



Bloor Homes

LAND AT DOLLYMANS FARM, DOUBLEGATE LANE, RAWRETH

Environmental Statement, Volume 1, Chapter 14:
Traffic and Transport





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Transport

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14 TRAFFIC AND TRANSPORT

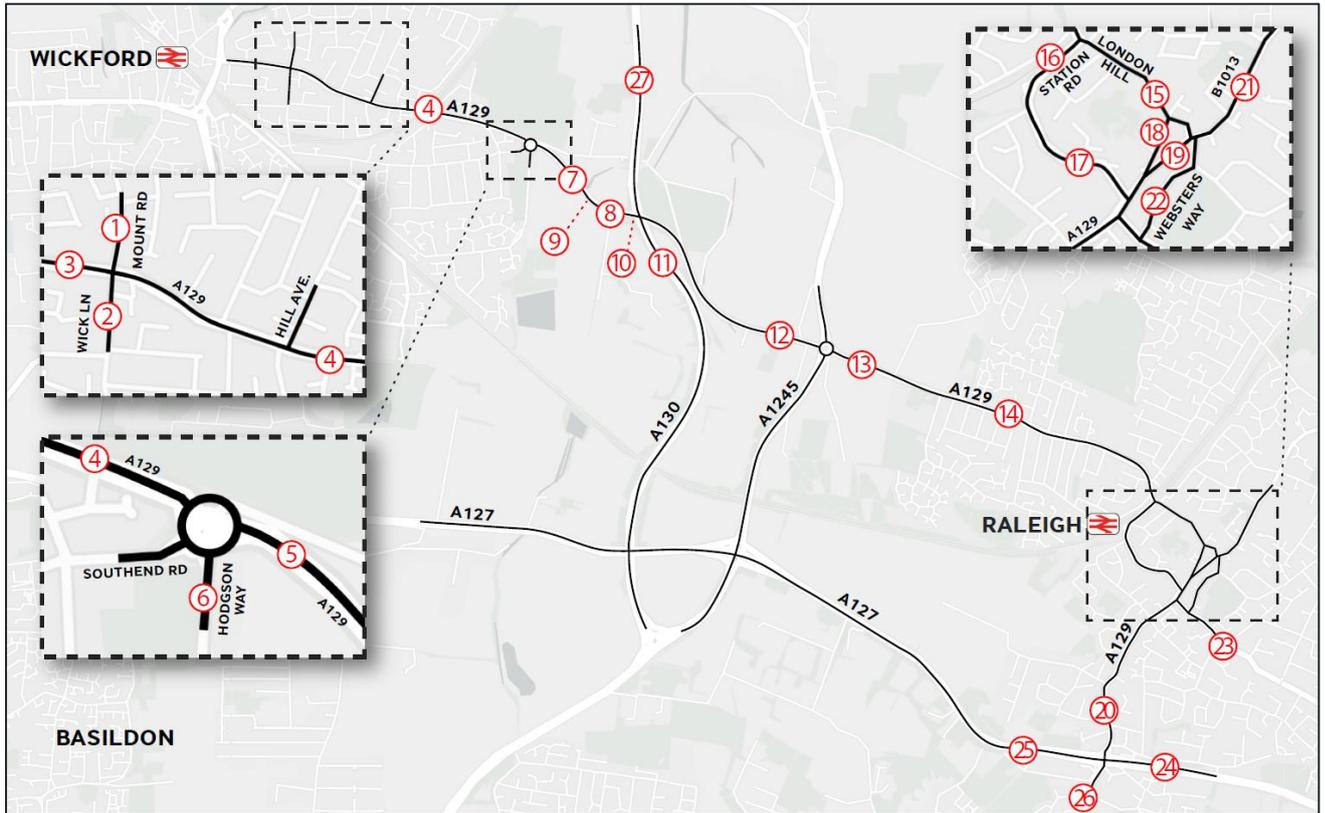
14.1 INTRODUCTION

- 14.1.1. This chapter has been prepared by RPS on behalf of the Applicant. The chapter considers the environmental effects of road traffic and transportation generated by the Proposed Development on the study area.
- 14.1.2. The chapter describes: the assessment methodology; the baseline conditions currently existing at the Site and in the surrounding area; the likely significant environmental effects; the mitigation measures required to prevent, reduce or offset any significant adverse effects; the likely residual effects after these measures have been employed; and the 'Type 2' cumulative ('inter-project') effects associated with the Proposed Development in combination with other developments within 5 km of the Site.
- 14.1.3. 'Type 1' cumulative ('intra-project') effects, which are combined effects of individual EIA topic effects on a particular receptor, are considered in **Volume 1, Chapter 16: Cumulative Effects**.
- 14.1.4. In particular, this chapter considers the likely environmental effects on the highway network in terms of severance of communities, road vehicle driver and passenger delay, non-motorised user delay, non-motorised amenity, fear and intimidation on and by road users, road user and pedestrian safety and hazardous/large loads as a result of the changes to traffic flows from the Proposed Development. It addresses the impact of the Proposed Development for each of the potential parameters and assesses the impact on identified sensitive receptors.
- 14.1.5. The data provided within this chapter is not reliant on data provided within other chapters of this ES, however, the data within this chapter is used in the assessments of Air Quality and Noise provided in Volume 1, Chapter 5 and Chapter 6 respectively.
- 14.1.6. An outline of transport-related policies and guidance is also provided, together with the methodology used in this assessment. The assessment sets out the existing baseline conditions on the transport network surrounding the Site, the future baseline, (where different), and then considers the likely impact of the Proposed Development on the transport network.
- 14.1.7. The Proposed Development makes provision for three new vehicular accesses into the site; providing access to approximately 1,300 dwellings in total. Details of the proposals are provided within **Volume 1, Chapter 2: Description and Nature of the Proposed Development**.
- 14.1.8. The Transport Assessment (TA) and Travel Plan (TP) have been submitted as part of the outline planning application. This ES chapter, TA and TP have been prepared by RPS.

14.2 STUDY AREA

- 14.2.1. The study area for the assessment of traffic and transport will focus on the highway network where potential impacts are most likely to occur. This has been informed by scoping discussions with Essex County Council (ECC) as well as the requirements for assessing traffic impacts on Air Quality and Noise.
- 14.2.2. Scoping discussions in relation to the TA were also undertaken with ECC which have helped inform the scope of the TA.
- 14.2.3. The proposed study area is shown in **Figure 14-1**.

Figure 14-1 - Study Area Assessment Links



14.2.4. The links as shown in **Figure 14-1** are summarised in **Table 14-1** and the junctions that have been assessed are summarised in **Table 14-2**. The main routes that the site connects to are the A129, the A130, the A1245 and the A127.

Table 14-1 - Study Area Assessment Links

Link Number	Link Name	Additional Information
1	Mount Road	Between Southend Road and Carlodge Avenue
2	Wick Lane	Between Glebe Road and Southend Road
3	A129 Southend Road	Between Wick Lane and Golden Jubilee Way
4	A129 Southend Road	Between Wick Lane and Hodgson Way roundabout
5	A129	Southeast of Hodgson Way roundabout
6	Hodgson Way	South of Hodgson Way roundabout

Link Number	Link Name	Additional Information
7	Proposed Secondary Access	London Road
8	Proposed Main Access	London Road
9	A129	Between two accesses
10	A129	South of main access
11	A130	South
12	A129	West of A129 / A1245 roundabout
13	A129 London Road	East of A129 / A1245 roundabout
14	A129 London Road	Near Ronald Drive
15	London Hill	Between Station Road and High Street
16	Station Road	Between London Hill and Love Lane
17	Crown Hill	Between Love Lane and High Street
18	Bellingham Lane	Between High Street and London Hill
19	High Street	Between Crown Hill and Hockley Road
20	A129 High Road	Between the A127 and A1015
21	B1013 Hockley Road	Between Websters Way and Sweyne Court
22	Webster Way	Between A1015 and High Street
23	A1015	Between A129 and Trinity Road
24	A127 Southend Arterial Road	Between A129/A127 roundabout and Daws Heath Road
25	A127 Southend Arterial Road	Between A127/A1245 roundabout and A129/A127 roundabout

Link Number	Link Name	Additional Information
26	A129 Rayleigh Road	Between A129/A127 roundabout and Stadium Way
27	A130	Between Raleigh Sput Roundabout and Hawk Hill Roundabout

Table 14-2 - Study Area Assessed Junctions

Junction Reference	Junction Name
A	A129 London Road / A1245 roundabout junction
B	A129 Southend Road / A129 / Hodgson Way roundabout junction
C	A129 Southend Road / Hill Avenue mini-roundabout junction
D	A129 Southend Road / Mount Road / Wick Lane mini-roundabout junction

14.3 CONSULTATION, SCOPE, METHODOLOGY AND SIGNIFICANCE CRITERIA

CONSULTATION

- 14.3.1. Transport Scoping discussions were held on 04 February 2025 with ECC Highways in relation to the Proposed Development. These discussions helped to inform the scope of the TA.
- 14.3.2. A public consultation was held on Friday 16 May 2025 at Rawreth Village Hall and on Saturday 17 May 2025 at Shotgate Community Hall in relation to the Proposed Development. This was part of a consultation period that ran from 6th May 2025 to 3rd June 2025 with information available on the project website.
- 14.3.3. A formal EIA Scoping Opinion (**Appendix 1-2: Environmental Impact Assessment Scoping Opinion (Volume 3)**) was received from Rochford District Council (RDC) on 17 December 2025.
- 14.3.4. A summary of the consultee responses in relation to the Proposed Development are provided in **Table 14-3**.

Table 14-3 - Summary of Consultee Responses

Consultee	Comment
ECC	Confirmation of TA scope. No ES specific comments
Public Consultation	General concerns on impact of traffic. No specific comments on ES scope.
RDD	Confirmation of TA scope. Submission should include mention of a Road Safety Audit and any relevant mitigation.

METHODOLOGY

- 14.3.5. Various sources have been used to understand traffic flows in the area. This includes historic data that has been sourced from the Department for Transport's (DfT) manual count points.
- 14.3.6. In addition, surveys have been commissioned by RPS throughout the local highway network. The surveys commissioned include Automatic Traffic Counters (ATC) and Manual Classified Counts (MCC). The ATC surveys were conducted over a one-week period, identifying the number and type of vehicles as well as their speeds. The ATC surveys (21-27 March 2025) and MCC surveys (27 March 2025) were undertaken at the following locations and junctions:

ATC

- A129 (between the A129 / Hodgson Way / Bruce Grove roundabout and the A129 / Doublegate Lane junction).
- Hodgson Way (between the A129 / Hodgson Way / Bruce Grove roundabout and Hodgson Way / Blake Hall Drive).
- Mount Road.
- Wick Lane.
- Crown Hill.
- Bellingham Lane.
- London Hill.
- Hockley Road B1013.
- A129 (between the A127 / A129 junction and the A129 / Hart Road / Daws Heath Road junction).

MCC

- A129 London Road / A1245 roundabout junction.
 - A129 Southend Road / A129 / Hodgson Way roundabout junction.
 - A129 Southend Road / Hill Avenue mini-roundabout junction.
 - A129 Southend Road / Mount Road / Wick Lane mini-roundabout junction.
- 14.3.7. The significance of potential traffic and transport effects will be determined with reference to the legislative framework and guidance detailed. The significance of the effect will be derived from measures of the magnitude (or scale) of the change and the sensitivity (or importance) of the receptors affected. Categories of sensitivity and magnitude are defined to determine the significance of the effect.
- 14.3.8. The IEMA Guidelines lists a number of environmental impacts, of which the following are assessed in this chapter:

- Severance of communities;
- Road vehicle driver and passenger delay;
- Non-motorised user delay;
- Non-motorised amenity;
- Road user and pedestrian safety;
- Road user and pedestrian safety; and
- Hazardous/ large loads.

14.3.9. These are explained in greater detail throughout this chapter. Due to the type of development, Hazardous / large loads have not been considered.

14.3.10. In terms of the assessment of transport related effects, the IEMA under 'Affected Parties' include the following as sensitive receptors:

- People at home;
- People in workplaces;
- Sensitive of vulnerable groups, including children, the elderly, and the disabled;
- Sensitive locations, such as hospitals, churches, schools, and historical buildings;
- People walking;
- People cycling;
- Open spaces, recreational sites, and shopping areas;
- Sites of ecological or nature conservation value; and
- Collision clusters and routes with road safety issues.

14.3.11. Based on the baseline conditions and methodology described, the assessed sensitivity of the highway links is provided in **Table 14-4**. The groups assessed in this category are based on those identified by IEMA under 'Affected Parties' and include the following:

- People at home.
- People in workplaces.
- Sensitive of vulnerable groups, including children, the elderly, and the disabled.
- Sensitive locations, such as hospitals, churches, schools, and historical buildings.
- People walking.
- People cycling.
- Open spaces, recreational sites, and shopping areas.
- Sites of ecological or nature conservation value.
- Collision clusters and routes with road safety issues.
- Junctions and highway link at (or over capacity).
- Sites of tourist or visitor attraction.

Table 14-4 - Sensitivity of the Assessed Highway Links

Link Ref	Link Name	Sensitive to Change	Reason
1	Mount Road	Yes	Existing residential
2	Wick Lane	Yes	Existing residential

Link Ref	Link Name	Sensitive to Change	Reason
3	A129 Southend Road	Yes	Existing residential, vulnerable groups (the elderly)
4	A129 Southend Road	Yes	Existing residential, retail facilities, church
5	A129	No	No existing properties or other sensitive users
6	Hodgson Way	Yes	Existing residential, recreational park
7	Proposed Secondary Access	No	No existing properties or other sensitive users
8	Proposed Main Access	No	No existing properties or other sensitive users
9	A129	No	No existing properties or other sensitive users
10	A129	No	No existing properties or other sensitive users
11	A130	No	A-Road link
12	A129	Yes	Existing residential, retail facilities
13	A129 London Road	Yes	Existing residential, retail facilities
14	A129 London Road	Yes	Existing residential, retail facilities
15	London Hill	Yes	Existing residential, church
16	Station Road	Yes	Existing residential, rail station
17	Crown Hill	Yes	Existing residential, church
18	Bellingham Lane	Yes	Existing residential, retail facilities
19	High Street	Yes	Retail facilities
20	A129 High Road	Yes	Existing residential, retail facilities
21	B1013 Hockley Road	Yes	Existing residential, church, school

Link Ref	Link Name	Sensitive to Change	Reason
22	Webster Way	Yes	Retail facilities
23	A1015	Yes	Existing residential, retail facilities, church, school
24	A127 Southend Arterial Road	Yes	Existing residential, retail facilities
25	A127 Southend Arterial Road	Yes	Existing residential
26	A129 Rayleigh Road	Yes	Existing residential, retail facilities
27	A130	No	A-Road link

- 14.3.12. As can be seen in **Table 14-4**, a number of sensitive links have been identified. The A129 lies in proximity to a number of receptors including existing residential units, vulnerable groups (the elderly), retail facilities and churches.
- 14.3.13. Several links in proximity to Rayleigh Town Centre are also sensitive to change. These links encompass residential areas, retail facilities, churches and schools.
- 14.3.14. Junctions and highway links at (or over) the extent of the impact varies depending on the specific effect being assessed. This determination has been guided by considerations related to severance, which propose that changes in traffic levels of 30%, 60%, and 90% should be regarded as 'slight,' 'moderate,' and 'substantial' impacts, respectively.
- 14.3.15. Consistent significance criteria are utilised across this ES, with the level of significance aligned with the DMRB guidelines LA 104, titled 'Environment assessment and monitoring' which evaluates the Project's impact on a scale ranging from Major, Moderate, Minor, Negligible and No Change. These criteria, in conjunction with the assessment of effect magnitude and receptor sensitivity, will be employed to ascertain the significance of effects.
- 14.3.16. In relation to Fear and Intimidation, the magnitude of change is dependent upon the volume of traffic, its HGV composition, speeds of vehicles and proximity to people or the lack of protection caused by such factors as narrow pavement widths. The IEMA Guidelines states that there are no commonly agreed thresholds for estimating this from known traffic and physical conditions, but it does nevertheless suggest some thresholds, based on previous research, which have been used in conjunction with the factors noted above and professional judgement. These thresholds are noted in **Table 14-5, Table 14-6 and Table 14-7**.

Table 14-5 - Fear and Intimidation Thresholds

Degree of Hazard Score	Average Traffic Flow over 18 Hour Day – all vehicles / hour 2-way (a)	Total 18-hour HGV Flow (b)	Average Vehicle Speed over 18-hour Day – mph (c)
30	+1,800	+ 3,000	>40
20	1,200 – 1,800	2,000 – 3,000	30 – 40
10	600 – 1,200	1,000 – 2,000	20 – 30
0	<600	<1,000	<20

Table 14-6 - Level of Fear and Intimidation

Level of Fear and Intimidation	Total Hazard Score (a) + (b) + (c)
Extreme	71+
Great	41 - 70
Moderate	21 - 40
Small	0 - 20
Level of fear and intimidation	Total hazard score (a) + (b) + (c)

Table 14-7 - Fear and Intimidation Magnitude of Impact

Magnitude of Change	Change in Step / Traffic Flows (AADT) from Baseline Conditions
High	Two step change in level
Medium	One step change in level, but with >400 veh increase in average 18hr AV two-way all vehicle flow; and / or >500 HV increase in total 18hr HV flow
Low	One step change in level with <400 veh increase in average 17hr AV two-way all vehicle flow; and / or <500 HV increase in total 18hr HV flow
Negligible	No change in step changes

14.3.17. **Table 14-8** is extracted from DMRB, Environmental Assessment and Monitoring (LA 104). The significance of the effect is determined by the environmental value or sensitivity of the receptor or resource and the magnitude of the project's impact. The sensitivity categories for the receptor are established based on the importance and rarity of each receptor. The impact's magnitude is contingent on the quality level and extent in relation to the change resulting from the project.

Table 14-8 - Significance Matrix

		Magnitude of Impact (degree of change)				
		No Change	Negligible	Minor	Moderate	Major
Environmental Value (sensitivity)	Very High	Neutral	Slight	Moderate or large	Large or very large	Very large
	High	Neutral	Slight	Slight or moderate	Moderate or large	Large or very large
	Medium	Neutral	Neutral or slight	Slight	Moderate	Moderate or large
	Low	Neutral	Neutral or slight	Neutral or slight	Slight	Slight or moderate
	Negligible	Neutral	Neutral	Neutral or slight	Neutral or slight	Slight

14.3.18. Examples illustrating the implications of each significance level outlined in **Table 14-8** for Transport and Access assessment are provided as follows:

- **Very large:** This level of impact would result in significant changes in vehicle movements, particularly for HGVs, and there would be very limited pedestrian provisions, such as no footway provision or crossing facilities available. Drivers would also experience increased delay, as would pedestrians crossing the road. The impact's location would also affect local communities and sensitive environments, such as schools and churches. Effects at this level are material in the decision-making process.
- **Large:** A large impact would involve reduced vehicle movements and delay compared to very large impact, although the percentage increase in HGV movements would still be high. There would also be an impact on pedestrians, as footway provision and crossing facilities would be limited. However, the impact on sensitive environments would be less pronounced. Effects at this level are likely to be material in the decision-making process.
- **Moderate:** A moderate impact would result in fewer HGV movements or lower traffic flows in terms of percentage increase. Suitable pedestrian facilities, including wide footways and crossing facilities, would be provided. Effects at this level can be considered to be material decision-making factors.

- **Neutral / Slight:** A neutral or slight impact would occur when the overall impact of both vehicle movements and HGV movements is very low and not perceptible to other local road users. There would be minimal delay to drivers and pedestrians, and suitable pedestrian provision, such as wide footways possibly segregated from the road and controlled crossing facilities, would be available. Effects at this level are not material in the decision-making process / no effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

14.3.19. Based on the impact levels described, the impact would be deemed 'significant' if the increase in traffic falls within the 'very large' category in terms of significance of effect. For instance, this occurs when the magnitude of impact is major, and the sensitivity of the receptors is very high or high. Alternatively, it is considered significant if the magnitude of impact is moderate and the sensitivity of the receptors is very high.

PREDICTION METHODOLOGY

14.3.20. The core process for predicting transport impacts is set out in full in the Transport Assessment. Existing sites that are good proxies for the Proposed Development are contained within a national database (TRICS). These sites are used to predict movements from new developments onto the local transport network.

14.4 LEGISLATIVE FRAMEWORK AND GUIDANCE

LEGISLATION AND REGULATION

14.4.1. There is no relevant legislation relating to the assessment of traffic and transport impacts of the Proposed Development.

PLANNING POLICY

14.4.2. The applicable planning policy is summarised as follows:

- National Planning Policy Framework (2024);
- Essex Transport Strategy (2011); and
- Rochford District Core Strategy (2011).

NATIONAL PLANNING POLICY FRAMEWORK (2024)

14.4.3. The current National Planning Policy Framework (NPPF) was updated on 12 December 2024, replacing the previous NPPF, which was updated in December 2023.

14.4.4. In Section 9 'Promoting Sustainable Transport', the 2024 NPPF sets out several transport objectives designed to facilitate sustainable development and contribute to a wider sustainability by giving people a choice about how they travel.

14.4.5. In relation to transport, the changes to the 2024 NPPF outline the requirement for a 'vision-led' approach when considering development proposals and emphasises the importance of transport considerations (patterns of movement, streets, parking, etc.) as an integral part of high-quality scheme design at the earliest stages.

14.4.6. The 2024 NPPF states the following in Paragraph 116:

“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios.”

14.4.7. This provides room for a vision-led approach and allows more consideration for sustainable, high-quality transport solutions in development proposals (as it relates to the creation of high-quality places) at the earliest stages of scheme design.

14.4.8. Furthermore, paragraph 115 states:

“In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- a) **Sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;**
- b) **safe and suitable access to the site can be achieved for all users;**
- c) **the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and**
- d) **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 through a vision-led approach.”**

14.4.9. In terms of planning applications, the NPPF states at Paragraph 117(a) that developments should:

“Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas, and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use.”

14.4.10. Paragraph 118 covers the need for Travel Plans and Transport Statements / Assessments for all developments which generate significant amounts of movement.

ESSEX TRANSPORT STRATEGY (2011)

14.4.11. The Essex Transport Strategy (ETP) outlines the vision for the transport system within Essex that supports economic growth whilst delivering the best quality of life for its residents. The plan aims to achieve five broad outcomes such as:

- Connectivity;
- Carbon reduction;
- Safety;
- Asset management; and
- Access and travel choice.

14.4.12. The challenges of achieving these outcomes lie with the implementation and adherence to the Transport strategy.

14.4.13. The relevant Transport priorities for the development taken from the ETP are as follows:

- Providing and promoting, sustainable forms of travel;
- Maintaining and improving public transport links;
- Improving cycling networks and walking routes and encouraging their greater use;
- Providing support for transport in rural areas to ensure that access is provided to employment, education, healthcare and food shopping;
- Ensuring that people in rural areas are able to access important services (including shopping, healthcare, library facilities, etc) without needing to travel long distances;
- Minimising the impact transport has on the character of our rural areas.

ROCHFORD DISTRICT CORE STRATEGY (2011)

14.4.14. The Core Strategy is the key component of the Rochford District Council Local Development Framework. The document sets out to:

“[explain] how the Council will deliver the spatial aspects of the vision set out in the Sustainable Community Strategy and the Council’s Corporate Plan, as well as how regional and national policies, including those contained within the East of England Plan, will be applied locally.”

14.4.15. Within Chapter 10 ‘Transport’, the document sets out eight objectives:

“To deliver developments that will reduce reliance on the private car, and that are well related to the public transport network;

To deliver online improvements on the east to west road networks in partnership with the Highways Authority, Essex County Council;

To identify and assess locations in the District that currently suffer from poor highway connectivity and congestion, and work with the Highways Authority to identify solutions;

To work alongside Essex County Council and other Thames Gateway authorities to support the implementation of the South Essex Rapid Transit system, in particular ensuring that SERT connects the residential area with the employment areas within Rochford District;

To ensure that all new developments including residential, employment, education, and leisure implement travel plans to reduce the reliance on the private car;

To work with Essex County Council and other organisations, such as Sustrans, to ensure that a safe, accessible, and convenient network of cycle and pedestrian routes is implemented across the District;

To aid the delivery of greenways identified in the Thames Gateway Green Grid Strategy, alongside Essex County Council and neighbouring authorities; and

To ensure appropriate car parking provisions accompany development at a level which strikes a balance between meeting the needs of motorists, ensuring that parking does not take up excessive amounts of developable land, and encouraging alternatives to car use.”

14.4.16. Policy T1 'Highways' states the following:

“Developments will be required to be located and designed in such a way as to reduce reliance on the private car. However, some impact on the highway network is inevitable and the Council will work with developers and the Highway Authority to ensure that appropriate improvements are carried out. The Council will seek developer contributions where necessary. The Council will work with the Highways Authority to deliver online improvements to the east to west road network, and improvements to the highways serving Baltic Wharf in order to sustain employment in this rural part of the District. The Council will also work with the Highways Authority to find ways to manage congestion along specific routes in the District.”

14.4.17. Policy T3 'Public Transport' covers the District's requirement that:

“Development must be well related to public transport, or accessible by means other than the private car.

In particular, large-scale residential developments will be required to be integrated with public transport and designed in a way that encourages the use of alternative forms of transport to the private car.

Where developments are not well located to such infrastructure, and alternatives are not available, contributions towards sustainable transport infrastructure will be sought.

The Council will work with developers, public transport operators and Essex County Council to ensure that new developments are integrated into the public transport system and, where necessary, public transport infrastructure is upgraded and marketing, publicity and travel incentives are provided.

The Council recognise that public transport is provided in the District as a commercial enterprise and, as such, it is important to ensure that developments are planned in a manner such that the provision of public transport to them is economically viable for operators. Nevertheless, the provision of public transport services and facilities is socially important, and contributes to equality of access to services. The Council will seek to ensure that good public transport links continue to be provided to the town centres.”

14.4.18. Regarding active travel, Policy T6 'Walking and Cycling' states that:

“The Council will work with Essex County Council, along with other organisations such as Sustrans, to ensure that a safe and convenient network of cycle and pedestrian routes is put in place to link homes, workplaces, services and town centres. Where developments generate a potential demand to travel, developers will be required to contribute to the delivery of such a network. The Council will also continue to require developers to provide facilities for cyclists at all new developments. The Council will also seek the further development of cycle paths, footpaths and bridleways that, having regard to ecological interests, open up and develop the access network alongside the District's rivers. The Council will also encourage new cycle and footpath links with neighbouring authorities.”

TECHNICAL STANDARDS AND GUIDANCE

14.4.19. This assessment has been undertaken in accordance with guidance given in the following documents:

- Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement (July 2023); and
- Design Manual for Roads and Bridges (DMRB) LA 104, Environmental Assessment and Monitoring.

14.5 ENVIRONMENTAL BASELINE

- 14.5.1. The IEMA Guidelines outlined in the Methodology section indicates that a 30% increase in traffic flow represents a reasonable threshold for including highway links in the assessment process. However, a lower threshold may be appropriate where there are higher HGV flows. Additionally, it suggests that other particularly sensitive areas should be included if traffic flows have increased by 10% or more. These sensitive areas may include accident black spots or links with high pedestrian activity and links near to educational facilities.
- 14.5.2. For this assessment, the effects of the Proposed Development will be evaluated on the links presented in **Table 14-1**. The changes in traffic composition and volume will be assessed in relation to the significance criteria.

EXISTING HIGHWAY NETWORK

- 14.5.3. Doublegate Lane is a private road which connects the A129 to the north with the A127 to the south. It provides access to the existing land uses on-site at Dollymans Farm and further south at Fanton Hall Farm. The road is gated at its southern access with the A127.
- 14.5.4. The A129 Southend Road is a two-way single carriageway road that connects Rayleigh to the east with the A132 to the west. It forms one arm of the Southend Road roundabout. The A129 Southend Road routes towards the A132 and Wickford Town Centre.
- 14.5.5. The A129 is subject to a 60mph speed limit to the east of the Hodgson Way / Southend Road roundabout.
- 14.5.6. The site's primary and secondary vehicle accesses will be taken from the A129.
- 14.5.7. Hodgson Way sits just beyond the site's western boundary and is a two-way single carriageway road, connecting the Southend Road roundabout to the north with the Wickford Business Park and Shotgate Industrial Estate to the west.
- 14.5.8. The site is located 1.8 kilometres to the northwest of the A127 / A130 Fairglen Interchange. The Fairglen Interchange lies at a key point on the regional highway network in south Essex and forms a strategic connection between the A13, A127, A130, and A1245.
- 14.5.9. The Fairglen Interchange experiences high levels of congestion during peak periods and high volumes of traffic at other times. ECC have identified safety concerns associated with a significant number of collisions that have been attributed to poor sight lines for drivers.
- 14.5.10. To address the congestion and road safety concerns raised by ECC, an improvement scheme has been developed by the Council. The scheme comprises the following elements:

- A new 'Southend Link Road' linking the A130 southbound to a new signalised junction on the A1245, where traffic must turn right (southbound).
- Widened slip roads on the eastern arms of the Fairglen Roundabout.
- Additional and longer slip lanes on both A127 on-slip roads.
- Improvements at the Rayleigh Spur Roundabout, including new traffic lights at two arms of the junction and an additional lane on the roundabout itself.
- An additional traffic lane southbound between Fairglen Roundabout and Rayleigh Spur Roundabout.
- A new bridge for pedestrians and cyclists, linking to existing routes alongside the A127.

TRAFFIC FLOWS

14.5.11. For the purposes of this assessment, data has been sourced from the DfT's manual count points and traffic survey data. The traffic data is summarised in **Table 14-9** and **Table 14-10**.

SITE ACCESS DATA

14.5.12. RPS commissioned ATC data from Advanced Transport Research (ATR) Ltd from 21 March to 27 March 2025 along the A129 in the vicinity of the proposed access junctions. A summary of this data is provided in **Table 14-9**.

Table 14-9 - Automatic Traffic Count (ATC) Data on A129 (Weekday Average)

Peak Hour	Total Vehicle Movements (HGVs)		Average 85 th Percentile Speed (mph)	
	Northbound	Southbound	Northbound	Southbound
AM Peak Hour (07:30-08:30)	856 (40)	481 (35)	47.20	47.65
PM Peak Hour (16:30-17:30)	652 (24)	661 (15)	48.06	47.42

14.5.13. **Table 14-9** shows that the volume of traffic currently using the A129 is relatively low in relation to the IEMA Guidelines, with two-way traffic movements below 1,500 vehicles per hour during peak periods. **Table 14-9** also indicates that vehicle speeds are generally lower than the signed 60mph speed limit. Additionally, the volume of HGVs using these routes is relatively low. The ATC recorded northbound percentage HGV flows of 5% and 4% in the morning and evening peak hours, and southbound percentage HGV flows of 7% and 2% in the morning and evening peak hours.

14.5.14. Traffic count data (obtained from DfT data or survey data) has been analysed for each link and can be shown in **Table 14-10**. TEMPro growth factors have been used throughout this analysis to adjust the survey data to the base year of assessment (2023).

Table 14-10 - Annual Average Daily Traffic (2023)

Link Name / Ref	24-hour Annual Average Daily Traffic (AADT)			
	All Vehicles	HGV	HGV %	Speed (mph)
1 - Mount Road	674	11	1.7%	20.7
2 - Wick Lane	1413	11	0.8%	24.8
3 - A129 Southend Road	4662	90	1.9%	30.0
4 - A129 Southend Road	9921	243	2.4%	30.0
5 - A129	13587	357	2.6%	43.3
6 - Hodgson Way	3861	348	9.0%	40.1
7 - Proposed Secondary Access	No Data (Proposed)			
8 - Proposed Main Access	No Data (Proposed)			
9 - A129	13518	355	2.6%	43.3
10 - A129	13518	355	2.6%	43.3
11 - A130	65745	3171	4.8%	70.0
12 - A129	16423	919	5.6%	40.0
13 - A129 London Road	12170	124	1.0%	30.0
14 - A129 London Road	13580	135	1.0%	30.0
15 - London Hill	1326	17	1.3%	25.7
16 - Station Road	5962	277	4.6%	26.2
17 - Crown Hill	5962	277	4.6%	26.2
18 - Bellingham Lane	1186	13	1.1%	17.8
19 - High Street	3610	256	7.1%	20.0
20 - A129 High Road	19637	401	2.0%	30.0

Link Name / Ref	24-hour Annual Average Daily Traffic (AADT)			
	All Vehicles	HGV	HGV %	Speed (mph)
21 - B1013 Hockley Road	4884	120	2.5%	23.7
22 - Webster Way	7261	298	4.1%	20.0
23 - A1015	14870	302	2.0%	20.0
24 - A127 Southend Arterial Road	63178	1936	3.1%	50.0
25 - A127 Southend Arterial Road	79083	2503	3.2%	50.0
26 - A129 Rayleigh Road	10448	725	6.9%	25.9
27 - A130	51612	3016	5.8%	70.0

PEDESTRIAN ROUTES

- 14.5.15. Hodgson Way sits just beyond the site's western boundary and provides one of the key routes between the site and existing nearby Wickford Business Park and Shotgate Industrial Estate along Hodgson Way. It also provides access to the Fulmar Way bus stops.
- 14.5.16. Footways between 1.5 – 2 metres in width run along both sides of Hodgson Way. The southern footway runs between Wethersfield Way and Hurricane Way whilst the northern footway runs between Blake Hall Drive and the Roberts Way / Hodgson Way roundabout. Aside from the Uxbridge Close / Hodgson Way junction, all footway crossings along minor roads are equipped with dropped kerbs and street lighting is present.
- 14.5.17. To the north of the site, the A129 Southend Road provides the primary route between the site and key locations including Wickford Town Centre, Shotgate local centre, Beauchamps High School, and the local centre at the junction of the A129 Southend Road and Hill Avenue. This route is served by footways between 1.5 – 2 metres in width on both sides of the A129 Southend Road between the Southend Road Roundabout Bakers Farm Close and the A132. Street lighting is present and all footway crossings across minor arms are equipped with dropped kerbs.
- 14.5.18. The Proposed Development will build upon the existing pedestrian environment and ensure direct, safe, and efficient connectivity to the external routes that provide access to key destinations, locations, and amenities for future site residents.
- 14.5.19. Nine different Public Rights of Way (PRoWs) run through the site, including various bridleways that join the A127 to the south with Southend Road / London Road junction to the north. This collection forms a north-south axis along Doublegate Lane through the site and comprises the following (from south to north):
- Shotgate 192;
 - Rawreth 55;

- Rawreth 17;
- Rawreth 60; and
- Rawreth 61.

14.5.20. The named bridleways connect to the Wickford 99 Public Footpath to the south, which provides access to Salcott Crescent and the existing paved shared footway / cycleway at Speyside Walk. This route provides direct access to Wickford Railway Station.

14.5.21. These bridleways that run through the site will be maintained and enhanced through the development proposals to provide a viable option for residents to utilise the surrounding PRoW network.

CYCLING ROUTES

14.5.22. Wickford is currently served by limited formal cycle infrastructure.

14.5.23. A segment of shared footway / cycleway runs through the south-eastern portion of Wickford between Tiree Chase and Twinstead via Speyside Walk.

14.5.24. A draft Local Cycling and Walking Infrastructure Plan (LCWIP) for the Basildon, Braintree, Chelmsford, and Colchester areas is currently within consultation phase. The LCWIP looks to introduce additional walking and cycling routes within the Wickford area to better connect Wickford and Basildon.

14.6 FUTURE BASELINE

COMMITTED DEVELOPMENT

14.6.1. It is necessary to account for the traffic generated by development proposals that are consented or allocated where there is a reasonable degree of certainty it will be provided in the next three years. The following committed developments and associated IDs (shown in **Figure 8-5: Cumulative Scheme Plan (Volume 2)**) have been considered within the vehicle traffic impact assessment for the site:

- Land at Shot Farm (22/00388/OUT) (ID8) – 342 dwellings and open space, located off Southend Road to the east of the centre of Wickford and to the west of the A130.
- Land East of Alicia Avenue (23/01018/OUT) (ID9) – 320 residential dwellings located on the northern side of A129 Southend Road.
- Larks Wood Park (24/00424/OUT) (ID10) – 302 residential dwellings and a reserved primary and preschool site, located on the southern fringe of Wickford on land immediately south of Tresco Way.

14.6.2. A review of the traffic flows for Larks Wood Park (24/00424/OUT) indicates that this committed development will not impact the junctions within the assessment network for the Proposed Development.

14.6.3. Following a review of the planning statuses of Land at Shot Farm (22/00388/OUT) and Land East of Alicia Avenue (23/01018/OUT), there appear to be significant unresolved transport issues that cannot easily be addressed. As these sites do not appear to have a reasonable degree of certainty of achieving planning permission they have not been included within the traffic flow diagrams and subsequent modelling assessments.

FUTURE YEAR ASSESSMENTS

- 14.6.4. Future year assessments have been undertaken for 2028 (predicted site completion year) and 2043 (plus 15 years post completion year). Future scenario background growth has been applied using the TEMPro database. TEMPro includes growth in housing and employment within its assumptions and is considered to take into account the committed developments within the draft Local Plan and further afield.
- 14.6.5. The traffic flows for the future 2028 and 2043 baseline scenarios on the highway network in the vicinity of the site are shown in **Table 14-11** and **Table 14-12**.

Table 14-11 - 2028 Without Proposed Development

Link Name / Ref	Speed (mph)	24hr Two-Way Vehicle Flows	18hr Two-Way Vehicle Flows	24hr HGV Flows	18hr HGV Flows
1 - Mount Road	20.7	699	613	12	10
2 - Wick Lane	24.8	1467	1286	12	10
3 - A129 Southend Road	30.0	4838	4244	93	82
4 - A129 Southend Road	30.0	10243	9031	251	221
5 - A129	43.3	14028	12306	368	323
6 - Hodgson Way	40.1	4006	3512	361	317
7 - Proposed Secondary Access	No Data (Proposed)				
8 - Proposed Main Access	No Data (Proposed)				
9 - A129	43.3	14028	12306	368	323
10 - A129	43.3	14028	12306	368	323
11 - A130	70.0	67877	59850	3274	2887
12 - A129	40.0	16956	14950	949	837
13 - A129 London Road	30.0	12533	11079	128	113
14 - A129 London Road	30.0	14020	12362	139	123

Link Name / Ref	Speed (mph)	24hr Two-Way Vehicle Flows	18hr Two-Way Vehicle Flows	24hr HGV Flows	18hr HGV Flows
15 - London Hill	25.7	1375	1206	17	15
16 - Station Road	26.2	6186	5423	287	252
17 - Crown Hill	26.2	6186	5423	287	252
18 - Bellingham Lane	17.8	1231	1079	14	12
19 - High Street	20.0	3746	3303	266	235
20 - A129 High Road	30.0	20274	17876	414	365
21 - B1013 Hockley Road	23.7	5068	4443	125	109
22 - Webster Way	20.0	7490	6604	307	271
23 - A1015	20.0	15352	13537	312	275
24 - A127 Southend Arterial Road	50.0	65227	57513	1999	1762
25 - A127 Southend Arterial Road	50.0	81648	71992	2584	2279
26 - A129 Rayleigh Road	25.9	10842	9511	752	660
27 - A130	70.0	53286	46984	3114	2746

Table 14-12 - 2043 Without Proposed Development

Link Name / Ref	Speed (mph)	24hr Two-Way Vehicle Flows	18hr Two-Way Vehicle Flows	24hr HGV Flows	18hr HGV Flows
1 - Mount Road	20.7	758	664	13	11
2 - Wick Lane	24.8	1590	1394	13	11
3 - A129 Southend Road	30.0	5253	4608	101	89

Link Name / Ref	Speed (mph)	24hr Two-Way Vehicle Flows	18hr Two-Way Vehicle Flows	24hr HGV Flows	18hr HGV Flows
4 - A129 Southend Road	30.0	11121	9806	272	240
5 - A129	43.3	15230	13361	400	351
6 - Hodgson Way	40.1	4343	3807	392	344
7 - Proposed Secondary Access	No Data (Proposed)				
8 - Proposed Main Access	No Data (Proposed)				
9 - A129	43.3	15230	13361	400	351
10 - A129	43.3	15230	13361	400	351
11 - A130	70.0	73697	64982	3555	3134
12 - A129	40.0	18409	16232	1030	908
13 - A129 London Road	30.0	13607	12029	139	123
14 - A129 London Road	30.0	15223	13422	151	133
15 - London Hill	25.7	1491	1307	19	16
16 - Station Road	26.2	6706	5879	311	273
17 - Crown Hill	26.2	6706	5879	311	273
18 - Bellingham Lane	17.8	1334	1170	15	13
19 - High Street	20.0	4060	3580	289	254
20 - A129 High Road	30.0	22012	19409	450	396
21 - B1013 Hockley Road	23.7	5494	4816	135	119
22 - Webster Way	20.0	8120	7160	333	294
23 - A1015	20.0	16669	14697	339	298

Link Name / Ref	Speed (mph)	24hr Two-Way Vehicle Flows	18hr Two-Way Vehicle Flows	24hr HGV Flows	18hr HGV Flows
24 - A127 Southend Arterial Road	50.0	70820	62445	2170	1914
25 - A127 Southend Arterial Road	50.0	88649	78165	2806	2474
26 - A129 Rayleigh Road	25.9	11772	10327	817	716
27 - A130	70.0	57855	51013	3381	2981

14.7 ASSESSMENT OF POTENTIAL EFFECTS, MITIGATION AND RESIDUAL EFFECTS

CONSTRUCTION PHASE

- 14.7.1. During the construction phase, the transport impacts of the proposed scheme include increased movement of construction vehicles in the local area. Heavy construction machinery and vehicles can cause significant wear and tear on roads, necessitating frequent maintenance and repairs. Additionally, construction activities can lead to temporary disruptions in public transportation services and routes, affecting commuters and local residents.
- 14.7.2. A review of HGV construction traffic levels has been conducted based on information from other development sites. It is predicted that there will be approximately 56 two-way HGV movements and 160 light vehicle movements per day.
- 14.7.3. Based on the criteria outlined in **Section 14.3** there are no major links adjacent to the site whereby the additional 80 light vehicles or 28 HGVs per day will create an increase of over 10%. Therefore, the construction phase of the Proposed Development is not anticipated to generate any significant effects.

Potential Effects During Construction Phase

- 14.7.1. A review of HGV construction traffic levels has been conducted based on information from other development sites. It is predicted that there will be approximately 56 two-way HGV movements and 160 two-way light vehicle movements per day. In terms of overall construction-related vehicle numbers, the impact is expected to be less significant than during the operational phase of the development, and therefore, the construction impact has not been assessed in detail.

Embedded Mitigation Measures

- 14.7.2. All HGV construction vehicles will access the site from either the primary or secondary vehicle accesses via the A129. A Construction Traffic Management Plan (CTMP) will be prepared as a condition of this application, which will include details on how the construction phase will be monitored and implemented.

- 14.7.3. Construction hours will be from 07:00 to 19:00, Monday to Friday, and from 07:00 to 13:00 on Saturday. No construction will occur outside these hours or on Bank Holidays, except in cases of emergency. Any such instances will be reported in writing to the relevant highway authority within 48 hours of their occurrence.
- 14.7.4. Traffic associated with the construction of the Proposed Development is expected to be low compared to the traffic flows on the surrounding highway network. It is anticipated that any excavated material deemed suitable will be used as part of the proposed landscaping works, leaving the delivery of construction materials and personnel as the major vehicle movements during the construction phase. However, some movements associated with transporting excavated materials may still be necessary.
- 14.7.5. Construction work on the existing road network will be conducted in accordance with the Department for Transport's Chapter 8: Traffic Safety Measures and Signs for Road Works and Temporary Situations (2009). This provides a standard of good practice for traffic management during highway construction, including the placement of traffic cones and barriers, and the use of temporary road signs and traffic lights. Pedestrian routes will be maintained or diverted with clear signage during the construction period. Barriers and signage will be provided to keep pedestrians clear of any construction works, following the guidelines in the Department for Transport's Chapter 8 manual.

Anticipated Effects of Applying the Development Parameter Range

- 14.7.6. Should the maximum parameters of the development not be fully applied, it is likely that a significant development would still be undertaken and construction traffic similar to that set out above would be required. With a development that does not reach the full parameter range the overall buildout time is likely to be less.

OPERATIONAL PHASE

- 14.7.7. Absolute numbers of vehicle trips and HGV trips generated by the Proposed Development have been analysed from the predictions set out in the Transport Assessment. HGV figures were calculated using TRICS data by extracting the proportions of the HGV out of the total vehicles. These can be seen in **Table 14-13**.

Table 14-13 - Absolute Vehicle and HGV Trips Generated by the Development (24hr AADT)

Link Name / Ref	Absolute Vehicles (AV)	HGVs
1 - Mount Road	0	0
2 - Wick Lane	28	0
3 - A129 Southend Road	952	0
4 - A129 Southend Road	1164	0
5 - A129	1438	9

Link Name / Ref	Absolute Vehicles (AV)	HGVs
6 - Hodgson Way	218	9
7 - Proposed Secondary Access	255	1
8 - Proposed Main Access	3298	80
9 - A129	1438	1
10 - A129	2141	81
11 - A130	0	0
12 - A129	1743	81
13 - A129 London Road	317	0
14 - A129 London Road	317	0
15 - London Hill	0	0
16 - Station Road	317	0
17 - Crown Hill	317	0
18 - Bellingham Lane	0	0
19 - High Street	89	0
20 - A129 High Road	79	0
21 - B1013 Hockley Road	229	0
22 - Webster Way	0	0
23 - A1015	0	0
24 - A127 Southend Arterial Road	67	16
25 - A127 Southend Arterial Road	67	16

Link Name / Ref	Absolute Vehicles (AV)	HGVs
26 - A129 Rayleigh Road	216	0
27 - A130	0	0

14.7.8. **Table 14-14** and **Table 14-15** set out the ‘with development’ flows on the study links in the future years 2028 and 2043. These tables equate to the contents of **Table 14-11** and **Table 14-12** with the predicted development flows from **Table 14-13** added.

Table 14-14 - 2028 With Proposed Development

Link Name / Ref	Speed (mph)	24hr Two-Way Vehicle Flows	18hr Two-Way Vehicle Flows	24hr HGV Flows	18hr HGV Flows
1 - Mount Road	20.7	699	613	12	10
2 - Wick Lane	24.8	1495	1310	12	10
3 - A129 Southend Road	30.0	5790	5084	93	82
4 - A129 Southend Road	30.0	11407	10058	251	221
5 - A129	43.3	15465	13574	377	331
6 - Hodgson Way	40.1	4224	3704	370	325
7 - Proposed Secondary Access	30.0	255	225	1	1
8 - Proposed Main Access	30.0	3298	2908	80	70
9 - A129	43.3	15465	13574	369	324
10 - A129	43.3	16168	14194	449	394
11 - A130	70.0	67877	59850	3274	2887
12 - A129	40.0	18698	16487	1030	908
13 - A129 London Road	30.0	12850	11359	128	113
14 - A129 London Road	30.0	14338	12642	139	123

Link Name / Ref	Speed (mph)	24hr Two-Way Vehicle Flows	18hr Two-Way Vehicle Flows	24hr HGV Flows	18hr HGV Flows
15 - London Hill	25.7	1375	1206	17	15
16 - Station Road	26.2	6504	5703	287	252
17 - Crown Hill	26.2	6504	5703	287	252
18 - Bellingham Lane	17.8	1231	1079	14	12
19 - High Street	20.0	3834	3381	266	235
20 - A129 High Road	30.0	20353	17946	414	365
21 - B1013 Hockley Road	23.7	5297	4644	125	109
22 - Webster Way	20.0	7490	6604	307	271
23 - A1015	20.0	15352	13537	312	275
24 - A127 Southend Arterial Road	50.0	65294	57580	2015	1777
25 - A127 Southend Arterial Road	50.0	81714	72059	2600	2293
26 - A129 Rayleigh Road	25.9	11058	9702	752	660
27 - A130	70.0	53286	46984	3114	2746

Table 14-15 - 2043 With Proposed Development

Link Name / Ref	Speed (mph)	24hr Two-Way Vehicle Flows	18hr Two-Way Vehicle Flows	24hr HGV Flows	18hr HGV Flows
1 - Mount Road	20.7	758	664	13	11
2 - Wick Lane	24.8	1618	1418	13	11
3 - A129 Southend Road	30.0	6205	5448	101	89

Link Name / Ref	Speed (mph)	24hr Two-Way Vehicle Flows	18hr Two-Way Vehicle Flows	24hr HGV Flows	18hr HGV Flows
4 - A129 Southend Road	30.0	12285	10832	272	240
5 - A129	43.3	16668	14629	409	359
6 - Hodgson Way	40.1	4561	3999	401	351
7 - Proposed Secondary Access	30.0	255	225	1	1
8 - Proposed Main Access	30.0	3298	2908	80	70
9 - A129	43.3	16668	14629	401	352
10 - A129	43.3	17371	15249	481	422
11 - A130	70.0	73697	64982	3555	3134
12 - A129	40.0	20152	17769	1111	980
13 - A129 London Road	30.0	13925	12309	139	123
14 - A129 London Road	30.0	15540	13702	151	133
15 - London Hill	25.7	1491	1307	19	16
16 - Station Road	26.2	7024	6159	311	273
17 - Crown Hill	26.2	7024	6159	311	273
18 - Bellingham Lane	17.8	1334	1170	15	13
19 - High Street	20.0	4149	3659	289	254
20 - A129 High Road	30.0	22092	19479	450	396
21 - B1013 Hockley Road	23.7	5723	5018	135	119
22 - Webster Way	20.0	8120	7160	333	294
23 - A1015	20.0	16669	14697	339	298

Link Name / Ref	Speed (mph)	24hr Two-Way Vehicle Flows	18hr Two-Way Vehicle Flows	24hr HGV Flows	18hr HGV Flows
24 - A127 Southend Arterial Road	50.0	70887	62511	2186	1928
25 - A127 Southend Arterial Road	50.0	88715	78232	2822	2488
26 - A129 Rayleigh Road	25.9	11988	10517	817	716
27 - A130	70.0	57855	51013	3381	2981

- 14.7.9. During the operational phase, the transport impacts gradually appear as the Proposed Development welcomes new residents, increasing the number of vehicles on the road and leading to potential for higher traffic congestion.
- 14.7.10. The increased population will also heighten the demand for public transport, requiring improvements and expansions to existing services to accommodate the new residents. There will be a greater need for efficient public transport connections to reduce reliance on private vehicles and alleviate traffic congestion. Increased demand for utilities and services will necessitate upgrades and expansions of existing infrastructure, further impacting transport networks.

Embedded Mitigation Measures

- 14.7.11. Embedded mitigation measures in the context of transportation for a proposed housing development focus on integrating strategies that minimise traffic congestion, reduce and reverse pollution, and enhance connectivity and safety. The measures which mitigate are described below.
- 14.7.12. One crucial measure is the integration of public transport. Making sure that proposed developments are designed around public transport hubs / nodes, such as bus, tram, or train stations therefore encouraging residents to use these modes of transportation. Several measures have been provided as part of the development to include access by public transport by site users as well as local residents and businesses. The proposed improvements include new bus stops, which will be served by an existing diverted bus service.
- 14.7.13. The site's access points have been developed to ensure access by bus is capable. New bus stops will be located within the site, ensuring every dwelling within the development is within a maximum of 600m walking distance of a bus stop. The internal road layout of the proposed development will also promote a bus gate, ensuring travel by bus, and further travel by rail, is an attractive mode for site users, in turn decreasing dependency on the use of single occupancy vehicles.
- 14.7.14. Providing safe and well-designed pedestrian and cycling infrastructure is also a critical area of focus. There are several walking routes through the site, meaning it can be accessed well from several entrances. The masterplan proposes connective routes throughout the site that will provide walking routes to destinations such as Shotgate Park, Shotgate Community Hall, convenience stores, including Tesco Express at Hill Avenue, and local schools, including but not limited to Beauchamps High School.

- 14.7.15. The development site will include the provision of a primary school that will serve the proposed development site and will be within walking distance. In addition, the site will include a local centre. The provision of local facilities within the development site will create a walkable neighbourhood. The masterplan includes a permeable network of walking routes connecting the site to the proposed access points, local centre, and primary school.
- 14.7.16. There is currently no footway along the A129 which borders the north of the site, until the footway on the A129 / Southend Road roundabout. As part of the external highway improvements, a shared pedestrian footway / cycleway, measuring approximately 3.5m, will be installed along this stretch of road. The shared pedestrian footway / cycleway will run from the site west to Hill Avenue, providing a connection to Beauchamps High School, as well as to the local centre which provides retail amenities. This route is to be an alternative route to the level crossing at Alicia Walk.
- 14.7.17. Internally, a high-quality internal spine road will provide multi-modal access across the site. The spine road will have a carriageway of 6.75m wide, with 3m verges on either side. A 2m footway will be provided on one side and a 3.5m shared footway / cycleway will be provided on the other.
- 14.7.18. Enhancing pedestrian connectivity within the development is crucial. Ensuring multiple entry and exit points that integrate seamlessly with the existing pedestrian network using desire lines pathways can increase pedestrian patronage.
- 14.7.19. Engaging the community and stakeholders is vital for the success of these measures. Establishing channels for community feedback on transportation issues allows for continuous improvement of plans. Educational campaigns can also inform residents about the benefits of using public transport, cycling, and walking. These measures are explained in detail within the Travel Plan.

Anticipated Effects

- 14.7.20. Based on the predicted changes in traffic flows set out in **Section 14.7**, details of the anticipated effects of the development in 2028 and 2043 are provided in **Table 14-16** and **Table 14-17**

Table 14-16 - Predicted Two-Way Traffic Impact (2028)

Link Name / Ref	24hr Flow (Vehicle / HGVs)					
	2028 Without Dev		2028 With Dev		% Increase	
	AV	HGV	AV	HGV	AV	HGV
1 - Mount Road	699	12	699	12	0.0%	0.0%
2 - Wick Lane	1467	12	1495	12	1.9%	0.0%
3 - A129 Southend Road	4838	93	5790	93	19.7%	0.0%
4 - A129 Southend Road	10243	251	11407	251	11.4%	0.0%
5 - A129	14028	368	15465	377	10.2%	2.4%
6 - Hodgson Way	4006	361	4224	370	5.4%	2.4%

Link Name / Ref	24hr Flow (Vehicle / HGVs)					
	2028 Without Dev		2028 With Dev		% Increase	
	AV	HGV	AV	HGV	AV	HGV
7 - Proposed Secondary Access	No Data (Proposed)		255	1	n/a	n/a
8 - Proposed Main Access	No Data (Proposed)		3298	80	n/a	n/a
9 - A129	14028	368	15465	369	10.2%	0.3%
10 - A129	14028	368	16168	449	15.3%	21.9%
11 - A130	67877	3274	67877	3274	0.0%	0.0%
12 - A129	16956	949	18698	1030	10.3%	8.5%
13 - A129 London Road	12533	128	12850	128	2.5%	0.0%
14 - A129 London Road	14020	139	14338	139	2.3%	0.0%
15 - London Hill	1375	17	1375	17	0.0%	0.0%
16 - Station Road	6186	287	6504	287	5.1%	0.0%
17 - Crown Hill	6186	287	6504	287	5.1%	0.0%
18 - Bellingham Lane	1231	14	1231	14	0.0%	0.0%
19 - High Street	3746	266	3834	266	2.4%	0.0%
20 - A129 High Road	20274	414	20353	414	0.4%	0.0%
21 - B1013 Hockley Road	5068	125	5297	125	4.5%	0.0%
22 - Webster Way	7490	307	7490	307	0.0%	0.0%
23 - A1015	15352	312	15352	312	0.0%	0.0%
24 - A127 Southend Arterial Road	65227	1999	65294	2015	0.1%	0.8%
25 - A127 Southend Arterial Road	81648	2584	81714	2600	0.1%	0.6%

Link Name / Ref	24hr Flow (Vehicle / HGVs)					
	2028 Without Dev		2028 With Dev		% Increase	
	AV	HGV	AV	HGV	AV	HGV
26 - A129 Rayleigh Road	10842	752	11058	752	2.0%	0.0%
27 - A130	53286	3114	53286	3114	0.0%	0.0%

Table 14-17 - Predicted Two-Way Traffic Impact (2043)

Link Name / Ref	24hr Flow (Vehicle / HGVs)					
	2043 Without Dev		2043 With Dev		% Increase	
	AV	HGV	AV	HGV	AV	HGV
1 - Mount Road	758	13	758	13	0.0%	0.0%
2 - Wick Lane	1590	13	1618	13	1.8%	0.0%
3 - A129 Southend Road	5253	101	6205	101	18.1%	0.0%
4 - A129 Southend Road	11121	272	12285	272	10.5%	0.0%
5 - A129	15230	400	16668	409	9.4%	2.2%
6 - Hodgson Way	4343	392	4561	401	5.0%	2.3%
7 - Proposed Secondary Access	No Data (Proposed)		255	1	n/a	n/a
8 - Proposed Main Access	No Data (Proposed)		3298	80	n/a	n/a
9 - A129	15230	400	16668	401	9.4%	0.3%
10 - A129	15230	400	17371	481	14.1%	20.2%
11 - A130	73697	3555	73697	3555	0.0%	0.0%
12 - A129	18409	1030	20152	1111	9.5%	7.8%
13 - A129 London Road	13607	139	13925	139	2.3%	0.0%
14 - A129 London Road	15223	151	15540	151	2.1%	0.0%

Link Name / Ref	24hr Flow (Vehicle / HGVs)					
	2043 Without Dev		2043 With Dev		% Increase	
	AV	HGV	AV	HGV	AV	HGV
15 - London Hill	1491	19	1491	19	0.0%	0.0%
16 - Station Road	6706	311	7024	311	4.7%	0.0%
17 - Crown Hill	6706	311	7024	311	4.7%	0.0%
18 - Bellingham Lane	1334	15	1334	15	0.0%	0.0%
19 - High Street	4060	289	4149	289	2.2%	0.0%
20 - A129 High Road	22012	450	22092	450	0.4%	0.0%
21 - B1013 Hockley Road	5494	135	5723	135	4.2%	0.0%
22 - Webster Way	8120	333	8120	333	0.0%	0.0%
23 - A1015	16669	339	16669	339	0.0%	0.0%
24 - A127 Southend Arterial Road	70820	2170	70887	2186	0.1%	0.7%
25 - A127 Southend Arterial Road	88649	2806	88715	2822	0.1%	0.6%
26 - A129 Rayleigh Road	11772	817	11988	817	1.8%	0.0%
27 - A130	57855	3381	57855	3381	0.0%	0.0%

14.7.21. The following sections set out the anticipated effects of the additional traffic movements on the various parameters being assessed.

ASSESSMENT OF CUMULATIVE EFFECTS

14.7.22. When considered in isolation, the environmental effects of any single project on any single receptor or resource may not be significant. However, when individual effects are considered together, the resulting cumulative effect may be significant.

14.7.23. Due to the nature of traffic growth, cumulative effects of developments in the area have been included in the future baseline flows. Consequently, cumulative effects are inherent in the assessment.

14.7.24. The assessment conducted as part of this chapter demonstrates that the roads within the assessment area will not be adversely affected by the Proposed Development, either individually or cumulatively with other developments. Therefore, there will be no significant cumulative effects.

14.8 DESCRIPTION OF LIKELY SIGNIFICANT EFFECTS

SEVERANCE EFFECTS

- 14.8.1. The significance categories are still based on the MEA (Manual of Environmental Appraisal – DfT 1983) indicators, which determine the significance of relief from severance. These can also be described in TAG Unit A3, May 2024. The identified categories are: 'slight,' indicating an increase in vehicle movements of 30%; 'moderate,' indicating an increase of 60%; and 'substantial,' indicating an increase of 90% or more.
- 14.8.2. The IEMA Guidelines sets out how to assess the magnitude of effect for severance in the following way. The guidelines states that “severance is the perceived division that can occur within a community when it becomes separated by a major traffic artery”. Additional, “changes in traffic flow of 30%, 60% and 90% are regarded as producing ‘slight’, ‘moderate’ and ‘substantial’ changes in severance respectively”. However, the guidelines acknowledges that the measurement and prediction of severance is extremely difficult (para 3.16 of IEMA).
- 14.8.3. The impact of traffic depends on various factors, including traffic volume, speeds, operational characteristics, and composition (e.g., the percentage of heavy goods vehicles).
- 14.8.4. The assessment of vehicular (including HGV) trip generation and distribution associated with the Proposed Development has been detailed in the Transport Assessment (TA).
- 14.8.5. The results in **Table 14-16** and **Table 14-17** indicate that while there will be an increase in traffic on the local highway network, no links will increase in excess of 30%. The effect of development traffic on severance is therefore negligible in all scenarios.

DRIVER DELAY

- 14.8.6. Driver delay can be determined at key junctions using standard modelling practice identifying the average delay. However, the advice identifies that such 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” (para 3.20 of IEMA).
- 14.8.7. Driver delay has been assessed for the future year of 2030 only. This is due to the peak hour assessment being extracted from the Transport Assessment that uses slightly different future years to the ES. These tables only consider the impact of the junctions in proximity to the site where noticeable effects are observed. Any junction not listed below does not have a material change in delay as a result of the Proposed Development. The average delay in seconds per vehicle in 2030 is provided in **Table 14-18**.

Table 14-18 - Predicted Driver Delay (2030)

Junction	Average Vehicle Delay per Junction (seconds)			
	2030 Without Dev		2030 With Dev	
	AM	PM	AM	PM
A129 London Road / A1245	31	48	40	145
A129 Southend Road / A129 / Hodgson Way	36	38	45	45
A129 Southend Road / Hill Avenue	47	53	58	77
A129 Southend Road / Mount Road / Wick Lane	119	106	158	147

- 14.8.8. **Table 14-18** shows the delay in seconds for the ‘without development’ and ‘with development’ scenarios for the future year of 2030. The average changes in delay per junction are less than 30 seconds for the A129 Southend Road / A129 / Hodgson Way junction and the A129 Southend Road / Hill Avenue junctions, indicating a negligible level of delay. The change in delay is also less than 30 seconds for the A129 London Road / A1245 junction in the morning peak.
- 14.8.9. The average change in delay for the A129 Southend Road / Mount Road / Wick Lane junction is 30 seconds to one minute, indicating a small level of delay. The average change in delay for the A129 London Road / A1245 junction in the evening peak is 97 seconds, indicating a medium level of delay resulting in a slight adverse effect on driver delay as a result of the proposed development prior to mitigation.
- 14.8.10. As noted with in para 3.20 of IEMA, significant effects only occur when the existing network is close to or at capacity. As observed in **Table 14-18** the existing junctions show an indication that they are at or approaching capacity resulting in a medium level of delay on the A129 London Road / A1245 junction.
- 14.8.11. Details of the long-term mitigation strategy to improve this delay is detailed in **Section 14.9**.

PEDESTRIAN DELAY

- 14.8.12. The assessment of pedestrian delay considers the delays likely to occur for pedestrians crossing the road. Most roads in the local area currently have or will have pedestrian activity.
- 14.8.13. Within the IEMA it states that pedestrian delay is the “changes in the volume, composition or speed of traffic may affect the ability of people to cross roads” (para 3.24 of IEMA). The Guidelines suggests that assessors “...use their judgement to determine whether pedestrian delay is a significant impact” (para 3.27 of IEMA). As part of this assessment, the Department for Transport's Local Transport Note 1/95, “The Assessment of Pedestrian Crossings”, has been utilised to evaluate the average time required for a person to cross a road.

14.8.14. This note provides a general guide on the average time it takes to cross a two-lane road. For able-bodied people, this is between 4-6 seconds on a typical urban road, and for elderly or disabled people, it is between 10-12 seconds.

14.8.15. All roads with existing or proposed pedestrian activity / footways have been reviewed. The results for 2025 are provided in **Table 14-19**. The maximum flow is the two-way flow for roads with two-way traffic or the one-way flow for one-way roads.

Table 14-19 - Assessment of Pedestrian Delay (2025)

Link Name / Ref	Average Pedestrian Delay			
	2025 AM Peak Hour		2025 PM Peak Hour	
	Peak Hourly Vehicle Flow	Average Gap (seconds)	Peak Hourly Vehicle Flow	Average Gap (seconds)
4 - A129 Southend Road	780	5	905	4
5 - A129	1375	3	1243	3
6 - Hodgson Way	975	4	799	5
7 - Proposed Secondary Access	0	n/a	0	n/a
8 - Proposed Main Access	98	37	125	29
9 - A129	1419	3	1310	3
10 - A129	1454	2	1363	3

14.8.16. The assessment indicates that most of the links listed are below a 6 second gap that is used as an indicator for crossing provision.

14.8.17. Pedestrian delay has been assessed for the future year of 2030 only, as shown in **Table 14-20**. This is due to the peak hour assessment being extracted from the Transport Assessment that uses slightly different future years to the ES.

Table 14-20 - Assessment of Pedestrian Delay (2030)

Link Name / Ref	Average Pedestrian Delay							
	2030 AM W/O Dev		2030 AM W Dev		2030 PM W/O Dev		2030 PM W Dev	
	Peak Hourly Vehicle Flow	Average Gap (seconds)	Peak Hourly Vehicle Flow	Average Gap (seconds)	Peak Hourly Vehicle Flow	Average Gap (seconds)	Peak Hourly Vehicle Flow	Average Gap (seconds)
4 - A129 Southend Road	816	4	935	4	946	4	1119	3
5 - A129	1439	3	1588	2	1300	3	1531	2
6 - Hodgson Way	1020	4	1045	3	835	4	880	4
7 - Proposed Secondary Access	0	n/a	33	109	0	n/a	47	77
8 - Proposed Main Access	103	35	529	7	131	27	766	5
9 - A129	1484	2	1669	2	1370	3	1730	2
10 - A129	1521	2	1763	2	1425	3	1881	2

14.8.18. The results presented in **Table 14-20** and **Table 14-21** have been used to assess the time available for a pedestrian to cross a road. **Table 14-22** provides an assessment of pedestrian crossing provision at each of the links discussed.

Table 14-21 - Assessment of Pedestrian Crossing Provision

Link Name / Ref	Period When Gap is Less than 6 Seconds	Is a Crossing Provided on the Link?	Type of Crossing Provided	New / Upgrading of Crossing Needed?
4 - A129 Southend Road	2025, 2030	Yes (at Bakers Farm Close, Hawkins Close, Hill Avenue, Tesco Express and Wick Lane Access)	Uncontrolled, signal and zebra	No
5 - A129	2025, 2030	Yes	Pegasus	Yes
6 - Hodgson Way	2025, 2030	Yes	Uncontrolled	Yes

Link Name / Ref	Period When Gap is Less than 6 Seconds	Is a Crossing Provided on the Link?	Type of Crossing Provided	New / Upgrading of Crossing Needed?
7 - Proposed Secondary Access	None	Internal crossing points to be built out under Proposed Development		
8 - Proposed Main Access	2030 (W Dev PM)	No		Yes
9 - A129	2025, 2030	Yes	Pegasus	No
10 - A129	2025, 2030	No	n/a	No – pedestrian access not required at this location as no footway or pedestrian desire line in this direction.

14.8.19. The assessment indicates that there will be a slight impact on pedestrian delay should the development proceed without new pedestrian crossing provision. Therefore, the proposed development would result in a slight adverse effect on pedestrian delay prior to mitigation. However, the requirement for the crossing is identified within Table 14.20 as a result of the existing level of vehicle movement as well as the resultant increase in vehicle movement and pedestrian and cyclists are a result of the proposed development.

14.8.20. The Proposed Development includes the provision of a new toucan crossings at the A129 Southend Road / A129 / Hodgson Way roundabout junction. This will provide a safer crossing route across Hodgson Way and Southend Road to permit pedestrian and cycle access to the A129. Further information regarding the proposed mitigation is detailed in **Section 14.9**.

14.8.21. The remainder of Wickford has a good provision of crossing points on all principal routes.

PEDESTRIAN AND CYCLE AMENITY

14.8.22. This section assesses pedestrian and cycle amenity during the opening year and future year scenarios. Pedestrian amenity is the relative pleasantness of a journey which is influenced by traffic flow, traffic composition, and the width of the pavement or its separation from traffic.

14.8.23. The IEMA Guidelines propose a tentative threshold for determining the significance of changes in pedestrian amenity, suggesting that significant changes occur when traffic (or its Heavy Goods Vehicle (HGV) component) is halved or doubled.

14.8.24. **Table 14-17** and **Table 14-18** indicate that the Proposed Development will not lead to a significant increase in the level of HGVs in the assessment area as part of the development traffic. During the construction phase, there will be an increase in HGV movements on local roads. In absolute terms, this increase is expected to be minimal, with 28 HGVs accessing the site per day.

14.8.25. Regarding vehicle movements, the highest change is on A129 Southend Road with an 8.2% uplift in total vehicle flow. Consequently, no roads are expected to experience a doubling of traffic movements compared to scenarios without development. It is therefore considered that the ‘pleasantness’ of journeys along these routes will not be adversely affected by the development traffic or the construction traffic flows. The overall effect is considered negligible.

FEAR AND INTIMIDATION

14.8.26. To assess the levels of fear and intimidation, the thresholds in the IEMA Guidelines have been used. The impact of this depends on the volume of traffic, the proportion of HGVs, and the proximity to pedestrians, as well as the lack of protection from factors such as narrow pavement widths. The Guidelines note that there are no universally agreed thresholds for estimating this impact based on known traffic and physical conditions.

14.8.27. **Table 14-5, Table 14-6 and Table 14-7** set out the fear and intimidation levels, thresholds and magnitude of impact as set out in the IEMA Guidelines. By applying the above criteria to the base and predicted traffic flows within the study area identified, the degree of hazard is assessed. The assessments are limited to links where pedestrian movement is likely. The potential impacts are shown in **Table 14-22** and **Table 14-23** for 2043.

Table 14-22 - Levels of Fear and Intimidation (2028)

Link Name / Ref	Degree of Hazard Without Development			Degree of Hazard With Development		
	Average Traffic Flow 18hr (Veh/hr)	Total 18hr HGV Flow	Average Speed	Average Traffic Flow 18hr (Veh/hr)	Total 18hr HGV Flow	Average Speed
4 - A129 Southend Road	502	221	30	559	221	30
	Small			Small		
5 - A129	684	323	43	754	331	43
	Moderate			Moderate		
6 - Hodgson Way	195	317	40	206	325	40
	Small			Small		
7 - Proposed Secondary Access	No Data (Proposed)		30	12	1	30
	Small			Small		
8 - Proposed Main Access	No Data (Proposed)		30	162	70	30

Link Name / Ref	Degree of Hazard Without Development			Degree of Hazard With Development		
	Average Traffic Flow 18hr (Veh/hr)	Total 18hr HGV Flow	Average Speed	Average Traffic Flow 18hr (Veh/hr)	Total 18hr HGV Flow	Average Speed
	Small			Small		
9 - A129	684	323	43	754	324	43
	Moderate			Moderate		
10 - A129	684	323	43	789	394	43
	Moderate			Moderate		

14.8.28. The assessments for 2028 indicate that there are no locations where the degree of hazard changes as a result of the Proposed Development.

Table 14-23 - Levels of Fear and Intimidation (2043)

Link Name / Ref	Degree of Hazard Without Development			Degree of Hazard With Development		
	Average Traffic Flow 18hr (Veh/hr)	Total 18hr HGV Flow	Average Speed	Average Traffic Flow 18hr (Veh/hr)	Total 18hr HGV Flow	Average Speed
4 - A129 Southend Road	545	240	30	602	240	30
	Small			Small		
5 - A129	742	351	43	813	359	43
	Moderate			Moderate		
6 - Hodgson Way	212	344	40	222	351	40
	Small			Small		
	No Data (Proposed)		30	12	1	30

Link Name / Ref	Degree of Hazard Without Development			Degree of Hazard With Development		
	Average Traffic Flow 18hr (Veh/hr)	Total 18hr HGV Flow	Average Speed	Average Traffic Flow 18hr (Veh/hr)	Total 18hr HGV Flow	Average Speed
7 - Proposed Secondary Access	Small			Small		
8 - Proposed Main Access	No Data (Proposed)		30	162	70	30
	Small			Small		
9 - A129	742	351	43	813	352	43
	Moderate			Moderate		
10 - A129	742	351	43	847	422	43
	Moderate			Moderate		

14.8.29. The assessments for 2043 indicate that there are no locations where the degree of hazard changes as a result of the Proposed Development. Consequently, the effect of the development on Fear and Intimidation is negligible and would have little to no impact.

ACCIDENT AND SAFETY

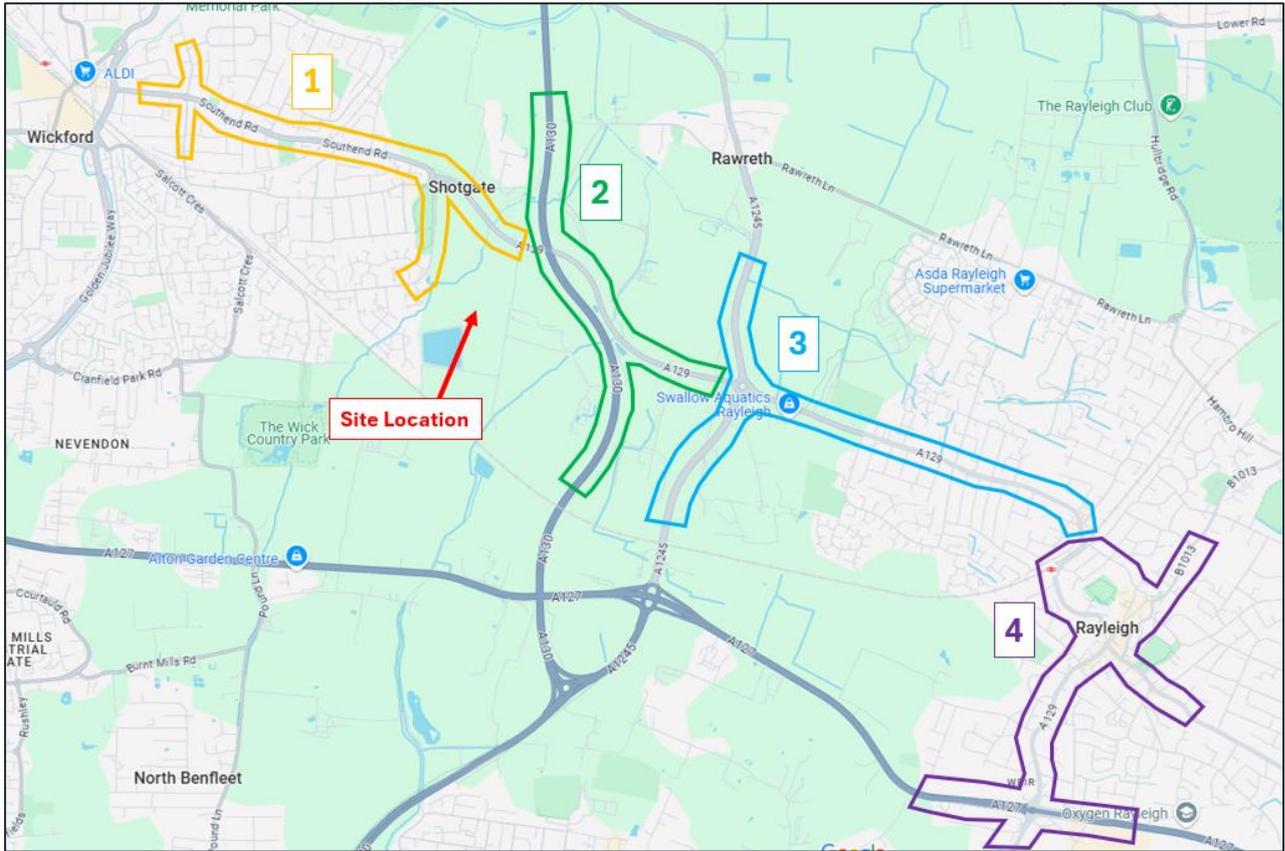
14.8.30. The IEMA states that the calculations of collision rates can be used as an approximation of the potential for road safety impacts, stating: “From knowing the expected increase in vehicle-km on different classes of road, it will be possible to make an initial simple statistical assessment of the likely increase or decrease in the number of resulting from changes in traffic flows and composition”.

14.8.31. The Guidelines state: "It is recommended that the traffic and movement expert engage with the relevant authorities to determine the best approach for determining the significance of road safety effects”.

14.8.32. Collision data has been obtained from Crashmap for the most recently available five-year period to quantitatively assess the local highway network around the site. The data has been used to generally determine whether any discernible patterns of collisions have occurred within the 60-month period between January 2019 and December 2023 relating to the layout and / or design of the local highway network.

14.8.33. The highway links considered have been broken down into five different study areas: 1, 2, 3 and 4. These areas are shown in **Figure 14-2**.

Figure 14-2 - Collision Analysis Groups



Area 1: Wickford and Shotgate

- 14.8.34. A total of 16 collisions were recorded within Area 1 during the assessed period. Of these, five were classed as serious and 11 were classed as slight.
- 14.8.35. One serious incident was recorded on A129 Southend Road approximately 200m to the west of the A129 Southend Road / Mount Road / Wick Lane mini-roundabout junction. This incident involved one vehicle. One further serious incident was recorded on Mount Road approximately 125m to the north of the A129 Southend Road / Mount Road / Wick Lane mini-roundabout junction. This incident involved one vehicle.
- 14.8.36. One serious incident was recorded on A129 Southend Road approximately 50m to the west of the A129 Southend Road / Hill Avenue mini-roundabout junction. This incident involved two vehicles. One further serious incident was recorded on A129 Southend Road approximately 50m to the west of the A129 Southend Road / Bridge Road junction. This incident involved two vehicles.
- 14.8.37. One serious incident was recorded on the A129 approximately 200m to the southeast of the A129 Southend Road / A129 / Hodgson Way roundabout junction. This incident involved three vehicles.
- 14.8.38. The frequency and location of accidents does not show any immediate concerns that need to be addressed.

Area 2: A130 and A129

- 14.8.39. A total of 14 collisions were recorded in Area 2 during the assessed period. Of these, four were classed as serious and 10 were classed as slight.

- 14.8.40. The serious incidents that occurred in Area 2 during the assessed period were recorded on the A130. The A130 is a road that experiences high vehicle flows. Of the recorded serious incidents on the A130, three incidents involved one vehicle, and one incident involved three vehicles.
- 14.8.41. The frequency and location of accidents does not show any immediate concerns that need to be addressed.

Area 3: A1245 and A129

- 14.8.42. A total of 25 collisions were recorded in Area 3 during the assessed period. Of these, six were classed as serious and 19 were classed as slight.
- 14.8.43. One serious incident was recorded at the A129 London Road / A1245 roundabout junction and involved two vehicles. One serious incident was recorded on A1245 Chelmsford Road approximately 350m to the north of the A129 London Road / A1245 roundabout junction, involving one vehicle. One further serious incident was recorded on the A1245 approximately 850m to the south of the A129 London Road / A1245 roundabout junction, involving three vehicles.
- 14.8.44. One serious incident was recorded on A129 London Road at the A129 London Road / Vernon Avenue junction. This incident involved three vehicles. Two further serious incidents were recorded on A129 London Road in the vicinity of the A129 London Road / Down Hall Road / Creswick Avenue junction. These incidents involved one and two vehicles respectively.
- 14.8.45. The frequency and location of accidents does not show any immediate concerns that need to be addressed.

Area 4: Rayleigh

- 14.8.46. A total of 54 collisions were recorded in Area 4 during the assessed period. Of these, two were classed as fatal, eight were classed as serious, and 44 were classed as slight.
- 14.8.47. Both fatal incidents were recorded on A127 Southend Arterial Road which experiences high vehicle flows. Both fatal incidents involved one vehicle respectively.
- 14.8.48. One serious incident was recorded on Station Road approximately 100m northeast of Rayleigh Train Station, involving two vehicles. One serious incident was recorded at the A129 High Road / Love Lane / Castle Road junction, involving one vehicle.
- 14.8.49. Two serious incidents were recorded on Websters Way at the Websters Way / Bull Lane junction. Both incidents involved two vehicles. One serious incident was recorded on Websters Way at the B1013 Hockley Road / Websters Way / High Street junction. This incident involved one vehicle.
- 14.8.50. Three further serious incidents were recorded on A1015 Eastwood Road. Two of these serious incidents on A1015 Eastwood Road involved two vehicles and one of these incidents involved one vehicle, respectively.

Impact on Accidents and Safety

- 14.8.51. As set out in the guidance, the assessment of accidents and safety is reliant on judgement of the assessor. Accidents on the road network are rare events and often have multiple factors, however the overriding cause is typically human error. The introduction of new accesses and additional movements inevitably introduces the potential for more accidents. However, new residents / occupiers of the site would still be making journeys on the transport network elsewhere. The access design and implementation will be subject to the Road Safety Audit process which seeks to ensure

the highway network is as safe as practicable. Consequently, it is concluded that the development will have a negligible effect on accidents and safety.

Anticipated Effects of Applying the Development Parameter Range

- 14.8.52. Should the development not be completed to the maximum parameter range the anticipated transport effects would be expected to be less. The assessment of the development is based on the maximum application content being completed. If fewer homes are completed, a proportionate reduction in traffic movements would be expected.

RESIDUAL EFFECTS

- 14.8.1. The assessment conducted in this chapter demonstrates that, with mitigation, there will be no residual effects resulting from the Proposed Development.
- 14.8.2. The analysis presented in this chapter shows that, in terms of 'Severance', the changes in traffic flows are negligible in all scenarios.
- 14.8.3. The assessment of 'Driver Delay' has indicated that the effect of development traffic on driver delay is minimal when considering the four assessed junctions. The greatest driver delay is anticipated at the A129 London Road / A1245 junction; however, these delays will be mitigated by a junction improvement scheme, ensuring that there will be no residual effects on the local highway network.
- 14.8.4. The assessment indicates that there will be a slight impact in relation to 'Pedestrian Delay' should the development proceed without new pedestrian crossing provision. The Proposed Development includes the provision of a new toucan crossing at the A129 Southend Road / A129 / Hodgson Way roundabout junction.
- 14.8.5. For 'Pedestrian and Cycle Amenity' the thresholds for change are not met on any of the assessed links. Measures are proposed to improve facilities for pedestrians and cyclists in the area.
- 14.8.6. Regarding 'Fear and Intimidation', the assessments indicate that there are no locations where the degree of hazard changes as a result of the Proposed Development. Consequently, the effect of the development on 'Fear and Intimidation' is negligible.
- 14.8.7. In relation to 'Accidents and Safety', the development will introduce new junctions and movements to the study area. However, the junctions will be subject to the various stages of Road Safety Audit before implementation.

14.8.8. **Table 14-24** identifies the residual effects associated with the Proposed Development.

Table 14-24 - Residual Effects

Impact	Description of Impact	Mitigation Measures	Residual Effect
Severance	Increase in traffic to and from the Proposed Development during operational phase	Junction improvement measures at the A129 London Road / A1245 roundabout junction, active travel and public transport infrastructure (including shared footway / cycleway on A129 Southend Road), Residential Travel Plan to encourage sustainable travel	Negligible
Driver Delay	Increase in driver delay, particularly at A129 London Road / A1245 junction	Junction improvement measures at the A129 London Road / A1245 roundabout junction, active travel and public transport infrastructure (including shared footway / cycleway on A129 Southend Road), Residential Travel Plan to encourage sustainable travel	Negligible
Pedestrian Delay	Slight impact on pedestrian delay	Proposed toucan crossing at the A129 Southend Road / A129 / Hodgson Way roundabout junction, additional crossings provided at development access points	Negligible
Pedestrian and Cycle Amenity	Thresholds for change not met	None	Negligible
Fear and Intimidation	Thresholds for change not met	None	Negligible
Accidents and Safety	Creation of development accesses introduces potential for new incidents	Accesses to be subject to Road Safety Audit process	Negligible

14.9 MITIGATION

14.9.1. To mitigate the impact of the Proposed Development, the following mitigation measures are proposed beyond the inherent mitigation as part of the proposals.

CONSTRUCTION PHASE

14.9.1. No additional mitigation measures are expected during the construction phase, however, a Construction Traffic Management Plan (CTMP) will be prepared as a condition of this application, which will include details on how the construction phase will be monitored and implemented.

OPERATIONAL PHASE

Active Travel

14.9.2. As part of the external highway improvements, a shared cycleway, measuring approximately 3.5m, will be installed along this stretch of road. The proposed off-site cycleway will run from the site and west to Hill Avenue, providing a connection to Beauchamps High School, as well as to the local centre which provides retail amenities.

14.9.3. The shared cycleway along the A129 Southend Road has been designed to adhere to the following design principles:

- 3.5m wide cycleway along section of roads with a speed limit of 40mph or higher;
- 3.0m wide cycleway along section of roads with a speed limit of 30mph or lower; and
- Where footway widening is required, carriageway width remains a minimum of 6.0m.

14.9.4. Pedestrian crossings enhancements will be completed as part of the shared cycleway route across Hodgson Way in the form of toucan crossings. Additionally, internal crossings will be provided on Doublegate Lane to ensure safe pedestrian movements on to the bridleway to the west.

14.9.5. All PRow's within the site will be maintained and upgraded as appropriate to ensure pedestrians, cyclists and horse riders can safely continue to route through the site.

Public Transport

14.9.6. Several measures have been provided as part of the development to include access by public transport by site users as well as local residents and businesses. The proposed improvements include new bus stops, which will be served by a new bus service.

14.9.7. New bus stops will be located internally, ensuring every dwelling within the development is within a 600m walking distance of a bus stop.

Highway Improvements

14.9.8. Highway mitigation has been considered for as part of the proposed development which includes the improvement scheme on the A129 London Road / A1245 roundabout to the east of the site.

14.9.9. The A129 London Road / A1245 roundabout currently experiences congestion, and mitigation would improve the capacity of the junction for both existing users as well as the proposed development trip generation. The proposals include:

- Part signalisation on the A1245 southern arm and associated circulatory.
- Three lane entry arm on the A129 London Road West arm.

14.9.10. The proposed mitigation has been modelled for the future year 2030 with the proposed development flows with the results shown in **Table 14-25**.

Table 14-25 - Predicted Driver Delay (2030)

Junction	Average Vehicle Delay per Junction (seconds)			
	2030 Without Dev		2030 With Dev (Mitigation)	
	AM	PM	AM	PM
A129 London Road / A1245	31	48	10	12

14.9.1. **Table 14-25** shows the delay in seconds for the ‘without development’ and ‘with development’ scenarios for the future year of 2030.

14.9.2. The average change previously in delay for the A129 London Road / A1245 junction in the evening peak is 97 seconds, indicating a medium level of delay. Whereas, as shown in **Table 14.26** the mitigation results in a decrease in vehicle delay to 10 seconds in the AM peak hour and 12 seconds in the PM peak hour which is considered a small level of delay. As a result it can be considered that the proposed developments impact on the A129 London Road / A1245 junction is negligible.

14.10 OPPORTUNITIES FOR ENHANCING THE ENVIRONMENT

14.10.1. As outlined in **Section 14.9**, the development proposals will provide alternatives to the private car to encourage travel to and from the development by sustainable modes.

14.10.2. The following sustainable travel initiatives have been proposed as part of the proposed development:

- Shared pedestrian cycle route along the A129 towards Beauchamps School;
- Internal spine road to support a 3.5m shared pedestrian cycle route;
- Improved pedestrian and cycle crossing points on the A129 Southend Road / Hodgson Way roundabout;
- Internal bus stops and rerouting of bus services into the site;
- Upgrade existing PRoW within the site.

14.11 LIMITATIONS AND ASSUMPTIONS

14.11.1. Manual count point data from the DfT is often based on estimations using flows from previous years. Flows obtained from the DfT may therefore be higher or lower than actual vehicle flows on a specific highway link.

14.11.2. The ATC data was obtained in March 2025 over one specific week (21-27 March 2025), and the MCC data was obtained over one specific day (27 March 2025). This data may be skewed by irregular travel patterns that may have occurred during the assessed periods. As data for only one day and week was obtained, therefore, the surveys obtained could be impacted by traffic outside standard daily variation.

14.12 SUMMARY

- 14.12.1. The assessment conducted in this chapter has been carried out in line with the guidance set out in the Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement (July 2023).
- 14.12.2. Baseline traffic conditions have been established from data sourced from the DfT's manual count points and traffic survey data undertaken in March 2025.
- 14.12.3. The assessment considers the existing conditions on the highway network including a review of speeds and flows in the study area.
- 14.12.4. Traffic growth has been used to predict future baseline traffic flows without the development proceeding in the future years of 2028 and 2043 (plus 15 years post completion year).
- 14.12.5. Traffic flow predictions for the proposed development during construction and operational phases have been generated. The details of the trip generation and distribution exercise are taken from the Transport Assessment.
- 14.12.6. The effects of the additional development traffic on the study network are considered in relation to:
- Severance;
 - Driver Delay;
 - Pedestrian Delay;
 - Pedestrian and Cycle Amenity;
 - Fear and Intimidation; and
 - Accidents and Safety.
- 14.12.7. The assessment finds that there are negligible effects on the majority of the study area; however, mitigation measures are required in relation to the following:
- Junction improvement measures at the A129 London Road / A1245 roundabout junction; and
 - Active travel and public transport infrastructure, including a shared footway / cycleway on A129 Southend Road and a toucan crossing at the A129 Southend Road / A129 / Hodgson Way roundabout junction.
- 14.12.8. Following these mitigation measures the residual effect of the development on transport is negligible.
- 14.12.9. **Table 14-26** provides an overall summary of the residual effects.



Table 14-26 - Summary of Residual Effects

Receptor / Affected Group	Value or Sensitivity (Significance) of Receptor	Activity or Impact	Embedded Design Mitigation	Magnitude / Spatial Extent / Duration / Likelihood of Occurrence	Significance of Effect	Additional Mitigation	Residual Magnitude of Impact	Significance of Residual Effect
Construction								
Study Network Users	N/A	Construction Traffic Movements	Construction Traffic Management Plan	Negligible Local Temporary Likely	Negligible	None	Negligible	Negligible
Operation								
Study Network Users	N/A	Severance	Design of the scheme	Negligible Local Permanent Likely	Negligible	Junction improvements, active travel / public transport infrastructure	Negligible	Negligible
	N/A	Driver Delay	Design of the scheme	Minor Local Permanent Likely	Slight	Junction improvements, active travel / public transport infrastructure	Negligible	Negligible
	N/A	Pedestrian Delay	Design of the scheme	Minor Local	Slight	Proposed toucan	Negligible	Negligible

Receptor / Affected Group	Value or Sensitivity (Significance) of Receptor	Activity or Impact	Embedded Design Mitigation	Magnitude / Spatial Extent / Duration / Likelihood of Occurrence	Significance of Effect	Additional Mitigation	Residual Magnitude of Impact	Significance of Residual Effect
				Permanent Likely		crossing and additional crossing points		
	N/A	Pedestrian and Cycle Amenity	Design of the scheme	Negligible Local Permanent Likely	Negligible	None	Negligible	Negligible
	N/A	Fear and Intimidation	Design of the scheme	Negligible Local Permanent Likely	Negligible	None	Negligible	Negligible
	N/A	Accidents and Safety	Road Safety Audit Process	Negligible Local Permanent Likely	Negligible	None	Negligible	Negligible



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