 Northbound Carriageway (K-BM02)**: Main access during both construction (for mobilisation/trenchless work and the haul road to the west of the A256) and operation (permanent access/field access) – to be used throughout the construction programme (5 years);
- **Ebbsfleet Lane (K-BM01)**: Access during both construction (for the haul road, compound, storage of materials and HDD location to the east of the A256) and operation (permanent field access) – to be used for approximately 18 months during construction (prior to 2029 peak); and
- **Jutes Lane (K-BM03)**: Secondary access (alternative to the main A256 access) during both construction (mobilisation/trenchless work) and operation (permanent access) – to be used for approximately 3 months during construction (prior to 2029 peak).

3.8.9.3 Further details of the above access arrangements are set out within the **Outline CTMP** (**Volume 2, Part 1, Appendix 1.4.C**).

Construction vehicle routes

3.8.9.4 The primary construction vehicle routes to/from the Proposed Project will include the A299 to the north and the A256 to the south. Construction vehicles will also use Sandwich Road, Ebbsfleet Lane and Jutes Lane in order to access K-BM01 and K-BM03. An HGV routing plan is held in **Figure 3.8.2 HGV Routing Plan**.

3.8.9.5 In terms of abnormal loads, the following routes will be used:

- Transformer Abnormal Indivisible Load (AIL): To arrive from the A299 to the north (e.g. from the port of Ramsgate) and to then travel southbound along the northbound carriageway of the A256 (under a road closure) to access K-BM02.
- Cable Drum Abnormal Loads: Same routing arrangements as above, but to also travel along Ramsgate Road and Ebbsfleet Lane to access K-BM01.

3.8.9.6 There will be no abnormal loads on Jutes Lane (K-BM03). An abnormal load routing plan is held in **Figure 3.8.3 Abnormal Load Routing Plan**.

3.8.9.7 A number of secondary access routes will also be used by construction vehicles, although these will be limited to LGVs where possible. These routes include the following which are illustrated on **Figure 1.4.20 Kent Onshore Scheme Traffic Routes during Construction and Operation**:

- Tothill Street, High Street and Marsh Farm Road;
- Ebbsfleet Lane North and Cottington Road;
- A257, Hills Court Road and Cooper Street Drove;
- The Causeway (Ash Road) and Richborough Road; and

- Whitehouse Drove.

Construction programme, working hours and assessment parameters

3.8.9.8 The following assumptions have been adopted to provide a robust assessment of the Proposed Project:

- The shortest expected construction programme will be 50 months, which provides a worst-case in terms of monthly (and therefore daily) construction vehicle trips;
- The core construction working hours will be Monday to Friday (7am-7pm) and Saturday (7am-5pm) with no Sunday or Bank Holiday working;
- To provide a robust weekday assessment following consultation with KCC Highways, rather than adopting 6am-7am for staff arrivals and 7pm-8pm for staff departures, construction worker travel patterns have been based on the 'shoulder' peaks to the traditional network peak hours; Therefore, staff arrivals have been assumed to take place between 7am-8am and staff departures have been assumed to take place between 6pm-7pm (Monday to Friday);
- HGV movements have been distributed across a 10-hour window, arriving and departing between 8am-6pm. Following feedback received from KCC Highways, a higher proportion of HGV movements have been allocated to the start of the day (between 8am-11am) rather than adopting a flat profile. However, HGV movements will, in practice, be limited as far as possible so as not to travel during the traditional peak hours of 8am-9am and 5pm-6pm through the measures set out within the **Outline CTMP** (**Volume 2, Part 1, Appendix 1.4.C**);
- Light Goods Vehicle (LGV) movements have been distributed across a 12-hour window between 7am-7pm based on a flat profile;
- A weekday assessment (Monday to Friday) has been carried out to provide a worst-case assessment of the peak construction phase based on the above, including both the shoulder and traditional network peaks; and
- A Saturday assessment will be carried out as part of the ES, as there is currently insufficient baseline data available to inform a Saturday assessment at this stage.

Forecast trip attraction

Peak construction (2029)

3.8.9.9 For the purposes of this assessment and based on the information provided in support of the application, the peak daily number of HGVs, LGVs and construction staff required for the Proposed Project are identified below, during the peak construction phase (2029). It should be noted that the forecast numbers below include consideration of daily variation and peak daily movements to provide a robust assessment.

3.8.9.10 There is expected to be a daily peak of 292 construction workers associated with the Proposed Project (which is a maximum daily figure). All 292 construction workers will travel to/from the Proposed Project at the start and end of the working day. An average vehicle occupancy factor of 1.5 construction workers per vehicle has been adopted for the site-based construction staff, which is considered to be reasonable, yet robust, given that a formal Car Share Scheme will be implemented to match potential car sharers. However, in order to provide a worst-case assessment, it has been assumed that office-based/ supervision/ management staff during the construction phase would travel by single occupancy vehicle.

3.8.9.11 Although the Kent Onshore Scheme is located near to a number of settlements including Ramsgate, Cliffsend, Minster and Sandwich, the majority of staff (associated with each phase) are expected to travel by vehicle as opposed to on foot, by bicycle or by public transport for logistical reasons e.g. due to travel distance or the requirement to carry equipment. Therefore, to provide a worst-case assessment in terms of road trips, it has been assumed that all construction workers would travel by vehicle to/from the Proposed Project.

3.8.9.12 In addition to the above, there will be a daily peak of 98 LGVs and 122 HGVs associated with the Proposed Project. All construction vehicles are expected to use the proposed main site access on the A256 (K-BM02) during the peak construction phase (2029). Therefore, all of the above trips have been distributed to/from K-BM02 to focus the assessment on this part of the network. However, for completeness, additional trips have also been allocated to Ebbsfleet Lane (K-BM01) and Jutes Lane (K-BM03) based on the respective access peaks (in terms of vehicle activity), to allow these parts of the network to also be assessed.

A256 (K-BM02)

3.8.9.13 The following trips have been distributed to/from the proposed main site access on the A256 (K-BM02):

- 122 HGV deliveries (244 movements per day);
- 98 LGVs including office-based/supervision/management construction staff (196 movements per day); and
- 292 site-based construction staff (persons) with the forecast number of staff vehicles identified below.

3.8.9.14 In terms of construction staff vehicles, the following has been assumed:

- Office-based/supervision/management construction staff to travel in single occupancy vehicles (included in the LGV movements above); and
- Site-based construction staff to travel by private vehicle with an average occupancy of 1.5 staff per vehicle (supported by a formal Car Share Scheme to match potential car sharers) resulting in 195 staff vehicles (390 daily movements). This represents a lower factor than originally proposed (following feedback from KCC), resulting in a more robust assessment.

3.8.9.15 The above mode share is considered to provide a worst-case assessment in terms of the number of construction staff vehicles forecast. A daily profile of overall construction vehicle movements (arrivals and departures) for the Proposed Project during the peak construction phase (i.e. associated with K-BM02 on the A256) is presented in Table 3.8.30 below.

Table 3.8.30: Forecast peak daily and hourly construction vehicle movements (K-BM02, 2029)

Time	Staff		LGVs		HGVs		Total vehicles		
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Total
07:00-08:00	195	0	10	8	0	0	205	8	213
08:00-09:00	0	0	10	10	15	11	25	21	46
09:00-10:00	0	0	8	10	15	15	23	25	48
10:00-11:00	0	0	7	8	11	15	18	23	41
11:00-12:00	0	0	7	7	10	11	17	18	35
12:00-13:00	0	0	7	7	10	10	17	17	34
13:00-14:00	0	0	7	7	10	10	17	17	34
14:00-15:00	0	0	7	7	10	10	17	17	34
15:00-16:00	0	0	7	7	15	10	22	17	39
16:00-17:00	0	0	10	7	15	15	25	22	47
17:00-18:00	0	0	10	10	11	15	21	25	46
18:00-19:00	0	195	8	10	0	0	8	205	213
Total	**195**	**195**	**98**	**98**	**122**	**122**	**415**	**415**	**830**

Ebbsfleet Lane (K-BM01)

3.8.9.16 The trip generation for the proposed site access on Ebbsfleet Lane (K-BM01) during the peak period for that access (2028) is shown in Table 3.8.31. These trips are expected to take place prior to the peak construction phase (2029). The same assumptions have been adopted above in terms of construction staff vehicles and travel patterns throughout the day.

Table 3.8.31: Forecast peak daily and hourly construction vehicle movements for Ebbsfleet Lane (K-BM01, 2028)

Time	Staff		LGVs		HGVs		Total vehicles		
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Total
07:00-08:00	53	0	4	3	0	0	57	3	60
08:00-09:00	0	0	3	4	5	5	8	9	17
09:00-10:00	0	0	3	3	5	5	8	8	16
10:00-11:00	0	0	3	3	5	5	8	8	16
11:00-12:00	0	0	3	3	5	5	8	8	16
12:00-13:00	0	0	3	3	4	4	7	7	14
13:00-14:00	0	0	3	3	5	5	8	8	16
14:00-15:00	0	0	3	3	5	5	8	8	16
15:00-16:00	0	0	3	3	4	4	7	7	14
16:00-17:00	0	0	3	3	3	3	6	6	12
17:00-18:00	0	0	4	3	1	1	5	4	9

Time	Staff		LGVs		HGVs		Total vehicles		
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Total
18:00-19:00	0	53	3	4	0	0	3	57	60
Total	53	53	38	38	42	42	133	133	267

3.8.9.17 The trips presented in Table 3.8.31 have only been used to inform the assessment of Sandwich Road, the Sandwich Road/Ebbsfleet Lane junction and Ebbsfleet Lane (K-BM01), given that the assessment of the remainder of the network (except Jutes Lane) has been based on the peak construction phase as presented earlier.

Jutes Lane (K-BM03)

3.8.9.18 The trip generation for the proposed site access on Jutes Lane (K-BM03) during the peak period for that access (2027) is shown in Table 3.8.32. These trips are expected to take place prior to the peak construction phase (2029). The same assumptions have been adopted above in terms of construction staff vehicles and travel patterns throughout the day.

Table 3.8.32: Forecast peak daily and hourly construction vehicle movements for Jutes Lane (K-BM03, 2027)

Time	Staff		LGVs		HGVs		Total vehicles		
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Total
07:00-08:00	28	0	2	1	0	0	30	1	31
08:00-09:00	0	0	2	2	1	1	3	3	6
09:00-10:00	0	0	2	2	1	1	3	3	6
10:00-11:00	0	0	2	2	1	1	3	3	6
11:00-12:00	0	0	1	2	1	1	2	3	5
12:00-13:00	0	0	2	1	0	0	2	1	3
13:00-14:00	0	0	1	2	1	1	2	3	5
14:00-15:00	0	0	2	1	0	0	2	1	3
15:00-16:00	0	0	1	2	0	0	1	2	3
16:00-17:00	0	0	2	1	0	0	2	1	3
17:00-18:00	0	0	2	2	0	0	2	2	4
18:00-19:00	0	28	1	2	0	0	1	30	31
Total	28	28	20	20	5	5	53	53	106

3.8.9.19 The trips presented in Table 3.8.32 have only been used to inform the assessment of Jutes Lane (K-BM03), given that the assessment of the remainder of the network (except Ebbsfleet Lane) has been based on the peak construction phase as presented earlier.

Forecast trip distribution

3.8.9.20 The forecast trip distribution in terms of trips entering/exiting the study area based on their expected points of origin when arriving to the Proposed Project (and conversely points of destination when departing) is set out in Table 3.8.33 below.

Table 3.8.33: Forecast peak daily and hourly construction vehicle movements

Point of entry/exit	Staff	LGVs	HGVs
A299 (West)	60%	80%	80%
A299 (East)	15%	10%	10%
A256 (South)	25%	10%	10%
Total	**100%**	**100%**	**100%**

3.8.9.21 The above distribution has been informed by feedback received from KCC Highways following the KCC Highways Scoping Meeting in April 2023.

3.8.9.22 The staff distribution has been based on 2021 Census data (TS060 – Industry dataset) (Ref. 3.8.26) to identify the number of existing residents living within a 60-minute catchment of the site who also work in the construction industry. A 'distance decay' approach has then been used to inform the trip distribution based on their proximity to the Proposed Project. Further details of the methodology and calculations are held in **Volume 1, Part 3, Appendix 3.8.D, Construction Worker Trip Distribution**.

3.8.9.23 In terms of the HGV and LGV trip distributions, the majority of trips are expected to enter/ exit the study area via the A299 (west) as this part of the highway network ultimately serves the majority of Kent and routes to/from London and further afield. The routes via the A299 (east) and A256 (south) are more limited in terms of the areas which they serve and include local areas such as Ramsgate to the east and Dover to the south. An HGV routing plan is held in **Figure 3.8.2 HGV Routing Plan**.

3.8.9.24 In terms of trip distribution, all construction vehicles are expected to use the proposed main site access on the A256 (K-BM02) during the peak construction phase (2029), with all trips associated with the proposed accesses on Ebbsfleet Lane (K-BM01) and Jutes Lane (K-BM03) taking place earlier in the programme, representing less than 10% of construction vehicle trips across the whole programme. Therefore to provide a worst-case assessment, all trips have been distributed to/from K-BM02 to focus the assessment on this part of the network, as agreed with KCC Highways. Nonetheless, an assessment of the local highway network serving Ebbsfleet Lane (K-BM01) and Jutes Lane (K-BM03) has also been carried out based on the peak trips identified for those access points above.

3.8.9.25 The proposed main site access (K-BM02) is situated on the northbound side of the A256 dual carriageway, requiring all vehicles (except AILs – see paragraph 3.8.9.5) to turn left in/left out of the access. Therefore, the majority of arrivals from the north would require vehicles to u-turn at the Ebbsfleet Roundabout to the south. In addition, the majority of departures to the south would require vehicles to u-turn at the Sevenscore Roundabout to the north. This has been considered as part of the trip distribution.

3.8.9.26 The adopted distribution of construction vehicle trips across the highway network are illustrated on the traffic flow diagrams held in **Volume 1, Part 3, Appendix 3.8.E, Construction Worker Trips Distribution**.

Preliminary highway impact assessment

3.8.9.27 A preliminary highway impact assessment has been carried out to identify the forecast increases in traffic levels on the surrounding highway network (road link and road junction receptors) as a result of construction traffic during the peak construction phase. This has been informed by the forecast trip generation and distribution presented above and has been used to identify worst-case percentage increases in terms of HGVs and total vehicles to inform the assessments set out later within this section.

3.8.9.28 The preliminary highway impact is set out in **Volume 1, Part 3, Appendix 3.8.F, Preliminary Highway Impact Assessment**, which includes all road link and road junction receptors during the development 'shoulder' peak hours (7am-8am and 6pm-7pm), network peak hours (8am-9am and 5pm-6pm) and the weekday 12-hour period (7am-7pm).

3.8.9.29 In the event that the Project is decommissioned, there is expected to be fewer HGV, LGV and worker arrivals and departures associated with the decommissioning phase of the Kent Onshore Scheme than during the construction phase. It is therefore considered reasonable to assume that the impacts of the decommissioning phase will be the same as, or not greater than, the construction phase. Therefore, and given that the exact timing of this scenario is unknown, the assessment of the construction phase has been adopted to determine the anticipated impact of the Kent Onshore Scheme during its decommissioning phase.

Severance

3.8.9.30 The assessment of severance in relation to the Proposed Project has been based on the road link receptors, road junction receptors, PRoW receptors and national/regional walking and cycling route receptors identified in Section 3.8.6 (see also **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**).

3.8.9.31 Details of magnitude of impact with respect to severance are set out within **Volume 1, Part 3, Appendix 3.8.G, Magnitude of Change**, based on the information presented in Section 3.8.4.

3.8.9.32 The preliminary assessment of severance is summarised in Table 3.8.34 below, with further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**.

Table 3.8.34: Preliminary assessment of severance

	Preliminary assessment
Receptor	Road link, road junction, PRoW and national/regional walking/cycling route receptors
Potential impact	Severance
Proposed Project phase	Construction and decommissioning
Duration	Circa. five years (each phase)
Mitigation	GG03, TT01, TT02 and TT03
Preliminary sensitivity	Road Links and Junctions

	Preliminary assessment
	K-RL6, K-RL7, K-RJ2 and K-RJ6 are Medium K-RL8, K-RL9, K-RJ1 and K-RJ5 are Low K-RL1, K-RL2, K-RL3, K-RL4, K-RL5, K-RJ3 and K-RJ4 are Negligible <u>PRoW</u> K-P1 and K-P6 are Medium K-P2 and K-P5 are Low K-P3 and K-P4 are Negligible <u>National and Regional Routes</u> K-C1, K-W1 and K-W3 are Medium K-W2 is Low K-W4 is Negligible Further details held in **Volume 1, Part 3, Appendix 3.8.H Preliminary Assessments**
Preliminary magnitude	<u>Road Links and Junctions</u> K-RL8 is Medium K-RL1, K-RL2, K-RL3, K-RL5, K-RL9, K-RJ1, K-RJ2, K-RJ3 and K-RJ4 are Small K-RL4, K-RL6, K-RL7, K-RJ5 and K-RJ6 are Negligible <u>PRoW</u> K-P3 and K-P4 are Large K-P2 and K-P6 are Small K-P1 and K-P5 are Negligible <u>National and Regional Routes</u> K-W4 is Large K-C1, K-W1, K-W2 and K-W3 are Negligible Further detail is provided in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments.**
Preliminary likely significance of effect	Likely to be **Not Significant** (all receptors)
Confidence in prediction	Low
Sensitivity tests	
Programme duration sensitivity test	No change expected (a later baseline year due to a delay in the Proposed Project would increase baseline traffic flows, resulting in reduced proportional increases as a result of the Proposed Project)

	Preliminary assessment
Construction working hours sensitivity test	No change expected (working on Sundays and Bank Holidays would potentially reduce the magnitude of peak construction trips by spreading these movements over a greater number of days)

3.8.9.33 As shown above, the likely impact of the Proposed Project on severance across all receptors within the study area is considered to be not significant based on the preliminary assessment. This will be reviewed further as part of the ES based on updated baseline traffic flows (which will increase the confidence of the findings).

Pedestrian delay

3.8.9.34 The assessment of pedestrian delay in relation to the Proposed Project has been based on the road link receptors, road junction receptors, PRoW receptors and national/regional walking and cycling route receptors identified in Section 3.8.6 (see also **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**).

3.8.9.35 Details of magnitude of impact with respect to pedestrian delay are set out within **Volume 1, Part 3, Appendix 3.8.G, Magnitude of Change**, based on the information presented in Section 3.8.4.

3.8.9.36 The preliminary assessment of pedestrian delay is summarised in Table 3.8.35 below, with further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**.

Table 3.8.35: Preliminary assessment of pedestrian delay

	Preliminary assessment
Receptor	Road link, road junction, PRoW and national/regional walking/cycling route receptors (see **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**)
Potential impact	Pedestrian delay
Proposed Project phase	Construction and decommissioning
Duration	Circa. five years (each phase)
Mitigation	GG03, TT01, TT02 and TT03
Preliminary sensitivity	<u>Road Links and Junctions</u> K-RL6, K-RL7, K-RJ2 and K-RJ6 are Medium K-RL8, K-RL9, K-RJ1 and K-RJ5 are Low K-RL1, K-RL2, K-RL3, K-RL4, K-RL5, K-RJ3 and K-RJ4 are Negligible <u>PRoW</u> K-P1 and K-P6 are Medium K-P2 and K-P5 are Low K-P3 and K-P4 are Negligible

	Preliminary assessment
	National and Regional Routes K-C1, K-W1 and K-W3 are Medium K-W2 is Low K-W4 is Negligible Further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments.**
Preliminary magnitude	Road Links and Junctions K-RL8 is Medium K-RL1, K-RL2, K-RL3, K-RL5, K-RL9, K-RJ1, K-RJ2, K-RJ3 and K-RJ4 are Small K-RL4, K-RL6, K-RL7, K-RJ5 and K-RJ6 are Negligible PRoW K-P3 and K-P4 are Large K-P2 and K-P6 are Small K-P1 and K-P5 are Negligible National and Regional Routes K-W4 is Large K-C1, K-W1, K-W2 and K-W3 are Negligible Further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments.**
Preliminary likely significance of effect	Likely to be **Not Significant** (all receptors)
Confidence in prediction	Low
Sensitivity tests	
Programme duration sensitivity test	No change expected (a later baseline year due to a delay in the Proposed Project would increase baseline traffic flows, reducing proportional increases as a result of the Proposed Project)
Construction working hours sensitivity test	No change expected (working on Sundays and Bank Holidays would potentially reduce the magnitude of peak construction trips by spreading these movements over a greater number of days)

3.8.9.37 As shown above, the likely impact of the Proposed Project on pedestrian delay across all receptors within the study area is considered to be not significant based on the preliminary assessment. This will be reviewed further as part of the ES based on updated baseline traffic flows (which will increase the confidence of the findings).

Non-motorised user amenity

3.8.9.38 The assessment of non-motorised user amenity in relation to the Proposed Project has been based on the road link receptors, road junction receptors, PRoW receptors and national/regional walking and cycling route receptors identified in Section 3.8.6 (see also **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**).

3.8.9.39 Details of receptor sensitivity and magnitude of impact with respect to non-motorised user amenity are set out within **Volume 1, Part 3, Appendix 3.8.G, Magnitude of Change**, based on the information presented in Section 3.8.4.

3.8.9.40 The preliminary assessment of non-motorised user amenity is summarised in Table 3.8.36 below, with further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**.

Table 3.8.36: Preliminary assessment of non-motorised user amenity

	Preliminary assessment
Receptor	Road link, road junction, PRoW and national/regional walking/cycling route receptors (see **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**)
Potential impact	Non-motorised user amenity
Proposed Project phase	Construction and decommissioning
Duration	Circa. five years (each phase)
Mitigation	GG03, GG13, TT01 and TT02
Preliminary sensitivity	Road Links and Junctions K-RL6, K-RL7, K-RJ2 and K-RJ6 are Medium K-RL8, K-RL9, K-RJ1 and K-RJ5 are Low K-RL1, K-RL2, K-RL3, K-RL4, K-RL5, K-RJ3 and K-RJ4 are Negligible PRoW K-P1 and K-P6 are Medium K-P2 and K-P5 are Low K-P3 and K-P4 are Negligible National and Regional Routes K-C1, K-W1 and K-W3 are Medium K-W2 is Low K-W4 is Negligible Further details held in **Volume 1, Part 3, Appendix 3.8.H Preliminary Assessments**
Preliminary magnitude	Road Links and Junctions All are Negligible

	Preliminary assessment
	PRoW K-P2, K-P3, K-P4 and K-P6 are Small K-P1 and K-P5 are Negligible National and Regional Routes K-W4 is Small K-C1, K-W1, K-W2 and K-W3 are Negligible Further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments.**
Preliminary likely significance of effect	Likely to be **Not Significant** (all receptors)
Confidence in prediction	Low
Sensitivity tests	
Programme duration sensitivity test	No change expected (a later baseline year due to a delay in the Proposed Project would increase baseline traffic flows, reducing proportional increases as a result of the Proposed Project)
Construction working hours sensitivity test	No change expected (working on Sundays and Bank Holidays would potentially reduce the magnitude of peak construction trips by spreading these movements over a greater number of days)

3.8.9.41 As shown above, the likely impact of the Proposed Project on non-motorised user amenity across all receptors within the study area is considered to be not significant based on the preliminary assessment. This will be reviewed further as part of the ES based on updated baseline traffic flows (which will increase the confidence of the findings).

Fear and Intimidation

3.8.9.42 The assessment of fear and intimidation in relation to the Proposed Project has been based on the road link receptors, road junction receptors, PRoW receptors and national/regional walking and cycling route receptors identified in Section 3.8.6 (see also **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**).

3.8.9.43 Details of receptor sensitivity and magnitude of impact with respect to fear and intimidation are set out within **Volume 1, Part 3, Appendix 3.8.G, Magnitude of Change**, based on the information presented in Section 3.8.4.

3.8.9.44 The preliminary assessment of fear and intimidation is summarised in Table 3.8.37 below, with further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**.

Table 3.8.37: Preliminary assessment of fear and intimidation

	Preliminary assessment
Receptor	Road link, road junction, PRoW and national/regional walking/cycling route receptors (see **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**)
Potential impact	Fear and intimidation
Proposed Project phase	Construction and decommissioning
Duration	Circa. five years (each phase)
Mitigation	GG03, GG13, TT01 and TT02
Preliminary sensitivity	Road Links and Junctions K-RL6, K-RL7, K-RJ2 and K-RJ6 are Medium K-RL8, K-RL9, K-RJ1 and K-RJ5 are Low K-RL1, K-RL2, K-RL3, K-RL4, K-RL5, K-RJ3 and K-RJ4 are Negligible PRoW K-P1 and K-P6 are Medium K-P2 and K-P5 are Low K-P3 and K-P4 are Negligible National and Regional Routes K-C1, K-W1 and K-W3 are Medium K-W2 is Low K-W4 is Negligible Further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**
Preliminary magnitude	Road Links and Junctions K-RL5 and K-RJ4 are Small K-RL1, K-RL2, R-RL3, K-RL4, K-RL6, K-RL7, K-RL8, K-RL9, K-RJ1, K-RJ2, K-RJ3, K-RJ5 and K-RJ6 are Negligible PRoW K-P2, K-P3, K-P4 and K-P6 are Small K-P1 and K-P5 are Negligible National and Regional Routes K-W4 is Small K-C1, K-W1, K-W2 and K-W3 are Negligible

	Preliminary assessment
	Further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments.**
Preliminary likely significance of effect	Likely to be **Not Significant** (all receptors)
Confidence in prediction	Low
Sensitivity tests	
Programme duration sensitivity test	No change expected (a later baseline year due to a delay in the Proposed Project would increase baseline traffic flows, reducing proportional increases as a result of the Proposed Project)
Construction working hours sensitivity test	No change expected (working on Sundays and Bank Holidays would potentially reduce the magnitude of peak construction trips by spreading these movements over a greater number of days)

3.8.9.45 As shown above, the likely impact of the Proposed Project on fear and intimidation across all receptors within the study area is considered to be not significant based on the preliminary assessment. This will be reviewed further as part of the ES based on updated baseline traffic flows (which will increase the confidence of the findings).

Driver delay

3.8.9.46 The assessment of driver delay in relation to the Proposed Project has been based on the road link receptors and road junction receptors identified in Section 3.8.6 (see also **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**).

3.8.9.47 Details of receptor sensitivity and magnitude of impact with respect to driver delay are set out within **Volume 1, Part 3, Appendix 3.8.G, Magnitude of Change**, based on the information presented in Section 3.8.4.

3.8.9.48 The preliminary assessment of driver delay is summarised in Table 3.8.38 below, with further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**.

Table 3.8.38: Preliminary assessment of driver delay

	Preliminary assessment
Receptor	Road link and road junction receptors (see **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**)
Potential impact	Driver delay
Proposed Project phase	Construction and decommissioning
Duration	Circa. five years (each phase)
Mitigation	GG03, TT01 and TT02
Preliminary sensitivity	Road Links and Junctions K-RJ1, K-RJ2, K-RJ4 and K-RJ5 are High K-RJ3 and K-RJ6 are Medium

	Preliminary assessment
	K-RL6 and K-RL7 are Low K-RL1, K-RL2, K-RL3, K-RL4, K-RL5, K-RL8 and K-RL9 are Negligible Further details held in **Volume 1, Part 3, Appendix 3.8.H Preliminary Assessments**
Preliminary magnitude	Road Links and Junctions K-RL8 and K-RL9 are Small K-RL1, K-RL2, K-RL3, K-RL4, K-RL5, K-RL6, K-RL7, K-RJ1, K-RJ2, K-RJ3, K-RJ4, K-RJ5 and K-RJ6 are Negligible Further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**
Preliminary likely significance of effect	Likely to be **Not Significant** (all receptors)
Confidence in prediction	Low
Sensitivity tests	
Programme duration sensitivity test	No change expected (a later baseline year due to a delay in the Proposed Project would increase baseline traffic flows, reducing proportional increases as a result of the Proposed Project)
Construction working hours sensitivity test	No change expected (working on Sundays and Bank Holidays would potentially reduce the magnitude of peak construction trips by spreading these movements over a greater number of days)

3.8.9.49 As shown above, the likely impact of the Proposed Project on driver delay across all receptors within the study area is considered to be not significant based on the preliminary assessment. This will be reviewed further as part of the ES based on updated baseline traffic flows (which will increase the confidence of the findings).

Road safety

3.8.9.50 The assessment of road safety in relation to the Proposed Project has been based on the road link receptors and road junction receptors identified in Section 3.8.6 (see also **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**).

3.8.9.51 Details of receptor sensitivity and magnitude of impact with respect to road safety are set out within **Volume 1, Part 3, Appendix 3.8.G, Magnitude of Change**, based on the information presented in Section 3.8.4.

3.8.9.52 The preliminary assessment of road safety is summarised in Table 3.8.39 below, with further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**.

Table 3.8.39: Preliminary assessment of road safety

	Preliminary assessment
Receptor	Road link and road junction receptors (see **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**)
Potential impact	Road safety
Proposed Project phase	Construction and decommissioning
Duration	Circa. five years (each phase)
Mitigation	GG03, GG12, GG13, TT01 and TT02
Preliminary sensitivity	Road Links and Junctions K-RL2, K-RJ1, K-RJ2 and K-RJ4 are Very High K-RL5 and K-RJ3 are Medium K-RL1, K-RL3, K-RL4 and K-RJ5 are Low K-RL6, K-RL7, K-RL8, K-RL9 and K-RJ6 are Negligible Further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments.**
Preliminary magnitude	Road Links and Junctions K-RL8 and K-RL9 are Small K-RL1, K-RL2, K-RL3, K-RL4, K-RL5, K-RL6, K-RL7, K-RJ1, K-RJ2, K-RJ3, K-RJ4, K-RJ5 and K-RJ6 are Negligible Further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments.**
Preliminary likely significance of effect	Likely to be **Not Significant** (all receptors)
Confidence in prediction	Low
Sensitivity test	
Programme duration sensitivity test	No change expected (a later baseline year due to a delay in the Proposed Project would increase baseline traffic flows, reducing proportional increases as a result of the Proposed Project)
Construction working hours sensitivity test	No change expected (working on Sundays and Bank Holidays would potentially reduce the magnitude of peak construction trips by spreading these movements over a greater number of days)

3.8.9.54 As shown above, the likely impact of the Proposed Project on road safety across all receptors within the study area is considered to be not significant based on the preliminary assessment, with the additional mitigation identified for the A256 Richborough Way (between the Sevenscore and Ebbsfleet Roundabouts). This will be reviewed further as part of the ES, when a full assessment is carried out based on updated baseline traffic flows and using full PIA data obtained from KCC Highways (which will increase the confidence of the findings).

Hazardous/large loads

3.8.9.55 A potential source of impacts arise from large and hazardous loads.

3.8.9.56 Hazardous loads include the transport of explosives, gases, flammable liquid/solids, oxidising/toxic substances, radioactive material or corrosive substances. Oil will be required for the transformers and gases will be used in the Gas Insulated Switchgear. Large loads include any abnormal loads. These inputs are expected to be predominantly required during the construction and decommissioning phases and the transport of hazardous loads has been considered accordingly within this preliminary environmental assessment and **Outline CTMP** (**Volume 2, Part 1, Appendix 1.4.C**).

3.8.9.57 The assessment of hazardous/large loads in relation to the Proposed Project has been based on the road link receptors and road junction receptors identified in Section 3.8.6 (see also **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**).

3.8.9.58 Details of receptor sensitivity and magnitude of impact with respect to Hazardous Loads are set out within **Volume 1, Part 3, Appendix 3.8.G, Magnitude of Change**, based on the information presented in Section 3.8.4.

3.8.9.59 The preliminary assessment of hazardous/large loads is summarised in Table 3.8.40 below, with further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**.

Table 3.8.40: Preliminary assessment of hazardous/large loads

	Preliminary assessment
Receptor	Road link and road junction receptors (see **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**)
Potential impact	Hazardous/large loads
Proposed Project phase	Construction and decommissioning
Duration	Circa. five years (each phase)
Mitigation	GG03, GG13, TT01 and TT02
Preliminary sensitivity	Road Links and Junctions K-RL2 is Medium K-RL5, K-RJ1, K-RJ2 and K-RJ4 are Low K-RL1, K-RL3, K-RL4, K-RL6, K-RL7, K-RL8, K-RL9, K-RJ3, K-RJ5 and K-RJ6 are Negligible Further details held in **Volume 1, Part 3, Appendix 3.8.H Preliminary Assessments,**

	Preliminary assessment
Preliminary magnitude	Road Links and Junctions K-RL1, K-RL2, K-RL3, K-RL4, K-RL5, K-RL8, K-RJ1, K-RJ2, K-RJ3, K-RJ4, K-RJ5 and K-RJ6 are Small K-RL6, K-RL7 and K-RL9 are Negligible Further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments.**
Preliminary likely significance of effect	Likely to be **Not Significant** (all receptors)
Confidence in prediction	Low
Sensitivity test	
Programme duration sensitivity test	No change expected (a later baseline year due to a delay in the Proposed Project would increase baseline traffic flows, reducing proportional increases as a result of the Proposed Project)
Construction working hours sensitivity test	No change expected (working on Sundays and Bank Holidays would potentially reduce the magnitude of peak construction trips by spreading these movements over a greater number of days)

3.8.9.60 As shown above, the likely impact of the Proposed Project on hazardous/large loads across all receptors within the study area is considered to be not significant based on the preliminary assessment. This will be reviewed further as part of the ES when a full assessment is carried out based on full PIA data obtained from KCC Highways and once further details on abnormal loads are known (which will increase the confidence of the findings).

PRoW diversions and closures

3.8.9.61 The assessment of PRoW diversions and closures in relation to the Proposed Project has been based on the PRoW receptors identified in Section 3.8.6 (see also **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**).

3.8.9.62 Details of receptor sensitivity and magnitude of impact with respect to PRoW diversions and closures are set out within **Volume 1, Part 3, Appendix 3.8.G, Magnitude of Change**, based on the information presented in Section 3.8.4.

3.8.9.63 The preliminary assessment of PRoW diversions and closures is summarised in Table 3.8.41 below, with further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**.

Table 3.8.41: Preliminary assessment of PRoW diversions and closures

	Preliminary assessment
Receptor	PRoW receptors (see **Volume 1, Part 3, Appendix 3.8.B, Receptor Sensitivity Levels**)

	Preliminary assessment
Potential impact	PRoW diversions and closures
Proposed Project phase	Construction and decommissioning
Duration	Circa. five years (each phase)
Mitigation	GG03, TT01, TT02 and TT03 (all receptors) K-TTAM01 and K-TTAM02 (K-P3 and K-P4)
Preliminary sensitivity	PRoW K-P1, K-P3 and K-P4 are Medium K-P2, K-P5 and K-P6 are Low Further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**
Preliminary magnitude	A temporary diversion would be required for K-P2 (PRoW TE39) during construction and decommissioning of the Proposed Project. In addition there may be a need for the permanent diversion of either K-P3 (PRoW TE26) or K-P4 (PRoW EE42), depending on which of the three options for the proposed overhead lines and pylons is taken forward: Option 1 may require the permanent diversion of K-P4. This would result in a Large impact on K-P4 and a Small impact on K-P3 (management required, but no temporary or permanent diversion expected for K-P3). With the mitigation identified (K-TTAM01 and K-TTAM02), this reduces to a Small impact on K-P4. Options 2 and 3 may require the permanent diversion of K-P3. This would result in a Large impact on K-P3 and a Small impact on K-P4 (management required, but no temporary or permanent diversion expected for K-P4). With the mitigation identified (K-TTAM01 and K-TTAM02), this reduces to a Small impact on K-P3. All other effects would be Small (K-P2) or Negligible (K-K-P1, K-P5 and K-P6). Further details held in **Volume 1, Part 3, Appendix 3.8.H, Preliminary Assessments**
Preliminary likely significance of effect	Likely to be **Not Significant** (all receptors)
Confidence in prediction	Moderate
Sensitivity test	

	Preliminary assessment
Programme duration sensitivity test	No change expected (a later baseline year due to a delay in the Proposed Project would increase baseline traffic flows, reducing proportional increases as a result of the Proposed Project)
Construction working hours sensitivity test	No change expected (working on Sundays and Bank Holidays would potentially reduce the magnitude of peak construction trips by spreading these movements over a greater number of days)

3.8.9.64 As shown above, the likely impact of the Proposed Project on PRoW diversions and closures is considered to be not significant based on the preliminary assessment, with the additional mitigation (TMAM01 and TMAM02) identified for PRoW TE26 (K-P3) and PRoW EE42 (K-P4). This will be reviewed further as part of the ES and the Outline PRoW Management Plan when the preferred option has been selected for the overhead lines and pylons to the north and south of the River Stour (which will increase the confidence of the findings).

Operation and Maintenance

3.8.9.65 During the operational and maintenance phase, the Kent Onshore Scheme will be manned by two operatives across the site (associated with the operation of the proposed Minster Converter Station and Minster Substation), resulting in up to four daily car/LGV trips. There will also be additional infrequent trips associated with monthly or annual maintenance/inspections or repairs when required. Staff vehicles and those used for maintenance are primarily expected to be pickup trucks and vans, with HGVs rarely accessing the site for the replacement of equipment. Therefore, due to the low level of trips likely to be generated, it has been agreed to exclude operational phase transport effects from the EIA (see Section 3.8.3). The proposed permanent routes which will be used during the operational and maintenance phase are shown on **Figure 1.4.20 Kent Onshore Scheme Traffic Routes during Construction and Operation**. Further details relating to the operational and maintenance phase are set out within **Volume 1, Part 1, Chapter 4, Description of the Proposed Project**.

3.8.9.66 Whilst it is acknowledged that the Proposed Project will result in the permanent diversion of either PRoW TE26 (K-P3) or PRoW EE42 (K-P4) depending on which option for the proposed overhead lines and pylons is taken forward, the additional mitigation (K-TTAM01 and K-TTAM02) will be applicable to all phases and the likely impact is considered to be not significant, as per the findings in Table 3.8.40 for the construction and decommissioning phase. This will be reviewed as part of the ES once a final option has been identified.

3.8.10 Summary

3.8.10.1 Following the above preliminary assessment, no significant effects have been identified as a result of the Proposed Project on transport and access during any phase with the proposed mitigation in place, as all effects have either been categorised as minor adverse or negligible. As such, no additional mitigation (to that already identified) is considered to be necessary at this stage. A full assessment will nonetheless be carried out as part of the ES.

3.8.11 References

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