

## 13. TRANSPORT

The following Technical Appendices referred to in this chapter can be found at Appendix 7 to this document.

### Appendices

Appendix 7.1 - Transport Assessment (report reference: ITB13040-004A)

Appendix 7.2 – Transport Assessment Addendum (report reference: ITB13040-007A)

Appendix 7.3 – Supplementary Transport Note (report reference: ITB13040-009A)

Appendix 7.4 – Vehicle Movement Condition Technical Note (report reference: ITB13040-008)

## 8.1 Introduction

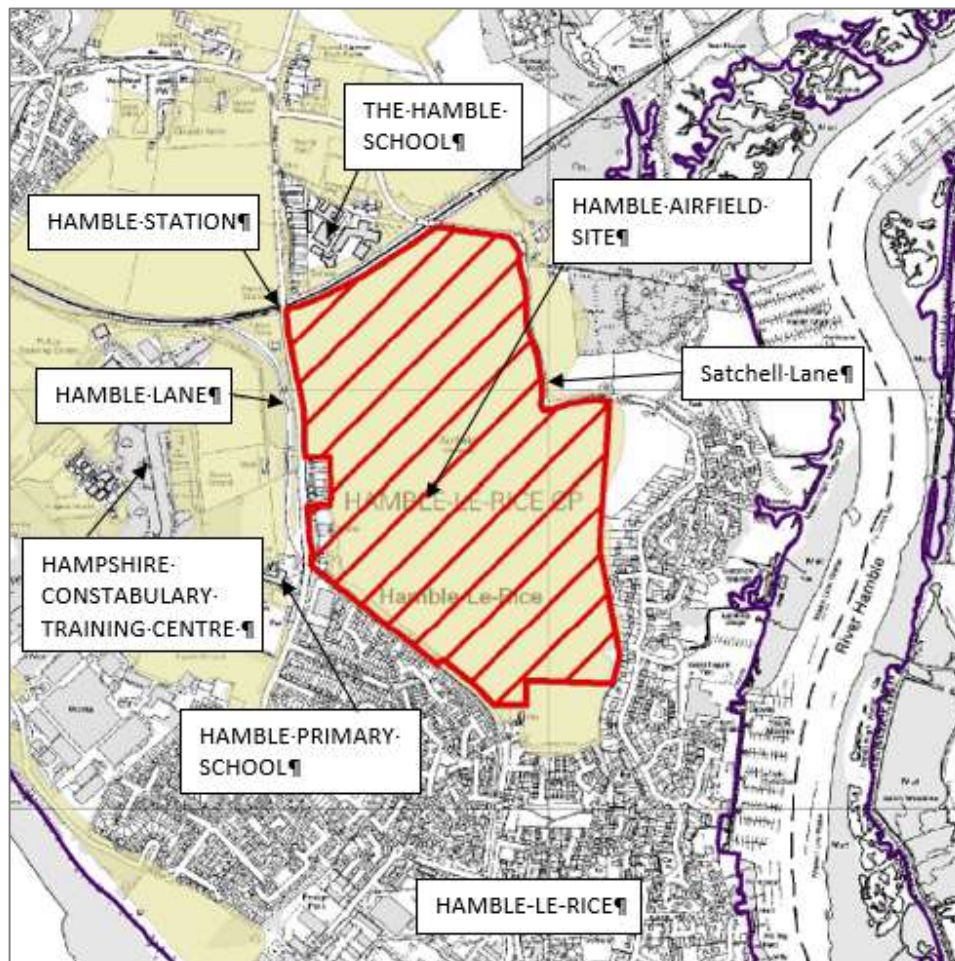
- 8.1.1 This chapter of the Environmental Statement (ES) has been prepared by i-Transport and considers the transport issues associated with the development proposals at Hamble Airfield, Hamble Lane. This ES chapter assesses the potential transport issues associated with the development proposals on the transport network and people associated with the proposed extraction and processing of aggregates, importation of inert restoration materials and restoration.
- 8.1.2 The chapter describes the assessment methodology; the baseline conditions at the Application Site and surroundings; the likely significant environmental effects; and considers whether there are any mitigation measures required to prevent, reduce or offset any significant adverse effects; and the likely residual effects after any measures have been employed.
- 8.1.3 A Transport Assessment, Transport Assessment Addendum, Supplementary Transport Note and Vehicle Movement Condition Technical Note have also been prepared to support the planning application and are included as Appendix 7.1, Appendix 7.2, Appendix 7.3 and Appendix 7.4 respectively.
- 8.1.4 Hamble Airfield is identified in the Hampshire Minerals and Waste Local Plan for the extraction of sharp sand and gravel. Hamble Airfield has approximately 1.7 million tonnes of aggregate and it is anticipated that the extraction of the site will take up to seven years to complete. Both extraction and restoration activities on the site will therefore occur between years three and seven of operation. Following the extraction, it is anticipated that the site will take a further four to five years to complete the restoration.

## 8.2 Study Area

8.2.1 Hamble Airfield is located circa 1km to the north of Hamble-Le-Rice, circa 2km to the east of Netley, circa 2.5km south of Bursledon and 3.5km south of Junction 8 of the M27.

8.2.2 The site location in relation to the local highway network is shown on Image 13.1 below. The existing residential area of Hamble-le-Rice lies to the south and east of the site and the B3397 Hamble Lane forms the western boundary. To the north of the site is Hamble Railway Station, which lies on the Portsmouth to Southampton Railway Line and Hamble Community College is located further to the north.

**Image 13.1 Site Location**



Source: Map from Hampshire Minerals and Waste Plan (2013) with Consultants Annotations

## 8.3 Methodology

### Previous Assessment Stages

- 8.3.1 As part of the technical assessments undertaken to support the planning application a Transport Assessment has also been produced (included as Appendix 7.1), which was informed by pre-application discussions with Hampshire County Council (HCC) as the Local Highway Authority. Subsequent to the submission of the planning application, a Transport Assessment Addendum (included as Appendix 7.2) has also been produced, to address matters raised by HCC in relation to the application. The Supplementary Transport Note (included as Appendix 7.3) sets out some modest amendments which have been made to the site design of the site access to respond to comments on arboricultural matters.

### Legislation and Planning Policy

#### National Planning Policy and Practice Guidance

##### National Planning Policy Framework (NPPF)

- 8.3.2 The NPPF sets out the Government's planning policies and how these are expected to be applied. Paragraph 11 of the NPPF sets out that there is a presumption in favour of sustainable development:

*"At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development".*

- 8.3.3 The Framework states that all developments that generate significant amounts of movement should be supported by a Transport Statement or a Transport Assessment and a Travel Plan so that the likely impacts of the proposal can be assessed (ref. paragraph 113).

- 8.3.4 In terms of specific transport policies within the NPPF, paragraph 110 states that in assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

*“appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*

*safe and suitable access to the site can be achieved for all users;*

*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 46; and*

*any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree”.*

#### Planning Practice Guidance

- 8.3.5 The Planning Practice Guidance (PPG) provides advice on when transport assessments, transport statements and travel plans are required and, what they should contain. Details regarding the overarching principles and information relating to each document are provided within the PPG.

#### **Local Planning Policy**

##### Hampshire Minerals and Waste Plan (October 2013)

- 8.3.6 Hampshire County Council, Portsmouth City Council, Southampton City Council, New Forest National Park Authority and the South Downs National Park Authority (the 'Hampshire Authorities') have produced the Hampshire, Portsmouth, Southampton, New Forest National Park and South Downs

National Park Minerals and Waste Plan (the 'Hampshire Minerals and Waste Plan') in partnership.

- 8.3.7 Hamble Airfield is considered to be the best option for providing a local supply of sharp sand and gravel. Section 3 of Policy 20 *Local Land-Won Aggregates* states:

*“An adequate and steady supply of locally extracted sand and gravel will be provided by maintaining a landbank of permitted sand and gravel reserves sufficient for at least seven years from...”*

*3. new sand and gravel extraction sites, provided the proposals address the development considerations outlined in ‘Appendix A - Site allocations’: ...*

*iii. Hamble Airfield, Hamble’le’Rice (sharp sand and gravel) (Inset Map 9) – 1.50 million tonnes”*

- 8.3.8 The transport related site-specific development considerations listed in Appendix A of the Plan state:

*“Safe and satisfactory access to ensure provision is made for vulnerable highway users and the impact on peak flows is managed.*

*Traffic issues including consideration of school traffic and pedestrians, particularly at Hamble Community Sports College and Hamble Primary, and management of traffic and congestion on Hamble Lane”.*

Hampshire Local Transport Plan 2011-2031

- 8.3.9 HCC’s transport strategy for the next 20 years is set out in this document which also outlines how the LTP will contribute to the Council’s corporate priorities and includes a three-year implementation plan. A vision of: ‘...safe,

efficient and reliable ways to get around a prospering and sustainable Hampshire', is proposed.

8.3.10 Three main priorities are set out in the LTP for the next 20 years. These are:

*“Support economic growth by ensuring the safety, soundness, and efficiency of the transport network in Hampshire”;*

*“Provide a safe, well-maintained, and more resilient road network in Hampshire, as the basic transport infrastructure of the County, on which all forms of transport directly or indirectly depend, and the key to continued casualty reduction”;* and

*“Manage traffic to maximise the efficiency of the existing network capacity, improving journey time reliability and reducing emissions, and thereby supporting the efficient and sustainable movement of people and goods”.*

8.3.11 These main priorities are supported by 14 policy objectives which are set out under five broad themes, as follows:

- *“Supporting the economy through resilient highways;*
- *Management of traffic;*
- *The role of public transport;*
- *Quality of life and place; and*
- *Transport and growth areas.”*

8.3.12 Specifically with regards to HGVs one of the core challenges identified in the policy document is:

*“Managing and mitigating the impacts of increasing traffic, including HGV movements on core routes and in more rural areas”.*

Eastleigh Borough Local Plan (2016-2036)

8.3.13 Eastleigh Borough Council adopted its Local Plan in April 2022. The Local Plan sets the vision and framework for future development of the borough to 2036 and address local housing, community as well as strategic infrastructure need.

8.3.14 Policy DM13 General Development Criteria – Transport states that:

*“1. All new development must have safe and convenient access to the highway network and make provision for access to, and by, other transport modes including public transport and cycle and pedestrian routes as appropriate. Access arrangements to the highway network must:*

*a. meet national and local guidance and standards with all highway improvements meeting the standard required to be adopted by the Highway Authority;*

*b. not cause or increase danger to road users or have a significant detrimental impact on the operation or safety of the highway network; and*

*c. be provided without unacceptable environmental impact.*

*2. All new development will be assessed to establish whether it should contribute to off-site improvements to transport infrastructure in accordance with Hampshire County Council’s Transport Contributions Policy, to the extent that these are necessitated by the development and proportionate to the scale of development.*

*3. Development proposals that will generate vehicle movements likely to have an adverse impact on traffic conditions beyond the immediate vicinity of the development site must be subject to Transport Assessment and will be*



*required to incorporate and implement mitigation measures such as:*

- a. provision of/contribution towards on and off-site highway improvements such as junction improvements and potentially new road links*
- b. on-site pedestrian, cycle and public transport infrastructure*
- c. contributions towards relevant off-site sustainable transport infrastructure, public rights of way and service improvements where appropriate*
- d. on-site measures aimed at increasing uptake of non-car travel options (e.g. Travel Plans) to reduce car use”.*

- 8.3.15 The Local Plan identifies that Hamble Lane is the only link that provides access to Hamble. It is identified as having peak hour congestion and thus notes that improvements are likely to be required.

Eastleigh Strategic Transport Study (2015)

- 8.3.16 The Eastleigh Strategic Transport Study identifies the need for the potential strategic transport infrastructure improvements required to be delivered over the Local Plan period to 2036.
- 8.3.17 The study identifies the A3025 Hamble Lane as a corridor of interest requiring capacity improvements. The study sets outlines ‘Do Minimum’ (signalisation schemes) and ‘Do Maximum’ (signalisation and lane widening schemes) options for improvement at the Tesco junction, Jurd Way junction and Portsmouth Road junction and evaluates them against a set criterion in relation to design compliance, traffic impacts, environmental impacts, land requirements and scheme costs.

## **Assessment Methodology**

8.3.18 This section sets out the methodology used for identifying the baseline conditions and assessing the likely traffic impacts of the proposed development. The Institute of Environmental Management and Assessment (IEMA) has prepared 'Guidelines for the Environmental Assessment of Road Traffic (Guidance Note No. 1)'. This Chapter fully assesses the environmental impact of the road traffic generated by the proposal in accordance with the criteria set out in this document. The method for each impact assessed is set out below.

### **Severance**

8.3.19 Severance is the perceived division that can occur within a community when it becomes separated by a major traffic route. The assessment of severance pays full regard to specific local conditions, in particular the location of pedestrian routes to key local facilities and whether crossing facilities are provided or not.

8.3.20 The IEMA Guidelines suggest that a 30%, 60% and 90% increase in traffic flow will respectively have a 'slight', 'moderate' and 'substantial' change in severance. However, allowance needs to be made for the presence of existing crossing facilities.

### **Driver Delay**

8.3.21 Traffic delays to non-development traffic can occur:

- At the site entrance where there will be additional turning movements;
- On the highways passing the site where there may be additional flow;  
and
- At key junctions on the nearby highway network.

**Pedestrian Delay**

8.3.22 The development proposals will have a small impact on the volume and composition of traffic. The IEMA Guidelines recommend that rather than rely on thresholds of pedestrian delay; the assessor should use judgement to determine whether there will be a significant impact on pedestrian delay.

**Pedestrian Amenity**

8.3.23 The IEMA Guidelines broadly define pedestrian amenity as the relative pleasantness of a journey. It is affected by traffic flow, traffic composition, pavement width and separation from traffic. A tentative threshold for changes in pedestrian amenity is when traffic flows are halved or doubled.

**Fear and Intimidation**

8.3.24 A further impact that traffic may have on pedestrians is fear and intimidation. This impact is dependent on the volume of traffic, its HGV composition and its proximity to people and/or the lack of protection caused by factors such as narrow pavement widths.

8.3.25 The IEMA Guidelines suggest thresholds based on 18-hour daily flow, 18-hour HGV flow and vehicle speeds, as shown on Table 13.1:

**Table 13.1: Fear and Intimidation Thresholds**

Degree of Hazard	Average traffic flow over 18-hour day (vehicle / hour)	Total 18-hour HGV flow	Average speed over 18-hour day (mph)
Extreme	1,800+	3,000+	20+
Great	1,200-1,800	2,000-3,000	15-20
Moderate	600-1,200	1,000-2,000	10-15

**Accidents and Safety**

8.3.26 Personal injury accident data for a five-year period (1 December 2016 and 30 November 2021) has been obtained from Hampshire County Council and reviewed.

### **Hazardous Loads**

8.3.27 The IEMA Guidelines acknowledge that most proposals will not result in increases in the number of movements of hazardous / dangerous loads. The publication 'The Carriage of Dangerous Goods in the UK' lists materials which can represent a hazard when in transit and provides guidance in relation to the safe carriage of these goods. The proposal is evaluated against this list.

### **Dust and Dirt**

8.3.28 Dust and dirt created by traffic can be a problem arising from the operations of certain types of development, notably quarrying and the transport of quarried materials. The guidelines suggest that problems with dust and dirt are unlikely to occur at distances greater than 50m from the road. The impact of dust and dirt will depend on the management practices undertaken on site. The assessment has been undertaken on the basis of the number of HGV movements and the proximity of nearby properties.

### **Air Quality and Noise**

8.3.29 The air quality and noise impacts of the development proposal are dealt with in Chapters 7 and 12 of the ES.

### **Extent of Study Area**

8.3.30 The study area scope of this assessment has been defined by reference to the IEMA guidelines. The guidelines set out two rules as follows:

- Rule 1: Include highway links where traffic flows are predicted to increase by more than 30% (or where the number of HGVs is predicted to increase by more than 30%); and
- Rule 2: include any other specifically sensitive areas where the traffic flow (or HGV component) is predicted to increase by more than 10%.

8.3.31 The road links that are predicted to satisfy one of the two rules above and therefore have been considered within the ES are listed below:

- Hamble Lane in the vicinity of the proposed access;
- Hamble Lane north of Hound Road
- Hamble Lane North of Portsmouth Road; and
- Hamble Lane north of the Tesco Access.

#### **Assessment of Sensitivity**

8.3.32 The sensitivity of a road or the immediate area through which it passes can be defined by the type of user groups who may use them. Vulnerable users will include elderly residents and children. It is also necessary to consider footpath and cycle route networks that use or cross the roads within the study area.

8.3.33 A desktop exercise has been undertaken to classify the sensitivity of the routes within the study area. Table 13.2 below identifies the links, the assigned sensitivity rating and the justification:

**Table 13.2 Sensitivity of Receptors**

Link	Link Sensitivity	Rationale
Hamble Lane in the Vicinity of the Site Access	Medium	Hamble Lane is a single carriageway road subject to a 30mph speed limit. There is a shared footway / cycleway adjacent to the carriageway, which provides good facilities for pedestrian and cyclists and both controlled and uncontrolled crossing facilities are provided. The footway / cycleway is likely to be used by pupils of The Hamble School and Hamble Primary School as such active travel around school times is likely to occur. The proposed access will form a new access across the shared footway / cycleway, however, suitable pedestrian and cycle crossing facilities have been incorporated in the design.
Hamble Lane north of Hound Road	Low	Hamble Lane along this section is a single carriageway road subject to a 30mph speed limit. There is a shared footway / cycleway adjacent to the carriageway which is used by The Hamble School. Whilst the proposed development will increase the number of HGV movements along this section of road, it will have minimal impact on the capacity, delay or pedestrian amenity.
Hamble Lane north of Portsmouth Road	Low	Hamble Lane along this section is a single carriageway road subject to a 30mph speed limit. There is a shared footway / cycleway adjacent to the carriageway which is likely to be used by residents of Bursledon to access local facilities and services.
Hamble Lane north of Tesco Access	Low	Whilst the proposed development will increase the number of HGV movements along this section of road, it will have minimal impact on the capacity, delay or pedestrian amenity.

**Determining Impact Magnitude**

8.3.34 The criteria for assessing magnitude of impact are outlined below in Table 13.3. These are broadly based on the impact of percentage traffic increases on severance identified by the IEMA guidelines. The magnitude of impacts however needs further consideration because impacts arise not only from the percentage increase in traffic volumes, but the change in the composition in traffic, the overall level and type of traffic and the existing highways and transport conditions. Following the initial assessment of the magnitude of impacts therefore, more detailed assessments into the impact on severance, driver delay, pedestrian delay, fear and intimidation, accidents and safety should therefore be undertaken using the IEMA guidelines related to each of these matters.

**Table 13.3 Magnitude Assessment – Transport Impacts**

Magnitude	Definition
Major	Above 90% increase in existing traffic/HGV levels
Moderate	Between 60% and 90% increase in existing traffic/HGV levels
Minor	Between 30% and 60% increase in existing traffic/HGV levels
Negligible	Fewer than 30% increase in existing traffic/HGV levels

**Determining Significance and Nature of Effects**

8.3.35 The significance of effect is determined by combining the magnitude of impact with the sensitivity of the receptor.

8.3.36 If an impact magnitude is negative, then the resulting effect is described as being adverse; if an impact magnitude is positive the resulting effect is classed as being beneficial. In this chapter any significance of effect that is

defined as being above moderate adverse/beneficial or greater is defined as being significant.

**Table 13.4 Significance of Effects Matrix**

		<b>Magnitude of Impact</b>			
		<b>Substantial</b>	<b>Moderate</b>	<b>Slight</b>	<b>Negligible</b>
<b>Sensitivity</b>	<b>Very High</b>	Major	Major	Major/Moderate	Neutral
	<b>High</b>	Major	Major/Moderate	Moderate/Minor	Neutral
	<b>Medium</b>	Major/Moderate	Moderate	Minor	Neutral
	<b>Low</b>	Moderate/Minor	Minor	Minor/Neutral	Neutral



## 8.4 Baseline Environment

### Site Location

- 8.4.1 A site location plan is provided as Image 13.1. The site is located to the north of Hamble and has an area of approximately 62 hectares. The existing residential area of Hamble-le-Rice lies to the south and east of the site and the B3397 Hamble Lane forms the western boundary. To the north of the site is Hamble Railway Station which lies on the Portsmouth to Southampton Railway Line and Hamble Community College is further to the north.

### Local Highway Network

- 8.4.2 Hamble Lane forms the western boundary of the site. Hamble Lane is a single carriageway road, measuring approximately 9.5m in width, with a 30mph speed limit and has street lighting. It generally runs in a north south alignment and connects to the train station and roundabout providing access to Netley via Hound Road and onwards towards the A3024 and A27 via Windhover Roundabout to the north. To the south, Hamble Lane leads into Hamble-le-Rice.
- 8.4.3 The Site also fronts onto Satchell Lane, which is a single carriageway road with a 30mph speed limit. Satchell Lane is rural in nature and there are a number of bends along the frontage.
- 8.4.4 Automatic Traffic Count (ATC) surveys were undertaken on Hamble Lane in May 2017. Given the COVID-19 pandemic and associated travel restrictions at the time of planning application submission, it was not possible to obtain new traffic data to support the preparation of the application. Therefore,

unadjusted growth rates were obtained from TEMPRO and applied to the traffic flows to represent 'neutral 2021 conditions'.

8.4.5 In line with comments received from HCC, updated Automatic Traffic Count (ATC) surveys have since been undertaken on Hamble Lane in April 2022.

8.4.6 A Summary of the two-way vehicle movements observed on Hamble Lane in 2017 (and factored to represent the previous baseline of 2021) and 2022 in the vicinity of the proposed access during the peak periods is summarised in Table 13.5.

**Table 13.5 Peak Traffic Flows – Hamble Lane**

Time	Direction	2017 Observed Flows	2021 Factored Flows	2022 Observed Flows
07:00-08:00	North	444	467	397
	South	719	756	684
	<b>Two-Way</b>	<b>1,163</b>	<b>1,222</b>	<b>1,081</b>
08:00-09:00	North	447	470	470
	South	820	862	743
	<b>Two-Way</b>	<b>1,267</b>	<b>1,331</b>	<b>1,213</b>
16:00-17:00	North	706	740	759
	South	491	515	453
	<b>Two-Way</b>	<b>1,197</b>	<b>1,255</b>	<b>1,212</b>
17:00-18:00	North	629	659	607
	South	516	541	480
	<b>Two-Way</b>	<b>1,145</b>	<b>1,200</b>	<b>1,087</b>

Source: April 2022 Traffic Surveys

8.4.7 As shown in Table 13.5, the existing traffic flows on Hamble Lane circa 1,081 - 1,231 two-way movements during the morning and evening peak periods. This equates to 18-21 vehicle movements every minute.

8.4.8 The recorded mean and 85th percentile speeds obtained from the ATC surveys on Hamble Lane are summarised in Table 13.6.

**Table 13.6 Summary of Recorded Speed Data**

Location	Speed	Northbound (mph)	Southbound (mph)
Hamble Lane	Mean	34.3	34.6
	85th Percentile	39.6	39.4

Source: Traffic Surveys

**Pedestrian / Cycle Use of Hamble Lane**

8.4.9 A survey of pedestrian movements on the existing shared use footway / cycleway adjacent to Hamble Lane was undertaken to consider the adequacy of the pedestrian facilities at the proposed access. The results are summarised in **Table 13.7**. The survey was undertaken on Thursday 13 July 2017, during school term time.

8.4.10 The survey identified the peak pedestrian and cycle periods are between:

- Morning Peak – 08:00 - 09:00; and
- Evening Peak - 15:00 – 16:00.

**Table 13.7: Summary of Pedestrian Survey Data**

	Morning Peak Hour (08:00 – 09:00)		Evening Peak Hour (15:00 – 16:00)	
	Pedestrians	Cycles	Pedestrians	Cycles
Southbound	4	12	61	14
Northbound	53	13	7	12
Two-Way	57	25	68	26

Source: 2017 Pedestrian / cycle traffic surveys

8.4.11 As summarised in Table 13.7, in the morning peak period, the majority (approx. 80%) of pedestrian and cycle movements are northbound on Hamble Lane. In the evening peak, the majority (approx. 82%) of pedestrian and cycle movements are southbound on Hamble Lane. The direction and timing of pedestrian and cycle movements appears to coincide with the start and finish times of The Hamble School, located to the north of the proposed minerals site. The school day starts at 08:30 and finishes at 14:55.

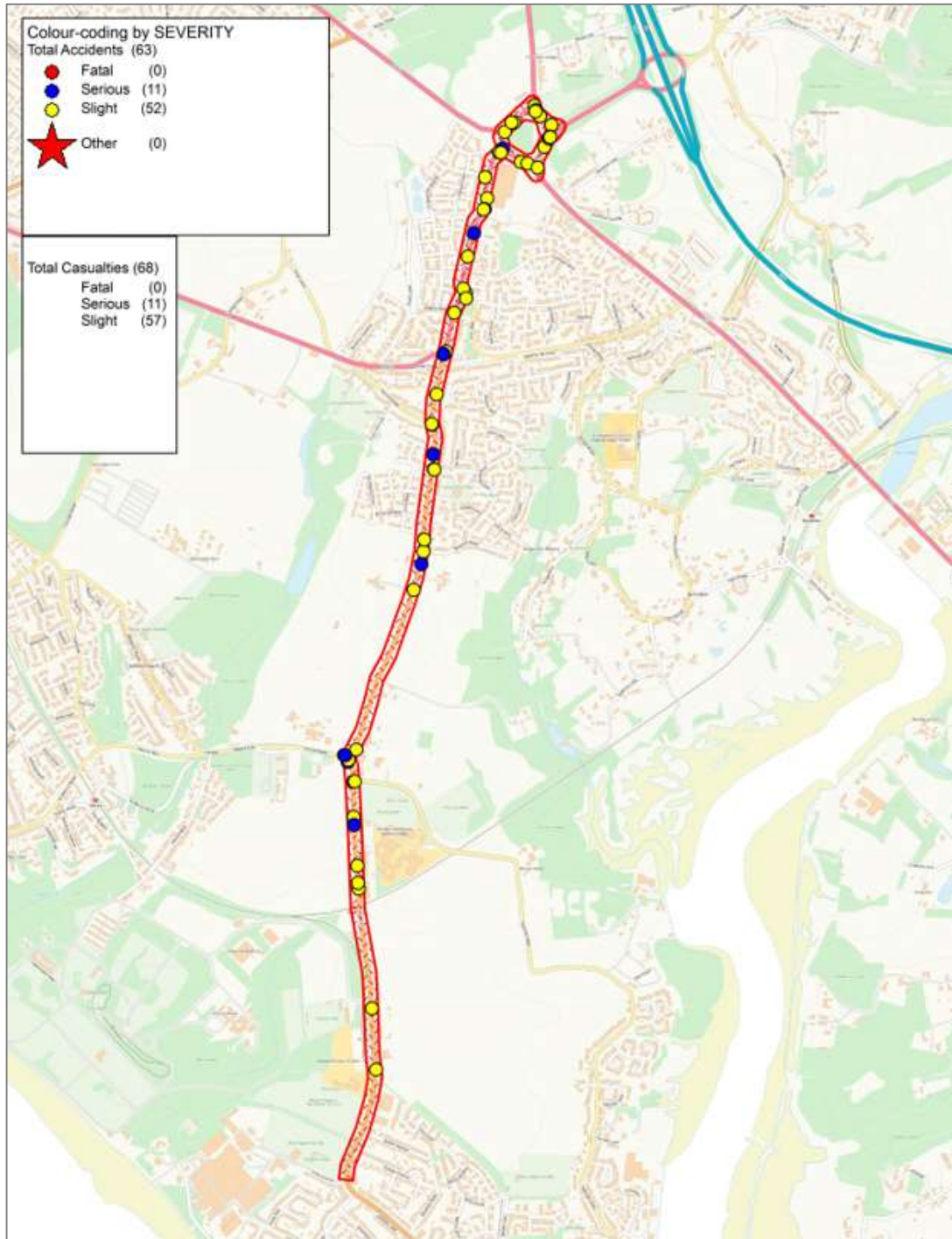
### **Highway Safety**

8.4.12 Personal Injury Accident data has been obtained from the Hampshire Constabulary for the five-year period between 1 December 2016 to 30 November 2021.

8.4.13 The data covers a study area consisting of the extent of Hamble Lane, from and including Windhover Roundabout to the north to the priority junction with Kings Avenue to the south. The study area and the location of accidents is illustrated in Image 13.2.

8.4.14 A total of 63 collisions and 68 PIAs have been recorded in the latest-five-year period within the study area, comprising of 57 slight PIAs (resulting from 52 collisions) and 11 serious PIAs / collisions.

Image 13.2 PIA Extent



Source: Hampshire Constabulary

8.4.15 A total of 65 collisions have been recorded in the latest-five-year period within the study area, comprising of 53 slight and 12 serious severities.

8.4.16 A copy of the full PIA data is included at Appendix 7.2, whilst a summary of the personal injury accident data analysis in the vicinity of the proposed development is provided below.

8.4.17 Two slight incidents were recorded along Hamble Lane within the vicinity of the site access, and seven slight accidents and four severe accidents were recorded to north of the railway line up to the Hamble Lane / Hound Road roundabout (including its approach). These accidents are summarised below:

- A slight incident occurred when a car entered Hamble Lane without giving way to a cyclist. This happened at the Hamble Self Storage access (to the south of the site);
- A slight incident occurred just outside the junction with the Hampshire Constabulary training facility and involved a single car that misjudged the edge of the carriageway, causing the vehicle to swerve off the road and collide with a tree;
- A slight incident involved a bus that was travelling along Hamble Lane that collided with a pedestrian as they stepped out into the road. Minor injuries were sustained by the pedestrian;
- A further incident caused slight injuries to a pedestrian that was walking along the footway but suddenly ran into the road across the path of a car travelling Hamble Lane;
- An incident occurred at the junction with The Broadway when a car turned left into Hamble Lane but failed to give way to a cyclist travelling along Hamble Lane, causing slight injuries to the cyclist;
- One serious incident occurred when a motorcyclist clipped the kerb causing the rider to fall off and collide with a traffic sign;

- Another slight collision occurred on Hamble Lane when a car failed to stop as a pedestrian was crossing at the signalised crossing;
- Two collisions occurred at the Hamble Lane / Satchell Lane junction, one of which was serious and the other which was recorded as being slight in nature. The serious collision occurred when a car turned right out of Satchell Lane onto Hamble Lane and collided with a motorcycle already travelling along Hamble Lane, while the slight collision occurred when a car pulled out of Satchell Lane onto Hamble Lane and collided with a car;
- Four collisions occurred at the Hamble Lane / Hound Road Roundabout, two of which were serious and two of which were slight in nature. One of the serious collisions occurred when a cyclist tried to mount the pavement but lost control and fell off and the other was a shunt type collision on the Hound Road Arm of the roundabout. One of the slight collisions occurred when a car entered the roundabout (from the Hamble Lane south arm) and failed to give way to a cyclist already on the roundabout, while the final slight collision occurred when a driver had a medical episode and lost control of the vehicle, colliding with another car.

8.4.18 It is noted that there have been no accidents involving large vehicles (3.5T and over).

8.4.19 As such, the latest available accident record does not highlight any existing highway defects or safety issues that would be exacerbated by the proposed development.

### **Walking and Cycling**

8.4.20 A continuous shared use footway/cycleway (the Dani King cycleway) is provided on the eastern side of Hamble Lane along the site frontage. To the south of Hamble Railway Station there is also a shared use footway/cycleway along the western side of Hamble Lane, providing an additional facility for

pedestrians and cyclists between the Rail Station and Hampshire Constabulary’s training facilities. There is an uncontrolled pedestrian crossing with dropped kerbs, tactile paving and a pedestrian refuge island approximately 35m to the north of the access to Hampshire Constabulary’s Training Centre.

8.4.21 Hamble Lane also provides direct cycle access to National Cycle Route 2, as shown in Image 13.3 below, which is a long distance route between Dover and St Austell, however, in the vicinity of the site, it provides access to centre of Hamble-Le-Rice to the south east and Netley to the west. Continuing west the route provides access to Weston, Woolston and Southampton via a network to traffic free and on-road routes.

**Image 13.3 Extract of National Cycle Route 2**



Source: Sustrans National Cycle Network Map



8.4.22 As requested by HCC, a walking, cycling and horse-riding assessment and review (WCHAR) has been prepared, which provides an analysis of the existing facilities available (included within Appendix 7.2).

8.4.23 The WCHAR identifies that the walking and cycling facilities in the vicinity of the proposed development site are good and enable local residents as well as future employees of the site a realistic alternative to using the private car. This is confirmed in the recently adopted Local Cycling and Walking Infrastructure Plan (LCWIP), which states that along the Windhover Roundabout to Hamble Route (Route Ref: 338.3):

*“There is considerable existing infrastructure for cyclists and pedestrians along this section of route 338. Footpaths are available for its entire length, with crossing points at regular intervals. Shared use footpaths are present for much of this section, in addition to some segregated paths”.*

### **Public Transport Accessibility**

#### **Bus**

8.4.24 The nearest bus stop to the site is located on the B3397 Hamble Lane, approximately 200m south from the site access.

8.4.25 The bus stops in both directions consist of a flag and pole and provide timetable information. The northbound bus stop also provides seating. The bus stops are primarily served by route 15 between Southampton City Centre and Hamble-le-Rice village centre.

8.4.26 A summary of the bus routes and service frequency is outlined in Table 13.8 below.

**Table 13.8 Summary of Local Bus Services**

Route	Destination	Service Frequency		
		Weekday	Saturday	Sunday
15	Southampton City Centre – Hamble	Every 30 minutes	Every hour	Every hour

Source: Traveline

8.4.27 The first service arrives at the bus stops near the site at 06:13 from Hamble and 06:00 from Southampton. The last service departing leaves the stops nearest the site at 21:35 to Hamble and 21:45 to Southampton. Consequently, it can be seen that the site can be accessed by a frequent service which operates from early in the morning to late in the evening and could be used by staff and/or visitors to access the site.

### Rail

8.4.28 Hamble Railway Station is located approximately 300m north of the site access. The station is managed by South Western Railway who operate the majority of services and provides for journeys towards a range of destinations which include London Victoria, London Waterloo, Bournemouth, Manchester, Salisbury, Portsmouth, Cardiff and Brighton. A summary of the service frequency is outlined in Table 13.9 below.

**Table 13.9 Summary of Train Service Frequency**

Destination	Service Frequency (Weekdays)	
	Peak	Off-Peak
Southampton Central	1 per hour	1 per hour
Portsmouth & Southsea	1 per hour	1 per hour

Source: National Rail

8.4.29 Hamble station has step-free access and 4 bike storage spaces. As such it can be seen that staff and visitors travelling to the site would have good opportunities to travel by rail services to/from the site.

### **Summary**

8.4.30 Pedestrian and cycle facilities within the vicinity of the site are typical of a suburban area and provide good and continuous access to the surrounding areas of Hamble. The site is within walking and cycling distance of a large area of Hamble as well as the adjacent areas of Netley and thus there are good opportunities for staff and visitors to access the site on foot or by bike.

8.4.31 There are also good public transport opportunities to access the site with frequent bus services and regular trains, both of which can be accessed by foot or bicycle.

8.4.32 Hamble Lane along the site frontage accommodates two-way traffic flows of circa 1,100 – 1,250 vehicles in the peak hours with recorded average speeds of circa 35mph and 85<sup>th</sup> percentile speeds of circa 40mph in both directions. The accident record for a five year period does not highlight any existing highway defects or safety issues that would be exacerbated by the proposed development.

## 8.5 Traffic Impact Assessment

8.5.1 This section of the report provides an assessment of the effects of the proposed development on the local highway network.

### Existing Conditions

8.5.2 To determine the existing baseline traffic conditions, a series of Automatic Traffic Count (ATC) surveys were undertaken on the Hamble Lane in the vicinity of the proposed access and a series of Manual Classified Counts (MCCs) were undertaken at junctions along the Hamble Lane corridor. Surveys were undertaken at the following locations:

- Hamble Lane / Satchell Lane Simple Priority Junction;
- Hamble Lane / Hound Road Roundabout;
- Hamble Lane / Portsmouth Road Ghost Island Junction;
- Hamble Lane / Lionheart Way Roundabout;
- Hamble Lane / Tesco roundabout;
- Windhover Roundabout; and
- M27 Junction 8.

8.5.3 The surveys on Hamble Lane in the vicinity of the site access were undertaken in April 2022, whilst the surveys at the remainder of the locations were undertaken in October 2022. The surveys were undertaken during 'neutral' traffic periods and no COVID restrictions were in place at the time, as such the traffic surveys represent typical network conditions.

8.5.4 The peak hours identified by the surveys were:

- Morning Peak Hour – 07:30 - 08:30; and

- Evening Peak Hour – 16:15 – 17:15.

8.5.5 The 2022 baseline traffic conditions have been either been taken directly from the ATC surveys or calculated using peak hour to Annual Average Daily Traffic Factors calculated from the Department for Transport traffic count site located on Hamble Lane located just to the north of Lionheart Way (site ref: 8559), the results are summarised in Table 13.10 for all vehicles and Table 13.11 for HGV movements.

**Table 13.10: Summary of Two-Way Total Traffic Flows on Hamble Lane - 2022**

Link	Morning Peak (07:30 – 08:30)	Evening Peak (16:15 – 17:15)	Daily Traffic (AADT) (00:00 – 00:00)
Hamble Lane in vicinity of proposed access	1,370	1,386	17,230
Hamble Lane north of Hound Road	1,487	1,501	18,680
Hamble Lane north of A3025 Portsmouth Road	2,247	2,349	28,733
Hamble Lane north of Tesco Access	2,207	2,306	28,215

Source: 2022 ATC Traffic Surveys (5-day average) and MCC Traffic Flows

**Table 13.11: Summary of Two-Way HGV Movements of Hamble Lane - 2022**

Link	Morning Peak (07:30 – 08:30)	Evening Peak (16:15 – 17:15)	Daily Traffic (AADT) (00:00 – 00:00)
Hamble Lane in vicinity of proposed access	23	17	224
Hamble Lane north of Hound Road	19	13	179
Hamble Lane north of A3025 Portsmouth Road	42	27	387
Hamble Lane north of Tesco Access	48	23	398

Source: 2022 ATC Traffic Surveys (5-day average) and MCC Traffic Flows

## Future Baseline and Cumulative Impact

8.5.6 The traffic impact has been assessed for the morning and evening peak hours for the future years of 2024, 2031 and 2035 which coincided with the proposed 'year of opening' and end of traffic phases 2 and 3 respectively.

8.5.7 The previous iteration of the ES chapter included the traffic associated with the following committed development sites manually added onto the local highway network:

- Land at Berry Farm, Hamble Lane, Bursledon (Planning Ref: F/17/79863) - Construction of 166 dwellings with associated access off Cunningham Gardens, parking, landscaping and open space following demolition of existing dwellings and former agricultural buildings/workshop;
- Land at Satchell Lane (Planning Ref: O/17/80319) - development of up to 70 dwellings with associated access, public open space, landscaping and amenity areas;
- Land to the south of Mallards Road (Planning Ref: O/15/76491) - Construction of up to 80 dwellings including public open space with access as only detailed matter for consideration following demolition of nos. 1 and 3 Mallards Road;
- Land to the North of Cranbury Gardens (Planning Ref: O/15/76883) - Outline application for up to 45no. dwellings including public open space, landscaping and vehicular access from land to the north & Hamble Lane, pedestrian link to Hamble Lane. All detailed matters except for access reserved; and

- Land South of Bursledon Road (Planning Ref: O/15/77121) - Outline application for up to 182 no. dwellings and associated landscaping, open space and infrastructure, and diversion of public right of way, with access from Bursledon Road. (All matters reserved except for access).

8.5.8 However, it is noted that the planning application at Mallards Road for 80 dwellings was dismissed at Appeal. In addition, the consented developments at Land at Berry Farm, Land North of Cranbury Gardens and Land South of Bursledon Road have now been completed (as confirmed by the Eastleigh Five Year Housing Land Supply Position Documents for 2021-2026 and 2022-2027). As such, traffic associated with these developments would have been captured on the local highway network when the updated traffic surveys were undertaken on 18th October 2022. Consequently, no traffic associated with the previously identified committed developments has been manually added to the local highway network.

8.5.9 Nevertheless, to ensure an allowance of background growth in traffic flows is accounted for, unadjusted TEMPRO growth rates have been applied to the baseline traffic flows to represent future year scenarios.

8.5.10 Using this methodology, Table 13.12 summarises the growth factors which have been applied to the observed traffic flows to derive the 2024, 2031 and 2035 peak hour traffic flows.

**Table 13.12: Traffic Growth Factors**

Growth Period	Morning Peak Growth Rate	Evening Peak Growth Rate	Average Day Growth Rate
2022-2024	1.0193	1.0192	1.0199
2022-2031	1.0749	1.0753	1.0786
2022-2035	1.1029	1.1036	1.1091

Source: TEMPRO 7.2c – Eastleigh 015 MSOA / All Road Types

**Proposed Development Trip Generation**

8.5.11 CEMEX have provided information on the number of daily HGV trips likely to be generated by the site over the life of the proposed development.

8.5.12 It is anticipated that the proposed development would commence in 2024, and would take 11-12 years to complete, thus cease generating HGV movements up to 2035. The phases of the development in terms of the HGV generation are set out below:

- Traffic Phase 1: Year 1 – 2 – Export only;
- Traffic Phase 2: Years 3 – 7 – Export and infill; and
- Traffic Phase 3: Years 8 – 12 – Infill only.

8.5.13 The indicative number of daily HGV movements associated with the aforementioned phases is summarised in Table 13.13.

**Table 13.13: Indicative Operational HGV Movements for Hamble Airfield for Standalone CEMEX operation**

Activity	Daily Vehicle Movements (HGV)					
	Traffic Phase 1		Traffic Phase 2		Traffic Phase 3	
	In	Out	In	Out	In	Out
Export of Aggregates	45	45	45	45	0	0
Delivery of Infill	0	0	27	27	45	45
Total HGV Movements	45	45	72	72	45	45
Total HGV Movements	90		144		90	

Source: Hamble Airfield Development Brief



- 8.5.14 Table 13.13 shows that the proposed development is anticipated to generate circa 90 two-way vehicle movements per day in years 1 and 2, and years 8-12 and 144 two-way movements in years 3-7 across the day.
- 8.5.15 The estimated number of movements set out above are based on 20 tonne capacity aggregate tippers. It is possible that some of the exports and deliveries would use larger vehicles, with greater capacity. Furthermore, some vehicles will be backloaded (i.e., vehicles arriving with deliveries of infill will also leave the site with exports of aggregates) and as such will reduce the number of movements to and from the site. Therefore, the figures presented represent a worst-case traffic scenario in terms of the number of movements.
- 8.5.16 CEMEX has collected traffic data from similar aggregate extraction sites, this data has been analysed to calculate an indicative HGV flow profile across the day. The indicative flow profile has been applied to the anticipated number of daily vehicle movements as summarised in Table 13.14.

**Table 13.14: Indicative HGV Movements Throughout the Day**

Time	Trip Profile	Number of HGV trips per hour		
		Traffic Phase 1	Traffic Phase 2	Traffic Phase 3
06:00-07:00	0%	0	0	0
07:00-08:00	18%	17	26	17
08:00-09:00	12%	11	17	11
09:00-10:00	13%	12	19	12
10:00-11:00	11%	10	16	10
11:00-12:00	9%	8	12	8
12:00-13:00	7%	6	10	6
13:00-14:00	9%	8	12	8
14:00-15:00	10%	9	15	9
15:00-16:00	8%	7	11	7
16:00-17:00	3%	3	5	3
17:00-18:00	0%	0	0	0
18:00-19:00	0%	0	0	0
Daily Total	100%	90	144	90

Source: CEMEX Quarry data and Consultant's Calculations (Errors may occur due to rounding)

- 8.5.17 Table 13.14 indicates that the peak hour for the proposed development traffic is likely to be between 07:00 – 08:00. This falls partly within the network peak period of 07:30-08:30, therefore, to ensure a robust assessment is undertaken, the peak development trips have been added onto the peak network hour.
- 8.5.18 Based on the indicative flow profile, the development proposal is anticipated to generate circa 17 HGV movements in years 1 and 2 (traffic phase 1) and years 8-12 (traffic phase 3) and 26 movements in years 3-7 (traffic phase 2) in the morning development peak hour. This equates to circa one HGV movement every three minutes and circa one HGV movement every two minutes respectively.
- 8.5.19 HGV movements associated with aggregate quarries are typically lower in the afternoon and evening. The evening network peak hour occurs between 16:15 – 17:15, therefore, to ensure a robust assessment is undertaken, the development traffic which is anticipated to occur between 16:00-17:00 has been added to the network peak hour.
- 8.5.20 Based on the indicative flow profile, the development proposal is anticipated to generate circa 3 HGV movements in years 1 and 2 (traffic phase 1) and years 8-12 (traffic phase 3) and 5 movements in years 3-7 (traffic phase 2) in the evening development peak hour. This equates to circa one HGV movement every 20 minutes and circa one HGV movement every 12 minutes respectively.
- 8.5.21 There are also likely to be a small number of staff and visitors travelling to / from the site each day. The site will provide 20 parking spaces, whilst it is not anticipated that all of these spaces would be used each day, in order to provide a robust assessment, it has been assumed that 10 of the 20 staff / visitors will arrive during the morning network peak (07:30-08:30), with the other 10 staff arriving prior to the morning peak period as the site is

anticipated to open at 07:00 (therefore it is anticipated that most staff would actually arrive at or slightly before the site opens). The proposed development is anticipated to close at 17:00 therefore to ensure a robust assessment it is assumed all staff / visitors would leave during the evening peak period.

### **Distribution and Assignment**

- 8.5.22 All HGV traffic arriving at the site will travel to / from the north of the site along Hamble Lane, arriving and departing from the site via the M27 Junction 8.
- 8.5.23 Whilst it is not yet known where the proposed staff working at the site will travel from, for the purpose of the assessment it has been assumed that given the arrangement of the junction, all staff would enter the site from the north via Hamble Lane.

### **Traffic Impact**

- 8.5.24 Table 13.15 summarises the likely traffic impact of the development on the local highway network compared to 2024, 2031 and 2035 future total baseline traffic flows during network peak periods, whilst Table 13.16 summaries the percentage impact on HGV flows. Annual Average Daily Traffic Flows have also been provided.

**Table 13.15: Local Traffic Impact – Total Traffic Flows**

Link	Morning Peak			Evening Peak			Annual Average Daily Traffic		
	(07:30 - 08:30)			(16:15 - 17:15)			(00:00-00:00)		
	Base Flow	Dev	Impact (%)	Base Flow	Dev Traffic	Impact (%)	Base Flow	Dev Traffic	Impact (%)
<b>2024</b>									
Hamble Lane in vicinity of proposed access	1396	27	1.9%	1413	23	1.63%	17573	130	0.7%
Hamble Lane north of Hound Road	1516	27	1.8%	1530	23	1.50%	19052	130	0.7%
Hamble Lane north of A3025 Portsmouth Road	2290	27	1.2%	2394	23	0.96%	29305	130	0.4%
Hamble Lane north of Tesco Access	2250	27	1.2%	2350	23	0.98%	28776	130	0.5%
<b>2031</b>									
Hamble Lane in vicinity of proposed access	1473	36	2.4%	1490	25	1.68%	18584	184	1.0%
Hamble Lane north of Hound Road	1598	36	2.3%	1614	25	1.55%	20149	184	0.9%
Hamble Lane north of A3025 Portsmouth Road	2415	36	1.5%	2526	25	0.99%	30992	184	0.6%
Hamble Lane north of Tesco Access	2372	36	1.5%	2480	25	1.01%	30432	184	0.6%
<b>2035</b>									
Hamble Lane in vicinity of proposed access	1511	27	1.8%	1530	23	1.50%	19110	130	0.7%
Hamble Lane north of Hound Road	1640	27	1.6%	1657	23	1.39%	20719	130	0.6%
Hamble Lane north of A3025 Portsmouth Road	2478	27	1.1%	2592	23	0.89%	31868	130	0.4%
Hamble Lane north of Tesco Access	2434	27	1.1%	2545	23	0.90%	31293	130	0.4%

**Table 13.16: Local Traffic Impact – HGV Flows**

Link	Morning Peak			Evening Peak			Annual Average Daily Traffic		
	(07:30 - 08:30)			(16:15 - 17:15)			(00:00-00:00)		
	Base Flow	Dev	Impact (%)	Base Flow	Dev Traffic	Impact (%)	Base Flow	Dev Traffic	Impact (%)
<b>2024</b>									
Hamble Lane in vicinity of proposed access	23	17	72.5%	17	3	17.3%	229	90	39.3%
Hamble Lane north of Hound Road	19	17	87.8%	13	3	22.6%	183	90	49.2%
Hamble Lane north of A3025 Portsmouth Road	43	17	39.7%	28	3	10.9%	395	90	22.8%
Hamble Lane north of Tesco Access	49	17	34.7%	23	3	12.8%	406	90	22.2%
<b>2031</b>									
Hamble Lane in vicinity of proposed access	25	26	105.2%	18	5	27.4%	242	144	59.5%
Hamble Lane north of Hound Road	20	26	127.3%	14	5	35.8%	194	144	74.4%
Hamble Lane north of A3025 Portsmouth Road	45	26	57.6%	29	5	17.2%	417	144	34.5%
Hamble Lane north of Tesco Access	52	26	50.4%	25	5	20.2%	429	144	33.5%
<b>2035</b>									
Hamble Lane in vicinity of proposed access	25	17	67.0%	19	3	16.0%	249	90	36.2%
Hamble Lane north of Hound Road	21	17	81.1%	14	3	20.9%	199	90	45.2%
Hamble Lane north of A3025 Portsmouth Road	46	17	36.7%	30	3	10.1%	429	90	21.0%
Hamble Lane north of Tesco Access	53	17	32.1%	25	3	11.8%	442	90	20.4%

- 8.5.25 It can be seen from Table 13.15 that the traffic associated with the proposed development would have a maximum impact on two-way total traffic flows on the local highway network of 2.4% in the morning peak, 1.7% in the evening peak and typically less than 1% throughout the day on Hamble Lane in the vicinity of the site access in the future year of 2031 (when the development traffic impact is greatest). This falls within the negligible impact (less than 30% increase in traffic).
- 8.5.26 Table 13.16 indicates that the proposed development would have a maximum impact on two-way HGV flows on the local highway network of 127.3% in the morning peak and 35.8% in the evening peak period on Hamble Lane north of the Hound Road roundabout in the future year of 2031 (when the development traffic impact is greatest – Traffic Phase 2). Across the day, the proposed development would increase HGV movements by a maximum of 74.4% to the north of Hound Road. Consequently, it can be seen that the proposed development would approximately double the number of HGV movements occurring on Hamble Lane north of Hound Road in the morning peak between years 3-7 of operation.
- 8.5.27 Whilst the impact in the morning peak technically falls within the ‘major’ magnitude category, the impact across the day falls within the ‘moderate’ magnitude category and it should be noted that the fairly large percentage increases are in part a result of the relatively low existing numbers of HGVs using Hamble Lane and thus the relative impact appears greater. Across the day, the development would have a ‘minor’ impact on Hamble Lane in the vicinity of the site access, to the north of Portsmouth Road and to the north of the Tesco Roundabout.
- 8.5.28 During Traffic Phases 1 and 3 where development traffic flows are lower, the proposed development impact would have a maximum development impact of 87.8% (moderate) in the morning peak and 22.6% (negligible) impact in

the evening peak, with traffic flows across the day increasing by circa 49% (minor) to the north of Hound Road. The HGV traffic increases on Hamble Lane to the north of Portsmouth Road and to the north of the Tesco roundabout would be <30% in the evening peak and across the day and thus have a negligible impact.

### **Junction Capacity Assessments**

8.5.29 Junction capacity assessments for the Hamble Lane corridor have been undertaken as part of the Transport Assessment Addendum (included as Appendix 7.2).

8.5.30 Junction capacity assessments have been undertaken at the following locations:

- Hamble Lane / Satchell Lane Simple Priority Junction;
- Hamble Lane / Hound Road Roundabout;
- Hamble Lane / Portsmouth Road Ghost Island Junction;
- Hamble Lane / Lionheart Way Roundabout;
- Hamble Lane / Tesco roundabout;
- Windhover Roundabout; and
- M27 Junction 8.

8.5.31 The assessments demonstrate that the impact of the development traffic on the local junctions will be modest and certainly less than the 'severe' impact test set by the NPPF).

8.5.32 Notwithstanding this, it is accepted that Hamble Lane suffers from existing queuing and delay and CEMEX have agreed to pay a reasonable and proportionate contribution towards some of the identified improvements

along the Hamble Lane corridor identified in the recently adopted LCWIP. These will help make walking and cycling more attractive options and encourage a mode shift away from the reliance on the private car on the local highway network and thus mitigating the small impact arising from the proposed development.

### **Severance**

- 8.5.33 Severance is the perceived division that can occur within a community when it becomes separated by a major traffic route. The assessment of severance pays full regard to specific local conditions, in particular the location of pedestrian routes to key local facilities and whether crossing facilities are provided or not.
- 8.5.34 The IEMA Guidelines suggest that a 30%, 60% and 90% increase in total traffic flow will respectively have a 'slight', 'moderate' and 'substantial' change in severance. However, allowance needs to be made for the presence of existing crossing facilities.
- 8.5.35 As demonstrated in Table 13.13 the development will not result in traffic increases throughout the day of more than 1% (on Hamble Lane in the vicinity of the proposed access). This is significantly under the 30% threshold identified by the IEMA guidelines as having even a 'slight' change in severance.
- 8.5.36 It is also noted that there are formal crossing facilities on Hamble Lane to the south of the proposed access (where there will be no increases in traffic movements), which take the form of an uncontrolled crossing with dropped kerbs, tactile paving and a pedestrian refuge island to help enable pedestrians to cross safely and reduce the perception of severance. To the north of the proposed development site where 'slight' traffic increases will



occur across the day, there are signalised pedestrian crossing facilities (in the vicinity of The Hamble School) to help enable safe pedestrian crossing.

### **Driver Delay**

8.5.37 Traffic delays to non-development traffic can occur:

- At the site entrance where there will be additional turning movements;
- On the highways passing the site where there may be additional flow; and
- At key junctions on the nearby highway network.

8.5.38 As summarised in paragraph 13.5.30, junction capacity assessments have been undertaken on the local highway network, which demonstrate that the impact of the development traffic (which includes delay) on the operation of local junctions during the peak period will be modest and certainly less than the 'severe' impact test set by the NPPF).

### **Pedestrian Delay**

8.5.39 The IEMA Guidelines recommend that rather than rely on thresholds of pedestrian delay; the assessor should use judgement to determine whether there will be a significant impact on pedestrian delay.

8.5.40 There is an uncontrolled pedestrian crossing with dropped kerbs, tactile paving and a pedestrian refuge island located circa 50m to the south of the proposed site access on Hamble Lane. There is also a signalised crossing located circa 500m to the south of the proposed access. It is not anticipated that there will be any material increase in traffic to the south of the proposed development, therefore, these pedestrians crossing at these facilities will be unaffected by the development.

8.5.41 To the north of the site there is a toucan crossing located on Hamble Lane in the vicinity of Hamble School. The overall increase in vehicle movements to

the north of the site when spread across the day is unlikely to have a material impact on the level of pedestrian delay. That is, there is anticipated to be less than one additional vehicle movement circa every minute on Hamble Lane (During Phase 2 of the development between 07:00-08:00 i.e., the greatest traffic generating time period), with much reduced levels of traffic during other phases and periods of the day. As such, this will not materially impact on the time it takes pedestrians to crossroads surrounding the development.

### **Pedestrian Amenity**

- 8.5.42 The IEMA Guidelines broadly define pedestrian amenity as the relative pleasantness of a journey. It is affected by traffic flow, traffic composition, pavement width and separation from traffic. A tentative threshold for changes in pedestrian amenity is when traffic flows are halved or doubled.
- 8.5.43 As set out in Table 13.13, the development will not result in traffic increases throughout the day of more than 1%. This is significantly under the 50% threshold identified by the IEMA guidelines as a tentative threshold for changes in pedestrian amenity.
- 8.5.44 Notwithstanding this, as pedestrian amenity is affected by traffic composition, and the proposal will generate additional HGV movements, pedestrian amenity has been considered further below.
- 8.5.45 There is a footway on the western side of Hamble Lane and a shared footway / cycleway on the eastern side of Hamble Lane. To the north of the site up to the railway bridge, there is a grass verge which separates the footway and shared footway / cycleway facilities from the road. Signal controlled crossing facilities are provided in the vicinity of The Hamble School.
- 8.5.46 In the hour when the development generates the most traffic (07:00-08:00), Hamble Lane is anticipated to be used by between 17-26 HGVs from the proposed development (circa one every two to three minutes). In the evening

network peak period, the development is anticipated to generate 3-5 additional HGV movements on Hamble Lane (circa one additional movement every 12-20 minutes).

8.5.47 Therefore, it can be seen that the number of HGV movements will be relatively modest on Hamble Lane.

8.5.48 Notwithstanding this, CEMEX have agreed to pay a reasonable and proportionate contribution towards some of the identified improvements along the Hamble Lane corridor identified in the recently adopted LCWIP. These will help make walking and cycling more attractive options. CEMEX have also agreed to accept planning conditions/obligations to stop vehicles exiting the site during the periods when there are the highest number of pedestrian and cycle movements along Hamble Lane, coinciding with local school drop off and collection periods (see Appendix 7.4). This will further minimise the impact on pedestrians and cyclists.

**Fear and Intimidation**

8.5.49 A further impact that traffic may have on pedestrians is fear and intimidation. This impact is dependent on the volume of traffic, its HGV composition and its proximity to people and/or the lack of protection caused by factors such as narrow pavement widths. The IEMA Guidelines suggest thresholds based on 18-hour daily flow, 18-hour HGV flow and vehicle speeds, as shown on Table 13.17.

**Table 13.17: Fear and Intimidation Thresholds**

Degree of Hazard	Average traffic flow over 18-hour day (vehicle / hour)	Total 18-hour HGV flow	Average speed over 18-hour day (mph)
Extreme	1,800+	3,000+	20+
Great	1,200-1,800	2,000-3,000	15-20
Moderate	600-1,200	1,000-2,000	10-15

Source: IEMA

- 8.5.50 The average traffic flow over an 18-hour day on Hamble Lane in the vicinity of the proposed site is between 700-1,100 vehicles per hour, which would indicate moderate levels of fear and intimidation. The average traffic flow of HGVs is less than 1,000 vehicles over an 18-hour period, which would also indicate moderate levels of fear and intimidation. Whilst the proposed development is anticipated to increase traffic, the development will not result in a change to any of the existing thresholds for fear and intimidation. It is also not anticipated that the proposed development will result in an increase in vehicle speeds.
- 8.5.51 On this basis, the proposed development is not anticipated to have a material impact in terms of fear and intimidation.
- 8.5.52 Notwithstanding this and as set out above, CEMEX have agreed to pay a reasonable and proportionate contribution towards pedestrian and cycle improvements along the Hamble Lane corridor. These will help make walking and cycling more attractive options. CEMEX have also agreed to accept planning conditions/obligations to stop vehicles exiting the site during the periods when there are the highest number of pedestrian and cycle movements along Hamble Lane (see Appendix 7.4). This will further minimise the impact on pedestrians and cyclists.

### **Accidents and Safety**

- 8.5.53 Personal injury accident data for a five-year period has been obtained and reviewed, as set out in Section 13.4 of this report.
- 8.5.54 The latest available accident records do not highlight any existing highway defects or safety issues that would be exacerbated by the proposed development.

### **Hazardous Loads**

- 8.5.55 The IEMA Guidelines acknowledge that most proposals will not result in increases in the number of movements of hazardous / dangerous loads. It is not anticipated that the proposed development will result in vehicle movements containing hazardous / dangerous loads.

### **Dust and Dirt**

- 8.5.56 Dust and dirt created by traffic can be a problem arising from the operations of certain types of development, notably quarrying and the transport of quarried materials. The guidelines suggest that problems with dust and dirt are unlikely to occur at distances greater than 50m from the road. The impact of dust and dirt will depend on the management practices undertaken on site. The proposed facility will have various management practices in place to manage dust and dirt. From a highway and transport perspective, this will include wheel washing facilities and appropriate measures to cover loads. This will appropriately manage impacts associated with dust and dirt from a highway and transport perspective.

## 8.6 Embedded Mitigation

- 8.6.1 As outlined above wheel washing facilities and appropriate measures to cover loads will be provided on site to prevent dust and dirt being deposited on the highway. The site would also have bowsers which would be used to keep the site clean where necessary. These can be secured via an Air Quality/Environmental Management Plan if necessary.
- 8.6.2 HGVs arriving and departing from the site would also be subject to a routing strategy, as part of a construction traffic and logistics plan for the site. It is intended that all HGVs arriving and departing the site would arrive and depart to the north (towards the M27) to minimise the impact on more rural and local access roads, this is reinforced through the design of the access which physically prevents HGVs from turning left out of the site (towards Hamble Le Rice).
- 8.6.3 Further embedded mitigation involves keeping the infill movements low whilst extraction is ongoing to help minimise the overall trip generation in traffic phases one and two.
- 8.6.4 Additional embedded mitigation measures are set out in Section 13.8 which relate to climate change measures.

## 8.7 Additional Mitigation, Compensation, Enhancement Measures

- 8.7.1 It is acknowledged that Hamble Lane can suffer from congestion during the peak periods of the day. To help address this Hampshire County Council came up with a package of measures to improve Hamble Lane in terms of performance/capacity known as the North Hamble Lane Improvement Scheme. However, changes to national and local policy transport agendas now mean that opportunities to bid for funding for the improvements (that primarily involve highway capacity improvements) is now extremely limited.
- 8.7.2 Consequently, HCCs approach to transport is increasingly focussed on trying to reduce the number of trips taken by private vehicles by investing in and encouraging active travel and public transport. This is in line with the emerging Local Transport Plan 4 (LTP4) and the changing national Policy agenda, in light of climate change and carbon reduction targets. It is in line with Government funding for transport schemes now largely focusing on active travel and public transport schemes. To reflect this, a Local Walking and Cycling Plan (LCWIP) for the Eastleigh District which identifies a key network of walking and cycling routes and provides a prioritised list of improvements for future investment.
- 8.7.3 Within the vicinity of the proposed development site, Windhover Roundabout to Hamble is identified as a key walking and cycling route. While the report identifies that existing conditions are good and notes that:

*“There is considerable existing infrastructure for cyclists and pedestrians along this section of route 338. Footpaths are available for its entire length, with crossing points at regular intervals. Shared use footpaths are present for much of this section, in addition to some segregated paths”.*

8.7.4 The LCWIP also identifies a number of potential improvements, as set out below and indicated on Image 13.4:

- 338.3.1 Between Windhover roundabout and the Tesco roundabout there is space to provide a segregated cycle track by reallocating space from the central verge.
- 338.3.2 Between Tesco roundabout and the toucan crossing at Lowford Hill, there is little scope to provide a segregated cycle track without significant land purchase, but it is unlikely that this route could be made suitable for mixed traffic due to high traffic levels and the important nature of this road.
- 338.3.3 For the majority of the route between Lowford Hill and Satchell Lane there is scope to widen the existing shared use path to provide a segregated cycle track; land purchase may be required in some areas.
- 338.3.4 South of Satchell Lane, the existing shared use path is very narrow in some areas and it's very constrained over the humped railway bridge. There is scope to provide a segregated cycle track but a new pedestrian/cycle bridge and some tree removal will be required. An appropriate crossing and link to the railway station should be considered.
- 338.3.5 It is feasible to widen the Hamble trail but this will require significant tree loss. Consider improving the surface quality by providing a bound surface.
- 338.3.6 Spitfire Way is a residential road with low traffic flows and could be made suitable for mixed traffic with a 20mph speed limit.
- 338.3.7 Woodpecker Walk is only two metres wide and should be widened to provide a segregated cycle track.



- 338.3.8 Hamble House Gardens and Meadow Lane are residential roads with low traffic flows so is appropriate for mixed traffic, which could be further reinforced with a 20mph limit

**Image 13.4: Extract of Eastleigh LCWIP Windhover Roundabout to Hamble Lane Improvement Plan**



- 8.7.5 CEMEX have agreed to provide a reasonable and proportional contribution towards helping to deliver some of the identified walking and cycling improvements, which will help make walking and cycling more attractive and encourage a mode shift away from the reliance on the private car and thus mitigating the development impact.
- 8.7.6 CEMEX have also agreed to accept planning conditions/obligations to stop vehicles exiting the site during the periods when there are the highest number of pedestrian and cycle movements along Hamble Lane (see Appendix 7.4). This will further minimise the impact on pedestrians and cyclists.

## 8.8 Impact of Climate Change

- 8.8.1 The proposed development is well located to good quality walking and cycling facilities, public transport services, and will provide cycle parking for all permanent staff on the site. As such there are realistic opportunities for staff to travel by sustainable modes of transport to reduce the emissions generated by staff commuting trips.
- 8.8.2 CEMEX fleet drivers are trained in Safe and Fuel-Efficient Driving (SAFED) scheme and are regularly assessed on their fuel usage and driving style, in order to reduce the quantity of fuel used and as such, carbon dioxide and other emissions accordingly. CEMEX also runs a dedicated programme called Be CareFUEL focussing on all aspects of fuel usage including a general awareness campaign, fuel saving information in driver handbooks, MPG reports by driver, vehicle, type and locations, allowing for specific targeting of areas for improvement.
- 8.8.3 A 50% bio-diesel fuel blend is also being trialled and subject to outcomes may be rolled out across the business. CEMEX also focus on logistics planning to maximise payload and minimise empty running vehicles, decreasing overall journeys.
- 8.8.4 All the CEMEX vehicles and our sub-contractors operate Euro VI vehicles which are the most modern and clean engine type. It is the EU standard for new vehicles with the lowest NO<sub>2</sub> emissions. The CEMEX fleet and our sub-contractor vehicles currently operating in this area are all less than 5 years old. Typically, we replace our fleet every 5 years to ensure our vehicles remain modern, efficient and with low emissions.
- 8.8.5 Finally, the location of the site will prevent vehicles driving from further afield to bring mineral to the local area, thereby saving emissions overall.

## 8.9 Conclusion

8.9.1 This chapter has assessed the environmental effects of the predicted increases in traffic associated with the proposed development. The long-term operational effects of the development on the transport network and people will be negligible.

8.9.2 A summary of the assessment is tabulated in Table 13.18.

**Table 13.18: Summary of Environmental Effects**

Potential impact	Nature of impact	Significance prior to mitigation	Mitigation / Enhancement measures	Residual effect
Severance	Direct	Negligible	Environmental Management Plan and HGV Routing Management Plan.  Contributions towards walking and cycling improvements identified in EBC's LCWIP  Restriction on HGVs exiting the site when there are the highest number of walking and cycling movements	Negligible
Driver Delay	Direct	Negligible		Negligible
Pedestrian Delay	Direct	Negligible		Negligible
Pedestrian Amenity	Direct	Negligible		Negligible
Fear and Intimidation	Direct	Negligible		Negligible
Accidents and Safety	Direct	Negligible		Negligible
Hazardous Loads	Direct	Negligible		Negligible
Dirt on the Highway	Direct	Negligible		Negligible