

VOLUME 1: CHAPTER 13: TRAFFIC AND TRANSPORT

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Figures (Volume 2 of this EIA Report)

All associated figures to this Chapter are contained within Appendix 13.1.

Appendices (Volume 4 of this EIA Report)

Appendix 13.1: Transport Assessment

13. TRAFFIC AND TRANSPORT

13.1 Executive Summary

- 13.1.1 A review of the transport and access issues associated with the Proposed Development has been undertaken.
- 13.1.2 The assessment considers the direct effects during construction on increased traffic flows in the surrounding Study Area, including upon local road users and local residents. A review of the potential effects of the Proposed Development on severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation and accidents / road safety has been undertaken. The operational phase of the Proposed Development would not have any significant effects on the public road network as a result of the low levels of traffic that are forecast and is therefore scoped out of the assessment.
- 13.1.3 The assessment confirms the predicted residual effects (i.e. after the implementation of mitigation) would be minor in nature and that they would not be significant. There are no long-term detrimental transport or access issues associated with the construction phase of the Proposed Development.

13.2 Introduction

- 13.2.1 This Chapter considers the potential traffic and transport effects, including cumulative effects, of the Proposed Development during construction and operation.
- 13.2.2 The specific objectives of the Chapter are to:
- Describe the existing access network and transport baseline;
 - Describe the assessment methodology and significance criteria used in completing the impact assessment;
 - Describe the potential effects, including direct, indirect and any potential cumulative effects;
 - Describe the mitigation measures proposed to address likely significant effects; and
 - Assess the residual effects remaining following the implementation of mitigation.
- 13.2.3 An overview of the effects of the traffic movements has been considered in accordance with the Institute of Environmental Management and Assessment (IEMA) Environmental Assessment of Traffic and Movement (2023)¹. The document is referred to as the "IEMA Guidelines" in this Chapter.
- 13.2.4 The Chapter is supported by **Appendix 13.1** that contains the Transport Assessment. This is referenced in the body of the text, where relevant.
- 13.2.5 The assessment was undertaken by Pell Frischmann Consultants Limited. A table presenting relevant qualifications and experience of key staff involved in the preparation of this Chapter is included in **Appendix 5.1**, contained within **Volume 4** of this EIA Report.

13.3 Scope of the Assessment

Effects Assessed in Full

- 13.3.1 This assessment focusses on the effects of construction of the Proposed Development upon those receptors identified during the review of desk-based information and field surveys.
- 13.3.2 The assessment has fully considered the transport and access issues arising from the construction phase of the Proposed Development. This Chapter considers effects on the following:

¹ IEMA (2023), Environmental Assessment of Traffic and Movement, Institute of Environmental Management and Assessment.

- Direct effects during construction on traffic flows in the surrounding Study Area;
- Direct effects upon local road users; and
- Indirect effects upon local residents due to an increase in construction traffic.

13.3.3 Where the predicted effects meet the criteria set out in the IEMA Guidelines, a review of the effects on severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation, and accidents / road safety has been undertaken.

13.3.4 The assessment is based on the Proposed Development as described in **Chapter 3: The Proposed Development**.

Study Area

13.3.5 The Study Area encompasses the area over which all desk-based and field data were gathered to inform the assessment presented in this Chapter. The Study Area comprises the public road links that are expected to experience increased traffic flows associated with the construction of the Proposed Development and are assessed as part of this assessment. These are identified below (see also **Appendix 13.1**):

- B966, southwest of Fettercairn;
- C2K Lang Stracht;
- B974 Cairn o' Mount; between the proposed construction access and Banchory;
- C7K between Drumtochty and Auchenblae;
- Kintore Street in Auchenblae;
- C1K between Mains of Glenfarquhar and Stonehaven;
- A957 Slug Road between Stonehaven and Crathes;
- A93 between Banchory and Crathes;
- B9077 between the A957 and the Chap Quarries; and
- A90 between Stonehaven and Stracathro.

13.3.6 The extent of the Study Area is illustrated in **Figure 3 of Appendix 13.1**.

13.4 Consultation

Consultation Responses

13.4.1 The scope of the assessment has been determined through a combination of professional judgement, reference to relevant guidance documents (see below **Section 13.5**), and consultation with stakeholders through pre-application advice and a formal EIA scoping process. **Table 13.1**, below, summarises the scoping responses relevant to transport and access matters and provides information on where and / or how points raised have been addressed in this assessment.

13.4.2 Full details on the consultation responses and scoping opinion can be reviewed in **Chapter 4: Scope and Consultation** and associated appendices.

Table 13.1: Consultation Responses

Consultee	Summary of Consultation Response	Response to Consultee
Transport Scotland (17 th January 2025)	Content with the proposed methodology and approach. Requests that an impact review on the A90 is undertaken.	Noted on the approach. The A90 has been included in the assessment.
Aberdeenshire Council (4 th February 2025)	Construction parking details are requested.	Construction parking details will be detailed in the Construction Traffic Management Plan (CTMP). No on-street parking on public roads will be permitted.
	Details should be provided of the following; vehicle types and frequency of the access and egress, junction dimensions, drainage, gradients, materials, swept path analysis, visibility splays and proposed construction traffic routes. The internal construction traffic route should be detailed from the public road, including the turning and passing provisions.	Vehicle estimates for the construction phase and their routing have been provided in Appendix 13.1: Transport Assessment . Where required junction upgrades have been detailed by The Applicant and are provided in Appendix 13.1: Transport Assessment . The internal layout is illustrated in Figure 2 of Appendix 13.1: Transport Assessment .
	Details of how the construction traffic interaction with the existing public roads will be managed, passing provision, visibility windows, road widening and any associated improvements should be provided. An appraisal of the roads along the delivery route will also be required	Vehicle estimates for the construction phase and their routing have been provided in Appendix 13.1: Transport Assessment . Descriptions of the road network used for construction access is provided in Section 5.3 of Appendix 13.1: Transport Assessment .

Effects Scoped Out

- 13.4.3 The potential for the Proposed Development to give rise to traffic impacts would be limited to the construction phase only. No impacts are anticipated during the operational phase as the Proposed Development would not generate any new traffic, apart from during infrequent maintenance activities. On this basis, an operational traffic assessment is scoped out of this assessment in its entirety.
- 13.4.4 As described in **Chapter 3: The Proposed Development**, it is anticipated that the effects associated with the construction phase would be representative of a worst-case scenario when compared to the decommissioning effects on transport matters. Moreover, planning permission is being sought in perpetuity. As such, a separate assessment of potential decommissioning effects is not included in this Chapter.

13.5 Policy and Guidance

Policy

13.5.1 The following policies of relevance to the assessment have been considered:

- National Planning Framework 4²; and
- Aberdeenshire Local Development Plan³.

Guidance

13.5.2 This assessment is carried out in accordance with the principles contained within the following documents:

- Planning Advice Note (PAN) 75 - Planning for Transport⁴;
- Environmental Assessment of Traffic and Movement¹;
- The Guidelines for the Environmental Assessment of Road Traffic⁵;
- Guidelines for Environmental Impact Assessment⁶;
- LA 104 Environmental Assessment and Monitoring (Revision 1) of the Design Manual for Roads and Bridges⁷;
- Design Manual for Roads and Bridges, Volume 15, Part 5 'The NESA Manual'⁸;
- Transport Assessment Guidance⁹.

13.6 Assessment Methodology

Desk Based Research and Data Sources

13.6.1 To inform the baseline assessment and to establish the nature of the surrounding road and footway infrastructure, the following desktop reviews have been undertaken:

- Review of relevant transport policy;
- Collection of existing traffic data from the UK Department for Transport (DfT)¹⁰ and Transport Scotland¹¹ databases and the consented Glendye Wind Farm EIA Report and other SSEN Transmission projects in the area;

2 Scottish Government (2023), National Planning Framework 4.(online) Available at:

<https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2023/02/national-planning-framework-4/documents/national-planning-framework-4-revised-draft/national-planning-framework-4-revised-draft/govscot%3Adocument/national-planning-framework-4.pdf> (last accessed 08/10/2025)

3 Aberdeenshire Council (2023): Aberdeenshire Local Development Plan (online) Available at:

<https://online.aberdeenshire.gov.uk/ldpmedia/LDP2021/AberdeenshireLocalDevelopmentPlan2023IntroductionAndPolicies.pdf> (last accessed 08/10/2025)

4 Scottish Government (1997): Planning Advice Note 75, Planning for Transport. (online) Available at:

<https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2005/08/planning-advice-note-pan-75-planning-transport/documents/0016795-pdf/0016795-pdf/govscot%3Adocument/0016795.pdf> (last accessed 08/10/2025)

5 IEMA (1993) The Guidelines for the Environmental Assessment of Road Traffic. (online) Available at:

<https://www.iema.net/media/5mrmquib/iema-report-environmental-assessment-of-traffic-and-movement-rev07-july-2023.pdf> (last accessed 08/10/2025)

6 IEMA (2005). Guidelines for Environmental Impact Assessment.

7 Highways England, Transport Scotland, Welsh Government, Department for Infrastructure (2019). LA 104 Environmental Assessment and Monitoring.

8 Transport Scotland (2013). The NESA Manual.

9 Transport Scotland (2012). Transport Assessment Guidance. (online) Available at:

https://www.transport.gov.scot/media/4589/planning_reform_-_dpmtag_-_development_management_dpmtag_ref__17_-_transport_assessment_guidance_final_-_june_2012.pdf (last accessed 08/10/2025)

10 UK Government, Road Traffic Statistics. (online) Available at: <https://www.gov.uk/government/collections/road-traffic-statistics> (last accessed 08/10/2025)

11 Transport Scotland, Traffic Data. (online) Available at: <https://www.transport.gov.scot/our-approach/statistics/> (last accessed 08/10/2025)

- Review of Personal Injury Accident (PIA)^{12,13} data;
- Identification of sensitive locations (as defined by IEMA as settlements, schools and tourist attractions etc.) using freely available online mapping;
- Identification of any other traffic sensitive receptors in the area (including Core Paths, routes, and communities etc.) using freely available online mapping and relevant agency websites;
- Review of Ordnance Survey (OS) plans; and
- Identification of potential origin locations of construction staff and supply locations for construction material, to inform extent of local area roads network to be included in the assessment from online searches and mapping.

Field Survey

13.6.2 The following field surveys were also undertaken in late 2024 and comprised the following to inform the assessment:

- A site visit to review the general Study Area; and
- Collection of traffic flow data.

Assessment of Effects

13.6.3 The methodology adopted in this assessment involved the following key stages:

- Determination of the existing baseline established from desk studies, field survey and consultation;
- Identification and outlining of the potential effects arising from the works associated with the Proposed Development;
- Evaluation of the significance of effects on receptors;
- Identification of any additional mitigation measures to prevent, minimise, reduce or offset possible significant effects; and
- Assessment of residual effects.

Sensitivity / Importance of Receptors

13.6.4 The IEMA 'Guidelines for Environmental Impact Assessment' (2005) notes that the separate IEMA Guidelines should be used for characterising the environmental traffic and transport effects (off-site effects) and the assessment of significance of major new developments. Recent Guidelines published by the IEMA, namely 'Environmental Assessment of Traffic and Movement' (2023)¹ provides an update to the previously used guidance, 'Guidelines for the Environmental Assessment of Road Traffic' (IEMA 1993) document⁵, that should be used to characterise the environmental traffic and transport effects (off-site effects) and the assessment of significance of major new developments. The IEMA Guidelines intend to complement professional judgement and the experience of trained assessors.

13.6.5 the receptors which have been considered in this assessment are the users of the roads (comprising vehicles, cyclists, pedestrians and equestrians) within the Study Area and the locations through which those roads pass which may be susceptible to effects as a result of changes to traffic flows and compositions on these routes.

13.6.6 The 2023 IEMA Guidelines includes guidance on how the sensitivity of receptors should be assessed. Using that as a base, professional judgement was used to develop a classification of sensitivity for users based on the characteristics of roads and locations. This is summarised in **Table 13.2**.

¹² An accident on public roads which has been reported to the police and whereby someone has been injured.

¹³ CrashMap, 2025. (online) Available at: <https://www.crashmap.co.uk/Search> (last accessed 08/10/2025)

Table 13.2: Classification of Receptor Sensitivity

Receptor	Sensitivity			
	High	Medium	Low	Negligible
Users of Roads	Where the road is a minor rural road, not constructed to accommodate frequent use by Heavy Goods Vehicles (HGV). Includes roads with traffic control signals, waiting and loading restrictions, traffic calming measures.	Where the road is a local A or B class road, capable of regular use by HGV traffic. Includes roads where there is some traffic calming or traffic management measures.	Where the road is Trunk or A-class, constructed to accommodate significant HGV composition. Includes roads with little or no traffic calming or traffic management measures.	Where roads have no adjacent settlements. Includes new strategic trunk roads that would be little affected by additional traffic and suitable for Abnormal Loads and new strategic trunk road junctions capable of accommodating Abnormal Loads.
Users/ Residents of Locations	Where a location is a large rural settlement containing a high number of community and public services and facilities.	Where a location is an intermediate sized rural settlement, containing some community or public facilities and services.	Where a location is a small rural settlement, few community or public facilities or services.	Where a location includes individual dwellings or scattered settlements with no facilities.

13.6.7 It is acknowledged that there will be locations both in terms of users of roads or users / residents of locations that may not fit within one of the sensitivity classifications highlighted above. In these situations, professional judgement has been applied in the assignment of sensitivity and justification for any changes provided.

13.6.8 Where a road passes through a location such as a settlement, road users (pedestrian, cyclists, drivers etc.) are considered to be subject to the highest level of sensitivity defined either by the road or the road or location characteristics

Magnitude of Impact (Change in Traffic Flows and Composition)

13.6.9 The magnitude of change (of traffic flows and composition) has been assessed in accordance with the following rules which are outlined in the 2023 IEMA Guidelines, and are used to determine which road links within the Study Area should be considered for detailed assessment of their traffic related environmental effects in the assessment:

- Rule 1 – include highway links where traffic flows are predicted to increase by more than 30 % (or where the number of heavy goods vehicles is predicted to increase by more than 30 %); and
- Rule 2 – include any other specifically sensitive areas where traffic flows are predicted to increase by 10 % or more.

13.6.10 Examples of sensitive areas are presented in the IEMA Guidelines as hospitals, churches, schools, historical buildings, tourist attractions etc. These locations are to be assessed in relation to “Rule 2”.

Traffic Related Environmental Impacts

13.6.11 The IEMA Guidelines identify the key impacts that are most important when assessing the implications of traffic and transport impacts from an individual development. The impacts and any relevant criteria used to inform determination of levels of magnitude of these changes are discussed below:

- Severance – The IEMA Guidelines advises that, *“The Department for Transport has historically set out a range of indicators for determining the significance of severance. Changes in traffic flow of 30 %, 60 % and 90 % are regarded as producing ‘slight’, ‘moderate’ and ‘substantial’ changes in severance respectively. Although these thresholds no longer appear in the Department for Transport guidance, they have not been superseded by subsequent changes to guidance and are established through planning case law. However, caution needs to be observed when applying these thresholds as very low baseline flows are unlikely to experience severance impacts even with high percentage changes in traffic.”* (Paragraph 3.16). The IEMA Guidelines acknowledge that changes in traffic flows should be used cautiously, stating that *“the assessment of severance should pay full regard to specific local conditions, e.g. sensitivity of adjacent land uses, prevalence of vulnerable people, whether or not crossing facilities are provided, traffic signal settings, etc.”* (Paragraph 3.17).
- Driver Delay – the IEMA Guidelines note that these 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”* (Paragraph 3.20).
- Pedestrian Delay (incorporating delay to all non-motorised users) – the IEMA Guidelines advise that *“pedestrian delay and severance are closely related effects and can be grouped together. Changes in the volume, composition or speed of traffic may affect the ability of people to crossroads. In general, increases in traffic levels are likely to lead to greater increases in delay. Delays will also depend on the general level of pedestrian activity, visibility and general physical conditions of the development site.”* (Paragraph 3.24). Furthermore, the guidance advises that *“...it is not considered wise to set down definitive thresholds. Instead, it is recommended that the competent traffic and movement expert use their judgement to determine whether pedestrian delay constitutes a significant effect.”* (Paragraph 3.26).
- Non-motorised User (NMU) Amenity - the IEMA Guidelines advises that, *“The 1993 Guidelines suggest that a tentative threshold for judging the significance of changes in pedestrian amenity would be where the traffic flow (or HGV component) is halved or doubled. Although these thresholds no longer appear in Department for Transport guidance, they have not been superseded by subsequent changes to guidance and are established through planning case law.”* (Paragraph 3.30).
- Fear and Intimidation – there are no commonly agreed thresholds for estimating levels of fear and intimidation, from known traffic and physical conditions. However, as the impact is considered to be sensitive to traffic flow, changes in traffic flow of 30 %, 60 % and 90 % are regarded as producing minor, moderate and substantial changes respectively in the IEMA Guidelines (Paragraph 2.19). As such, this has been used to assess the potential impacts associated with construction activities around fear and intimidation on people in close proximity to the Proposed Development.
- Road Safety – professional judgement would be used to assess the implications of local circumstances, or factors which may elevate or lessen risks of accidents. In line with the IEMA Guidelines, those areas of collision clusters would be subject to detailed review.
- Road safety audits – It would be proposed to undertake any necessary Road Safety Audits (RSA) post consent and it is considered that this can be secured via a planning condition.
- Large loads – There are no large loads associated with the Proposed Development and as such, this has been scoped out of the assessment.

13.6.12 While not specifically identified as more vulnerable road users, cyclists are considered in similar terms to pedestrians.

13.6.13 Table 3.7 of LA104 Environmental Assessment Methodology of the Design Manual for Roads and Bridges (DMRB)⁷ sets out four levels against which the magnitude of these impacts should be assessed – major, moderate, minor and negligible. The impacts and levels of magnitude are described in **Table 13.3**.

Table 13.3: Magnitude of Impact

Magnitude	Description
Major	These effects are considered to be material in the decision-making process.
Moderate	These effects may be important but are not likely to be material factors in decision making. The cumulative effects of such factors may influence decision-making if they lead to an increase in the overall adverse effect on a receptor.
Minor	These effects may be raised as local factors. They are unlikely to be critical in the decision-making process, but may be important in improving the subsequent design of the project
Negligible	No effects or those that are imperceptible.

Significance of Effect

13.6.14 To determine the overall significance of effects, the results from the receptor sensitivity and magnitude of impact assessments are correlated and classified using a scale set out in Table 2.4 of Volume 11, Section 2, Part 5 of DMRB LA 104 Environmental Assessment and Monitoring and summarised in **Table 13.4** below.

13.6.15 The DMRB defines the potential changes in effect as follows:

- Large: These effects are considered to be material in the decision making process;
- Moderate: These effects may be important but are not likely to be material factors in decision making. The cumulative effects of such factors may influence decision-making if they lead to an increase in the overall adverse effect on a receptor;
- Slight: These effects may be raised as local factors. They are unlikely to be critical in the decision-making process, but are important in improving the subsequent design of the Proposed Development; and
- Neutral: No effects or those that are imperceptible.

Table 13.4: Significance of Effects

Receptor Sensitivity	Magnitude of Impact			
	Major	Moderate	Minor	Negligible
High	Large	Large / Moderate	Moderate / Slight	Slight
Medium	Large / Moderate	Moderate	Slight	Slight / Neutral
Low	Moderate / Slight	Slight	Slight	Slight / Neutral
Negligible	Slight	Slight	Slight / Neutral	Neutral

13.6.16 In terms of the EIA Regulations, effects would be considered of significance where they are assessed to be Large or Moderate. Where an effect could be one of Large / Moderate or Moderate / Slight, professional judgement would be used to determine which significance criterion should be applicable.

Assessment Limitations

13.6.17 The assessment is based upon average traffic flows. During the construction period, activities at the Proposed Development may fluctuate between one day and another and it is not possible to develop fully a day-by-day traffic flow estimate as no Principal Contractor has been appointed and external factors can impact upon activities on a day-by-day basis (weather conditions, availability of materials, time of year, etc).

13.6.18 Please note that variances may occur in the calculations due to rounding. These variances are not considered significant.

13.6.19 It is considered that there is sufficient information to enable an informed decision to be taken in relation to the identification and assessment of likely significant environmental effects on transport matters.

13.7 Baseline Conditions

13.7.1 Access to the Proposed Development would be taken directly from the existing public road network along the length of the Proposed Development. The locations of the construction accesses are illustrated in **Figure 2 of Appendix 13.1**.

13.7.2 A description of the local road network that would be used for access to construct the Proposed Development is detailed in **Volume 4: Technical Appendix 13.1**.

13.7.3 The proposed Study Area is based upon the road network required to access the Proposed Development and potential road routes that would be used to allow the delivery of construction materials, based upon the construction methodology developed to date.

13.7.4 Bulk materials for use in construction of the Proposed Development would be sourced from local suppliers. For the purposes of the assessment, it is assumed that material for use in the west of the Proposed Development would be sourced from suppliers in the Edzell area. Materials for use in the central and eastern sections would be sourced from suppliers located on the B9077. Construction staff working on the Proposed Development are assumed to originate from the A90 corridor. The proposed routes from these sources of material and personnel have been used to develop the Study Area.

13.7.5 The extent of the Study Area is defined by the blue lines in **Figure 3 of Volume 4: Technical Appendix 13.1**.

13.7.6 Traffic data used in the assessment has been sourced from a variety of sources, including Transport Scotland's traffic count database, The UK Department for Transport (DfT) Road Traffic database, the Glendye Wind Farm planning application, other SSEN Transmission projects in the area and bespoke traffic surveys.

13.7.7 The traffic count data allowed the traffic flows to be split into vehicle classes and the data has been summarised into cars / light goods vehicles (LGV) and heavy goods vehicles (HGVs) (i.e. all goods vehicles > 3.5 tonnes gross maximum weight).

13.7.8 A summary of the 24-hour average daily traffic for each of the count sites is presented in **Table 13.5**.

Table 13.5: 2025 Existing Traffic Conditions (24-hour Average Two Way Flows)

Ref. No.	Survey Location	Car & LGV	HGV	Total
1	B966, SW of Fettercairn	941	55	996
2	C2K, Lang Stracht	876	185	1,061

Ref. No.	Survey Location	Car & LGV	HGV	Total
3	B974 Cairn o' Mount	714	124	837
4	C7K East of Glensaugh	54	25	79
5	Kintore Street, Auchenblae	790	196	986
6	C1K west of Stonehaven	267	96	362
7	A957 Slug Road	905	311	1,216
8	A93 Banchory	3,487	489	3,977
9	A93 Crathes	6,561	299	6,861
10	B9077	3,141	149	3,289
11	A90 North of Stonehaven	12,111	1,651	13,762
12	A90 South of Stonehaven	18,337	4,845	23,182
13	A90 at Stracathro	17,424	2,419	19,843

Network Conditions: Accident Review

13.7.9 TA Guidance requires analysis of Personal Injury Accident (PIA) data on the road network in the vicinity of any development to be undertaken for at least the most recent 3 year period, or preferably 5-year period, particularly if the site has been identified as being within a high accident area. Road traffic accident data for the five-year period commencing 01 January 2019 through to the 31 December 2023 was obtained from the online resource CrashMap¹³, which uses data collected by the police about road traffic crashes occurring on British roads.

13.7.10 The statistics are categorised into three categories, namely 'slight' for damage only incidents, 'serious' for injury accidents and 'fatal' for accidents that result in a death. These are summarised in **Table 2 of Appendix 13.1**. The review of traffic accidents does not suggest any trends that could be exacerbated by the temporary introduction of construction traffic associated with the Proposed Development.

Network Conditions: Cycle & Pedestrian Network

13.7.11 The alignment of the Proposed Development does not intersect with any existing Core Paths or routes that make up the National Cycle Network. It does however cross three Scottish Hill Tracks (SHT) (SHT 196, 197 and 198).

Future Baseline

13.7.12 Construction of the Proposed Development is expected to commence in 2027, if consent is granted, and is anticipated to take up to 30 months, depending on weather conditions and ecological considerations.

13.7.13 To assess the likely effects during the construction and typical operational phase, base year flows were forecast by applying a National Road Traffic Forecast (NRTF) low growth factor to the 2025 flows given in **Table 13.5**. The NRTF low growth factor for 2025 to 2027 is 1.010. The resultant future year traffic flows are illustrated in **Table 13.6**.

Table 13.6: 2027 Baseline Traffic Conditions (Average Two Way Flows)

Ref. No.	Survey Location	Car & LGV	HGV	Total
1	B966, Southwest of Fettercairn	950	56	1,006
2	C2K, Lang Stracht	885	187	1,071
3	B974 Cairn o' Mount	721	125	846
4	C7K East of Glensaugh	54	26	80
5	Kintore Street, Auchenblae	797	198	996
6	C1K west of Stonehaven	269	97	366
7	A957 Slug Road	914	314	1,228
8	A93 Banchory	3,522	494	4,017
9	A93 Crathes	6,627	302	6,929
10	B9077	3,172	150	3,322
11	A90 North of Stonehaven	12,232	1,668	13,900
12	A90 South of Stonehaven	18,521	4,894	23,414
13	A90 at Stracathro	17,598	2,444	20,041

Please note minor variances due to rounding may occur.

Summary of Receptor Sensitivity

13.7.14A review of sensitive receptors has been undertaken within the Study Area and **Table 13.7** below details the receptors and their sensitivities for use within the impact assessment.

Table 13.7: Summary of Receptor Sensitivity

Receptor	Sensitivity	Justification
B966 Users	Medium	Where the road is capable of regular use by HGV traffic.
C2K Users	Medium	Where the road is capable of regular use by HGV traffic.
B974 Users	Medium	Where the road is capable of regular use by HGV traffic.
C7K Users	High	Where the road is a minor rural road, not constructed to accommodate frequent use by HGV.
Kintore Street Users	High	Where the road is a minor rural road, not constructed to accommodate frequent use by HGV.
C1K Users	High	Where the road is a minor rural road, not constructed to accommodate frequent use by HGV.

Receptor	Sensitivity	Justification
A957 Users	Medium	Where the road is capable of regular use by HGV traffic.
A93 Users	Low	Where the road is Trunk or A-class, constructed to accommodate significant HGV composition.
B9077 Users	Medium	Where the road is capable of regular use by HGV traffic.
A90 Users	Low	Where the road is Trunk or A-class, constructed to accommodate significant HGV composition.
B966 Residents	Low	Where a location is a small rural settlement, few community or public facilities or services.
C2K Residents	Low	Where a location is a small rural settlement, few community or public facilities or services.
B974 Residents	Low	Where a location is a small rural settlement, few community or public facilities or services.
C7K Residents	Low	Where a location is a small rural settlement, few community or public facilities or services.
Residents of Auchenblae	Medium	Where a location is an intermediate sized rural settlement, containing some community or public facilities and services.
C1K Residents	Low	Where a location is a small rural settlement, few community or public facilities or services.
A957 Residents	Low	Where a location is a small rural settlement, few community or public facilities or services.
A93 Residents	Low	Where a location is a small rural settlement, few community or public facilities or services.
Banchory Residents	High	Where a location is a large rural settlement containing a high number of community and public services and facilities
B9077 Residents	Low	Where a location is a small rural settlement, few community or public facilities or services.
A90 Residents	Low	Where a location is a small rural settlement, few community or public facilities or services.

13.7.15 As previously noted in **Paragraph 13.6.10**, examples of sensitive locations are presented in the IEMA Guidelines as locations which include: hospitals, churches, schools, historical buildings, tourist attractions for example. Based on these indicators, the following locations within the Study Area have been identified as sensitive locations and will be subject to 'Rule 2' of the IEMA Guidelines which requires a full assessment of effects if the locations are subject to an increase in 10% of traffic:

- Kintore Street / High Street / Inverurie Street in Auchenblae (collectively assessed as Kintore Street); and
- The A93 within Banchory Town Centre.

13.7.16 All other locations within the Study Area are subject to 'Rule 1' and are assessed if traffic flows (or HGV flows) on highway links are anticipated to increase by more than 30% as a result of the construction of the Proposed Development.

13.8 Embedded Mitigation

Mitigation by Design

13.8.1 Embedded mitigation to be used on the Site will include the following measures:

- Basic traffic management measures, including the provision of direction signage at the proposed access junctions for the Proposed Development; and
- The provision of improved access junctions on the C1K and passing places on the public road leading from the C1K to the Proposed Development construction areas.

13.8.2 Standard practice measures to be utilised on the Site during construction will include the following:

- Provision of a basic Construction Traffic Management Plan (CTMP), incorporating simple measures such as road cleaning facilities at the Site access and basic warning signage. The Plan will also include access routing to be observed by construction traffic; and
- Construction Staff Travel Plan, to reduce the use of single occupancy travel to and from the Site.

13.9 Assessment of Likely Significant Effects

13.9.1 This section considers the potential impacts and associated effect significance of the construction of the Proposed Development, based on the typical activities described in **Chapter 3: The Proposed Development**.

Predicted Construction Effects

13.9.2 Traffic generation for the Proposed Development is presented in **Appendix 13.1**. At the peak of construction, the Proposed Development is predicted to generate 66 car / LGV trips and 65 HGV two-way movements per day in the peak months of construction (months eight and nine).

13.9.3 The construction traffic was compared against the future baseline traffic to estimate the increase in traffic associated with the Proposed Development. **Table 13.8** illustrates the potential traffic impact of the peak months of construction activity.

Table 13.8: Traffic Impact Summary (Peak Months of Construction)

Ref. No.	Survey Location	Car / LGV	HGV	Total	Car / LGV % Increase	HGV % Increase	Total % Increase
1	B966, Southwest of Fettercairn	960	81	1,042	1.1%	45.8%	3.5%
2	C2K, Lang Stracht	895	225	1,119	1.1%	20.2%	4.5%
3	B974 Cairn o' Mount	735	142	877	1.9%	13.8%	3.7%

Ref. No.	Survey Location	Car / LGV	HGV	Total	Car / LGV % Increase	HGV % Increase	Total % Increase
4	C7K East of Glensaugh	68	38	106	25.9%	48.0%	33.0%
5	Kintore Street, Auchenblae	811	210	1,022	1.8%	6.2%	2.6%
6	C1K west of Stonehaven	283	102	385	5.2%	5.0%	5.1%
7	A957 Slug Road	928	324	1,252	1.5%	3.2%	2.0%
8	A93 Banchory	3,536	512	4,048	0.4%	3.5%	0.8%
9	A93 Crathes	6,641	319	6,960	0.2%	5.7%	0.5%
10	B9077	3,172	178	3,350	0.0%	18.2%	0.8%
11	A90 North of Stonehaven	12,248	1,668	13,916	0.1%	0.0%	0.1%
12	A90 South of Stonehaven	18,533	4,894	23,426	0.1%	0.0%	0.1%
13	A90 at Stracathro	17,634	2,456	20,090	0.2%	0.5%	0.2%

Please note minor variances due to rounding may occur.

13.9.4 The total traffic movements are not predicted to increase by more than 5.1% on the whole Study Area network, with the exception of the C7K. This is significantly less than the average daily variance in traffic flows (+ / -10%) that naturally occurs. The construction phase is transitory in nature and the peak of construction activities is short-lived, occurring over a relatively short timeframe when taking account of the whole construction programme.

13.9.5 The increase in traffic on the C7K is significant due to the relatively low traffic flows on this road. The increase in traffic however is 26 movements per day (13 inbound and 13 outbound), equating to circa 2.5 vehicles per hour at the peak of construction activities.

13.9.6 In accordance with the IEMA Guidelines Rules 1 and 2, and based on the construction traffic data shown in **Table 13.7**, detailed assessments have been undertaken on the following receptors:

- B966 (Medium Sensitivity); and
- C7K (High Sensitivity)

13.9.7 The assessment for Users and Residents of both these roads has been determined using the rules and thresholds previously discussed. **Table 13.9** summarises the significance on the receptors during the construction phase.

Table 13.9: Construction Phase Effects

Receptors	Potential Impact	Magnitude	Significance of Effect	Comment
B966 Users	Severance	Minor	Slight (Not significant)	The increase in HGV traffic has triggered the detailed assessment, however the actual increase in overall traffic is below 4%.
	Driver Delay	Minor	Slight (Not significant)	The increase in HGV traffic has triggered the detailed assessment, however the actual increase in overall traffic is below 4%. The increase in actual traffic numbers is minor and as such significant delays are not predicted.
	Pedestrian Delay	Minor	Slight (Not significant)	There are no dedicated pedestrian facilities on the road and as such the impact is consider minor.
	Non-motorised User (NMU) Amenity	Minor	Slight (Not significant)	NMU use on the road is limited due to a lack of facilities and designations. As such, the impact is considered minor.
	Fear & Intimidation	Minor	Slight (Not significant)	The increase in HGV traffic has triggered the detailed assessment, however the actual increase in overall traffic is below 4%.
	Road Safety	Minor	Slight (Not significant)	The review of traffic accidents did not identify any trends on the road. As such, the impact is considered minor.
C7K Users	Severance	Minor	Moderate / Slight (Not significant)	The increase in total traffic is 33%, while the increase in HGV traffic is 48%. Whilst the percentage increase could be considered high, the actual increase in the number of vehicles is low and as such significant effects on severance are not predicted. The effect is therefore considered to be minor.
	Driver Delay	Minor	Slight (Not significant)	The increase in total traffic is 33%, while the increase in HGV traffic is 48%. Whilst the percentage increase could be considered high, the actual increase in the number of vehicles is low and as such significant delays are not predicted.
	Pedestrian Delay	Minor	Slight (Not significant)	There are no dedicated pedestrian facilities on the road and as such the impact is consider minor.
	Non-motorised User (NMU) Amenity	Minor	Slight (Not significant)	NMU use on the road is limited due to a lack of facilities and designations. As such, the impact is considered minor.
	Fear & Intimidation	Minor	Slight (Not significant)	The increase in total traffic is 33%, while the increase in HGV traffic is 48%. Whilst the percentage increase could be considered high, the actual increase in the number of

Receptors	Potential Impact	Magnitude	Significance of Effect	Comment
				vehicles is low and as such the impact is considered minor.
	Road Safety	Minor	Slight (Not significant)	The review of traffic accidents did not identify any trends on the road. As such, the impact is considered minor.

13.9.8 The assessment of significance suggests that no significant effects are predicted and that no further mitigation measures will be required to accommodate the predicted peak construction traffic flows.

13.10 Cumulative Effects

13.10.1 With regards to transport impacts, only committed schemes, i.e. those that have planning approval, can be considered in a cumulative effects review. There are a number of significant traffic generating consented schemes that are committed and are located close to or within the Study Area for this assessment. These are:

- Glendye Wind Farm (Energy Consents Unit (ECU) ref: ECU00000676);
- Fetteresso Wind Farm (ECU ref: ECU00001851);
- Craig Neil Wind Farm. (Planning ref: APP/2018/0993); and
- Hydroglen Green Hydrogen Production Facility (Glensaugh Research Farm - The James Hutton Institute) (Planning ref: APP/2023/2335).

13.10.2 There are also other schemes in the planning system, that whilst not determined, would also increase traffic volumes on the Study Area network. These include the proposed Kintore to Tealing 400 kV OHL and Hurlie 400 kV Substation projects. As these schemes have not been determined, they are not committed and cannot be included in a cumulative assessment.

13.10.3 Traffic data from the peak of construction activities from all four committed schemes has been compiled and a future year combined baseline assessment undertaken. The revised impact, taking into account committed schemes, is provided in **Table 13.10**.

Table 13.10: Cumulative Traffic Impact Summary (Peak Months of Construction)

Ref. No.	Survey Location	Car / LGV	HGV	Total	Car / LGV % Increase	HGV % Increase	Total % Increase
1	B966, Southwest of Fettercairn	1,013	156	1,169	1.0%	16.4%	3.0%
2	C2K, Lang Stracht	948	287	1,234	1.1%	13.2%	3.9%
3	B974 Cairn o' Mount	721	125	846	1.9%	13.8%	3.7%
4	C7K East of Glensaugh	85	64	149	16.4%	19.3%	17.7%

Ref. No.	Survey Location	Car / LGV	HGV	Total	Car / LGV % Increase	HGV % Increase	Total % Increase
5	Kintore Street, Auchenblae	828	236	1,065	1.7%	5.2%	2.5%
6	C1K west of Stonehaven	269	97	366	5.2%	5.0%	5.1%
7	A957 Slug Road	986	411	1,397	1.4%	2.5%	1.7%
8	A93 Banchory	3,522	494	4,017	0.4%	3.5%	0.8%
9	A93 Crathes	6,627	309	6,936	0.2%	5.6%	0.4%
10	B9077	3,224	240	3,464	0.0%	11.4%	0.8%
11	A90 North of Stonehaven	12,232	1,675	13,907	0.1%	0.0%	0.1%
12	A90 South of Stonehaven	18,550	4,907	23,456	0.1%	0.0%	0.1%
13	A90 at Stracathro	17,691	2,583	20,273	0.2%	0.5%	0.2%

Please note minor variances due to rounding may occur.

13.10.4 Incorporating committed development traffic into the baseline for the cumulative assessment reduces the apparent traffic impact attributable to the Proposed Development. However, as there are no identified road capacity constraints, further consideration of cumulative traffic effects is not necessary.

13.11 Mitigation

Mitigation During Construction

Construction Traffic Management Plan

13.11.1 Whilst no significant impacts are predicted, the Applicant wishes to demonstrate the very highest standards in mitigation and is proposing a detailed Construction Traffic Management Plan (CTMP) in addition to the basic measures assumed within the assessment (see **Section 13.8**).

13.11.2A CTMP is proposed to help reduce the negligible traffic impact of the construction phase on the Study Area. This is not required under the assessment to mitigate what might otherwise have been a significant adverse effect, but is proposed to further reduce any transport and access issues on the network.

13.11.3 The following measures would be implemented through a CTMP during the construction phase. The CTMP would be agreed with Aberdeenshire Council, through a condition to the section 37 consent, prior to construction works commencing:

- Where possible the detailed design process would minimise the volume of material to be imported to Site to help reduce HGV numbers;
- A Site worker Travel Plan, including transport modes to and from the work Site (including pick up and drop off times);
- All materials delivery lorries (dry materials) should be sheeted to reduce dust and prevent spillage on public roads;
- Specific training and disciplinary measures should be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway;
- Wheel cleaning facilities may be established at the Site entrances, depending on the views of Aberdeenshire Council;
- Normal construction working hours would be limited to between the following hours:
 - March to September – 07.00 to 19.00 – 7 days a week
 - October to February – 07.30 to 17.00 (or within daylight hours)
- Appropriate traffic management measures would be put in place at Site accesses to avoid conflict with general traffic, subject to the agreement of Aberdeenshire Council. Typical measures would include HGV turning and crossing signs and / or banksmen at the Site access and warning signs;
- Provide construction updates on the project website and or a newsletter to be distributed to residents within an agreed distance of the Site;
- Adoption of a voluntary speed limit of 20 mph for all construction vehicles travelling through local villages and towns. A further voluntary speed limit of 15 mph could be applied for all construction vehicles travelling on the C7K and tracks / unclassified roads leading from the C1K;
- All drivers would be required to attend an induction to include:
 - A toolbox talk safety briefing;
 - The need for appropriate care and speed control;
 - A briefing on driver speed reduction agreements (to slow Site traffic at sensitive locations through the villages); and
 - Identification of the required access routes and the controls to ensure no departure from these routes.

Road Condition Survey

13.11.4 Video footage of the pre-construction phase condition of the construction vehicles route would be recorded to provide a baseline of the state of the road prior to any construction work commencing. This baseline would inform any change in the road condition during the construction stage of the Proposed Development. Any necessary repairs would be coordinated with the Roads Authority. Any damage caused by traffic associated with the Proposed Development during the construction period that would be hazardous to public traffic would be repaired immediately.

13.11.5 Any damage to road infrastructure caused directly by construction traffic would be made good, and street furniture that is removed on a temporary basis would be fully reinstated.

13.11.6 The Principal Contractor would perform regular road edge reviews, and any debris and mud would be removed from the public carriageway to keep the road clean and safe during the initial months of construction activity, until the construction junction and immediate access track works are complete.

Access Management Plan

13.11.7 At points where temporary construction works cross SHT's, an Outdoor Access Management Plan (OAMP) would be prepared to ensure the safety of all path users and give them priority over construction traffic at crossing points (see **Appendix 12.1: Draft Outdoor Access Management Plan**).

Access Improvements

13.11.8 All access junctions would be designed and constructed in accordance with Aberdeenshire Council design standards.

Public Information

13.11.9 The Applicant and appointed Principal Contractor would ensure information is distributed through its communication team via the project website, local newsletters and social media.

Mitigation During Operation

13.11.10 Whilst operational phase impacts have been scoped out of the assessment given the low levels of traffic that are forecast, best practice measures would be put in place. This would include ensuring Site entrance roads are well maintained and monitored during the operational life of the Proposed Development. Regular maintenance would also be undertaken to keep the Site access track drainage systems fully operational and to ensure there are no run-off issues onto the public road network.

13.12 Residual Effects

13.12.1 No significant residual effects are predicted during construction of the Proposed Development. The construction traffic effects are transitory and minor in nature. No long-lasting detrimental transport or access issues are associated with the construction phase of the Proposed Development.

13.12.2 There are also no significant residual cumulative effects predicted in combination with other committed development traffic.

13.13 Summary and Conclusions

13.13.1 The Proposed Development would lead to a temporary increase in traffic volumes on the road network within the Study Area during the construction phase, but not to the extent that there would be a significant adverse effect on the receptors analysed in this assessment. Traffic volumes would fall outside the peak period of construction.

13.13.2 An assessment of average daily trips is considered an appropriate method of assessing the impact of the Proposed Development within the Study Area, as this will account for peaks and troughs during the construction programme.

13.13.3 No link capacity issues are expected on any of the roads assessed due to the additional movements associated with the Proposed Development. The effects of construction traffic are temporary in nature and are transitory.

13.13.4 The increase in traffic has been assessed as not significant in EIA terms and no thresholds for undertaking further assessments were met on the public road network. Nevertheless, a series of complementary mitigation measures and management plans have been proposed to help further reduce the impacts of locally increased traffic flows during the construction phase of the Proposed Development.