



8.0 Transport and Access

8.1 Introduction

- 8.1.1 This chapter of the report provides an assessment of the likely significant environmental effects of the Proposed Development on the transport network and people.
- 8.1.2 The chapter describes the assessment methodology, the baseline conditions at the Application Site and its surroundings; the likely significant environmental effects, the mitigation measures required to prevent, reduce or offset any significant adverse effects, and the likely residual effects after these measures have been employed. This chapter has been prepared by i-Transport LLP.
- 8.1.3 A full Transport Assessment (TA) (Appendix:8.1) has been produced as a Technical Appendix. The TA has been undertaken in consultation with officers of Dorset County Council (DCC) as the local highway authority and Highways England as the highway authority for the strategic road network, in this instance, the A303. The TA has been produced in accordance with the guidance set out in the 'Planning Practice Guidance' (Department for Communities and Local Government)ⁱ. In addition, a Framework Travel Plan (Appendix: 8.2) has been produced as a separate Technical Appendix, which sets out measures that will be introduced to reduce single occupancy car journeys.
- 8.1.4 The environmental impact of the road traffic generated by the development proposal requires an assessment against the criteria set out in the Institute of Environmental Management and Assessment's 'Guidelines for the Environmental Assessment of Road Traffic'.ⁱⁱ

8.2 Policy and Guidance

Planning Policy

- 8.2.1 The following policy documents have been used in the EIA process:
- The National Planning Policy Framework (NPPF)ⁱⁱⁱ;
 - National Planning Practice Guidance (NPPG)^{iv};
 - North Dorset Local Plan – Part 1^v; and
 - Bournemouth, Poole and Dorset Local Transport Plan 3 (2011-2026).

National Planning Policy Framework (March 2012)

- 8.2.2 The NPPF sets out the Government's planning policies and how these are expected to be applied. Paragraph 14 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 which should be seen as the golden thread running through both plan-making and decision-making."
- 8.2.3 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 (ref. paragraphs 24 and 36).

- 8.2.4 In terms of specific transport policies within the NPPF, paragraph 32 states that decisions should take account of whether:
- "The opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure.

Safe and suitable access to the site can be achieved for all people; and

Improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of the development are 'severe'."

Planning Practice Guidance

- 8.2.5 The National Planning Practice Guidance (NPPG) 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 NPPG.

North Dorset Local Plan – Part 1

- 8.2.6 The North Dorset Local Plan – Part 1 was adopted in January 2016. The document sets out the Council's proposed Development Strategy for the District which guides decisions on the use and development of land in the district and included proposed strategic policies and proposed site allocations for housing, employment and other uses.
- 8.2.7 Policy 21 – 'Gillingham Strategic Site Allocation' sets out the requirements of the development.
- 8.2.8 Further details of local policy are provided in Section 3 of the Transport Assessment.

Bournemouth, Poole and Dorset Local Transport Plan 3

- 8.2.9 The Local Transport Plan 3 (LTP) sets out the objectives for improving transport up to 2026 in Bournemouth, Poole and Dorset. The LTP sets out the following vision:
- "A safe, reliable and accessible low carbon transport system for Bournemouth, Poole and Dorset that assists in development of a low carbon economy, maximises the opportunities for sustainable development and respects and protects the area's unique environmental assets."
- 8.2.10 The vision is supported by Policy LTP A-1 which states:
- "As far as possible, the LTP will support and encourage development and redevelopment proposals which minimise the impact of private car by reducing the need to travel, as well as the distance travelled. Working with the Local Planning Authorities and Regeneration Agencies, the authorities will encourage Local Development Documents and regeneration and investment strategies to have regard to:
- Influencing the demand for travel;
 - Achieving a shift in transport modes to alternatives to the private car;
 - Making the best use of existing transport infrastructure and services;



- Improving connectivity locally and in the wider area where appropriate, including the need for improvements to transport and infrastructure; and
- Providing high levels of accessibility for all to local services.

- 8.2.11 Policy LTP A-3 also requires new development to have due regard to mitigating the off-site impact of traffic generated by new development and also to promote sustainable travel options.
- 8.2.12 Of the policies relevant to Gillingham, Policy LTP H-5 sets out an aim to increase the role of rail travel in Dorset by improving rail-bus integration to Gillingham station for access to the London Waterloo - Salisbury - Exeter service.
- 8.2.13 Policy LTP N-7 sets out the smaller highway improvements that have been identified as necessary to support planned growth in rural Dorset during the LTP3 period, including a southern link road within Gillingham and a new link between the B3081 and A30 in Shaftesbury.

Summary

- 8.2.14 The National Planning Policy Framework confirms that there is a presumption in favour of sustainable development. Safe and suitable access to sites should be achieved. Account should be taken of whether the opportunities for sustainable transport modes have been taken up, depending on the nature and location of the site, to ensure the need to travel will be minimised and the use of sustainable transport modes can be maximised. The assessment should take account of whether improvements can be undertaken within the transport network that cost-effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.
- 8.2.15 The Planning Practice Guidance provides guidance on when transport assessments and travel plans are likely to be required, and their content.
- 8.2.16 The strategic allocation is set out under Policy 21 within North Dorset District Council's (NDDC) adopted Local Plan Part 1 (adopted January 2016). The main local policy requirements in transport terms are as follows:
- A 'Principal Street' linking the B3081 Shaftesbury Road and B3092 New Road;
 - Off-site highway improvements to the B3081 Shaftesbury Road / B3092 New Road junctions and improvements to the Shaftesbury Road/Le Neubourg Way corridor;
 - Off-site measures to support the use of public transport, cycling and walking; and
 - Financial contribution towards the provision of a link road between the B3081 and the A30 at Enmore Green.

8.3 Methodology and Scope

Scope of the Assessment

- 8.3.1 The assessment has been prepared in accordance with the proposed technical scope set out in the EIA Scoping Opinion (**Confirm Appendix**) and response from NDDC dated 12 December 2014. In transport terms, this sets out the following requirements:

- The ES should include a comprehensive Transport Assessment and Framework Travel Plan prepared in accordance with current guidance and DCC as local highway authority;
- The transport chapter of the ES should address the following transportation and access related effects:
 - Temporary generation of construction-related traffic during the construction works;
 - Temporary effects to pedestrians, cyclists, buses and road vehicle users during the construction phase;
 - Effects upon traffic flows and capacities of the local highway network; and
 - Effects upon pedestrian and cycle accessibility.

- 8.3.2 The Institute of Environmental Assessment (IEA) has been prepared 'Guidelines for the Environmental Assessment of Road Traffic (Guidance Note No. 1).' These have been used as the basis for the method of assessment of the environmental effects of traffic in this chapter. The method for each effect assessed is set out below.

- 8.3.3 The IEA Guidance identifies a number of environmental effects that could arise from changes in vehicular travel demand. The following paragraphs provide a narrative on the assessment method for each of these indicators, and identify those which are assessed in this chapter and those that are assessed elsewhere.

Severance

- 8.3.4 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. The IEA 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

- 8.3.5 Traffic delays to non-development traffic can occur:
- At the site entrances 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.

- 8.3.6 Micro-simulation models are used for complex study areas covering a number of junctions over a wide geographical area.

Pedestrian Delay

- 8.3.7 The Proposed Development will bring about increases in the number of vehicle and pedestrian movements. In general, increases in traffic levels are likely to lead to greater increases in delay to pedestrians seeking to cross roads. The IEA Guidelines recommend that rather than rely on thresholds of



pedestrian delay, the assessor should use judgement to determine where there will be a significant impact on pedestrian delay.

Pedestrian Amenity

- 8.3.8 The IEA Guidelines broadly define this 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 where traffic flows are halved or doubled.

Fear and Intimidation

- 8.3.9 A further effect that traffic may have on pedestrians is fear and intimidation. This effect is dependent on the volume of traffic, its Heavy Goods Vehicle (HGV) composition and its proximity to people and/or the lack of protection caused by factors such as narrow footway widths. The IEA Guidelines suggest thresholds based on 18-hour daily flow, 18-hour HGV flow and vehicle speeds, as shown on Table 12.1.

Table 8.1 - 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

- 8.3.10 The effect of the additional traffic from the Proposed Development is discussed in terms of magnitude of increase, the existing accident record and the effect of off-site highway and transportation works.

Hazardous Loads

- 8.3.11 The IEA Guidelines acknowledge that most developments 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 Proposed Development has been evaluated against this list.

Dirt on the Highway

- 8.3.12 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 impact of 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. An assessment of dust is provided in the Air Quality chapter.

Extent of the Study Area

- 8.3.13 The extent of the study area has been agreed with DCC and HE and covers the following area:
- The B3081/B3092 corridor through the urban area of Gillingham between:
 - The junction with Cole Street Lane to the south; and

- The B3081 / Queen Street / Bay Road junction to the north.
- The High Street / Queen Street link through the town centre;
- The B3092 New Road (as far south as the junction with Cole Street Lane).
- The A30 / A350 / B3081 'Ivy Cross Roundabout' in Shaftesbury; and
- The A30 / B3092 junction in East Stour.

Assessment Year

- 8.3.14 In accordance with the requirements of the NPPF, PPG and Circular 02/13 (The Strategic Road Network and Delivery of Sustainable Development) an assessment of the transport impact of the proposed development has been undertaken for the year of opening of the development (2021). The assessment includes traffic associated with the full development proposals, taking account of appropriate background traffic growth and committed development traffic.
- 8.3.15 The 2021 assessment year enables the full environmental impact of the development to be assessed without higher levels of natural background traffic growth to 2031. The background traffic growth would ultimately dilute the impact of the development in percentage terms, therefore, the assessment year of 2021 provides a robust assessment of the environmental impacts of the proposed development.
- 8.3.16 The TA also provides an estimate of the impacts of the development in 2031 but not for mitigation purposes, rather for information for HE and DCC to inform longer terms planning.

Consultation

- 8.3.17 The scope and structure of the TA and Framework Travel Plan has been discussed and agreed with DCC and Highways England (HE). In addition, transport and highways matters has been raised and discussed in various additional forums/meetings with NDDC and the public. The specific consultation is summarised in Table 8.2 below.

**Table 8.2 - Consultee List - Transport and Highways Matters**

Consultee	When / How Consulted
Dorset County Council	Various meetings/discussions with North Dorset District Council, Dorset County Council and Highways England between 2013 and 2017
Highways England	
North Dorset District Council	
Public	Concept Plan Workshop – 15 March 2013; Masterplan Framework Public Exhibition – 3 November 2015; Pre-Application Exhibition – 13 September 2017; and

Method of Baseline Data Collection

Site Visit / Desk Study

- 8.3.18 A series of site visits during a variety of different periods, including weekday morning and evening peak periods and off-peak periods, have been undertaken since 2009 to inform the assessment that has been undertaken. This has been supplemented by desktop studies where appropriate.

Traffic Surveys

- 8.3.19 A series of traffic surveys have been undertaken on the local and strategic highway network in early December 2016 and February 2017 in order to establish the baseline traffic conditions in the vicinity of the site.
- 8.3.20 In agreement with NDDC, DCC and HE an S-Paramics micro-simulation model of Gillingham has been developed to assess the transport impacts of the development proposals on Gillingham SSA. The data from the traffic surveys has been used to input in to the S-Paramics micro-simulation model.
- 8.3.21 The extent of the scope of the model has been agreed with DCC and HE and the model covers the following study area:
- The B3081/B3092 corridor through the urban area of Gillingham between:
 - The junction with Cole Street Lane to the south; and
 - The B3081 / Queen Street / Bay Road junction to the north.
 - The High Street / Queen Street link through the town centre; and
 - The B3092 New Road (as far south as the junction with Cole Street Lane).

Identification of Sensitive Receptors

- 8.3.22 In order to determine the extent of the local highway network to be assessed within this chapter the following thresholds have been applied in accordance with the IEA guidelines:

- Include links where traffic flows are expected to increase by more than 30%, or where HGV flows are expected to increase by more than 30% as a result of the Proposed Development; and
- Include links in proximity to sensitive receptors as defined previously, where traffic flows are expected to increase by more than 10% as a result of the Proposed Development.

- 8.3.23 Paragraph 3.20 of the IEA guidelines sets out that 'sensitive' locations include:

"accident blackspots, conservation areas, hospitals, links with high pedestrian flows, etc. Normally it would not be appropriate to consider links where traffic flows have changed by less than 10% unless there are significant changes in the composition of traffic, e.g. a large increase in the number of Heavy Goods Vehicles."

- 8.3.24 Having regard to the above, in transport terms locations which are considered to be sensitive receptors include:

- Accident blackspots;
- Conservation areas;
- Schools;
- Health facilities (such as GP surgeries / Dental Practices etc.); and
- Community facilities (such as parks, community centres etc.).

- 8.3.25 Against this background the sensitive receptors identified within the study area are presented in Table 8.3 below along with the distance to the closest link to the S-Paramics model / study area.

Table 8.3 - Sensitive Receptors within the Study Area

Sensitive Receptor	Nearest Link in Study Area	Distance from Receptor to Link (m)*
Education		
Gillingham School	Newbury (High Street)	230
Gillingham Primary School	Newbury (High Street)	280
Saints Mary the Virgin Church of England Primary school	B3081 North of Access	280
Topsie Rabbit Kindergarten	B3081 South of B3092	65
Fly start Pre-School	B3081 South of B3092	45
Little Harts Day Nursery	B3081 North of Access	375
Health Facilities		
The Barn Surgery	Newbury (High Street)	30
ADP Dental Co	Newbury (High Street)	100



Community Facilities		
Recreation Ground	Newbury (High Street)	280
Gillingham Football Club	Newbury (High Street)	370
Youth Centre	B3092 North of Wyke Road	15
Gillingham Library	B3081 South of B3092	85
East Stour Village Hall	B3092 Back Street	30
Barton Hill Recreation Ground, Shaftesbury	A350 Little Content Ln (South)	55
Heritage		
Kings Court Palace Scheduled Monument	B3081 North of Access	195

*Distances are measured from the nearest point of the sensitive receptor to the road.

- 8.3.26 For the purposes of this assessment a threshold of either 200m from the closest link and an increase exceeding 10% will be used when comparing the 2021 Baseline to the 2024 peak construction traffic, 2021 with development, 2021 with development and mitigation, and 2031 with development and mitigation scenarios.

Significance Criteria

- 8.3.27 Each of the identified effects is assessed in terms of their:
- Type – beneficial or adverse;
 - Duration – permanent or temporary, long-term or short-term; and
 - Nature – direct, indirect, primary, secondary or cumulative.
- 8.3.28 The significance of each effect is assessed using the following four-point category scale, before and after development (i.e. potential effect in the reference case and residual effect post development respectively) for both the operational and construction phases. In the absence of published guidelines, the following terms are used:
- Substantial – considerable effect (by extent, duration or magnitude) of more than local significance (which can be beneficial or adverse);
 - Moderate – limited effect (by extent, duration or magnitude) which may be considered significant (which can be beneficial or adverse);
 - Minor – slight, very short or highly localised effect of local significance (which can be beneficial or adverse); and
 - Negligible – no discernible beneficial or adverse effect to the existing environment.
- 8.3.29 This Chapter considers all effects which are 'moderate' or 'substantial' as significant effects from the Development Proposal (either beneficially or adversely).

- 8.3.30 For the purposes of this chapter, the effect of the change in traffic volumes on highway users (pedestrians, cyclists, motorists etc.) has been assessed. Given that the receptor is people, the sensitivity of the receptor to change is potentially high. The assumption is therefore utilised in subsequent analysis in relation to specific highway effects.
- 8.3.31 The significance assessment will also consider whether effects are direct or indirect, temporary or permanent, and short, medium or long-term. Effects that are predicted of moderate or greater are considered to be significant for the purpose of this assessment.
- 8.3.32 An assessment of road links included in the Gillingham S-Paramics Model where traffic flows are forecast to change in line with the above criteria following the introduction of development traffic has been undertaken in relation to forecast two-way 24-hour Annual Average Daily Traffic (AADT), 18-hour Annual Average Weekday Traffic (AAWT) and AM and PM peak hour and three-hour peak period flows. This assessment provides a full profile of anticipated changes in the traffic flow volume as a result of the development proposals and is considered to provide a robust assessment.
- 8.3.33 This is considered to provide a profile of traffic flow conditions over the entire day and week period. No sensitive links have been identified by the LPA during scoping discussions and accordingly this 'first sweep' assessment has been carried out in relation to IEMA Rule 1. More detailed assessments will then be carried out on identified links in relation to the potential environment effects identified in paragraphs 8.3.4 and 8.3.12.

8.4 Baseline Environment

- 8.4.1 Baseline conditions relating to existing transport conditions in the local area are outlined below. Section 4 and 5 of the Transport Assessment also set out details on local travel characteristics and a detailed review of existing transport conditions in the local area.

Walking and Cycling

- 8.4.2 The local highway network in the vicinity of the site provides a range of pedestrian and cycling provision.
- 8.4.3 The footway on the B3081 Shaftesbury Road commences immediately south of the existing Park Farm Roundabout, with the footway on the eastern side extending as far as the existing bus lay-by. At the roundabout, there is tactile paving and pedestrian refuge islands on all arms providing safe crossing points. The existing eastern arm of the Park Farm Roundabout, serving Kingsmead Business Park, provides 2.0m wide footways on both sides of the carriageway as far as the site boundary.
- 8.4.4 Continuing northwards, there are typically footways on both sides of the B3081 Shaftesbury Road towards Gillingham town centre. The footways generally vary between 1.2m and 2.0m in width and is therefore sufficient to accommodate a wheelchair or pushchair, or for two pedestrians to pass each other for the majority of its length.
- 8.4.5 The B3081 Shaftesbury Road forms a series of signalised junctions with the principal minor road junctions along its length. The Shaftesbury Road / Kingfisher Avenue signalised junction provides dedicated pedestrian crossing facilities on the southern and western arms of the junction. There are also advanced stop lines (ASL) for cyclists on these approaches. The junctions with Rookery Close / Hine Close and King John Road provide dedicated crossing facilities on all arms of the junctions.
- 8.4.6 There is short section, approximately 45m in length where there is no footway on the western side of the carriageway between Park Farm Roundabout and the access to Lockwood Farm. There is also a section approximately 125m in length on the eastern side of the carriageway between Kingscourt Road and King John Road where there is no footway.



- 8.4.7 There is a pedestrian refuge island located on Shaftesbury Road approximately 50m south of the junction with the B3092 New Road to assist pedestrians crossing. The Shaftesbury Road / New Road signalised junction provides dedicated pedestrian crossing facilities on the western and northern arms. There is currently no pedestrian provision at the B3081 Shaftesbury Road / Newbury (High Street) Junction mini-roundabout junction. A 2.0m wide, lit footpath link located immediately north of the railway overbridge provides direct pedestrian access to Gillingham railway station.
- 8.4.8 The residential development located to the west of the Park Farm parcel, including Cale Way and Fern Brook Lane, provides good quality pedestrian network with a combination of 2.0m wide footways and shared surface squares. These provide pedestrian linkages to the B3081 Shaftesbury Road via Rockery Close, which has 1.8m wide footways on both sides of the carriageway, and Lockwood Terrace. This residential development provides lightly trafficked residential roads suitable for cycling.
- 8.4.9 The residential development located to the north of the central parcel including Kingfisher Avenue, Pheasant Way, Chaffinch Close and Jay Walk provide a series of good quality 2.0m wide, lit footways along lightly trafficked, slow speed residential roads and provides an attractive pedestrian route. These pedestrian facilities provide a link to Bridge Close, which has 1.8m wide footways on either side of the carriageway, for access onto the B3081 Shaftesbury Road, approximately 500m south of the town centre.
- 8.4.10 These links, combined with the footways on Shaftesbury Road, provide a direct link from the central and Park Farm parcels towards Gillingham town centre.
- 8.4.11 A 3.0m wide pedestrian and cycling footbridge over the River Loddon between Wren Place and Lodden View provides a direct connection between the residential development to the north of the central parcel and Brickfield Business Park, as well as to Gillingham rail station, via Addison Close.
- 8.4.12 Addison Close is a lightly trafficked residential road which provides a 1.8m wide footway on either side of the carriageway. The existing footway on the southern side ends approximately 90m east of the junction with the B3092 New Road.
- 8.4.13 There is footway provision on both sides of the B3092 New Road through the built up area, varying in width between 1.1m and 1.7 in wide. To the south, the footway provision on New Road ends to the south of the junction providing access to Brickfield Business Park.
- 8.4.14 Approximately 150m to the north of Addison Close, there is a public footpath located along Brickyard Lane and together with an informal link to the southern facing platform, provides a pedestrian route to the south of the railway station. The footways on both sides of New Road continue north-eastwards towards the junction with the B3081 Shaftesbury Road.
- 8.4.15 To the west of the B3081 Shaftesbury Road / Newbury (High Street), there are 2.0m wide footways on both sides of Le Neubourg Way as far as the junction with the B3081 Wyke Road. The Le Neubourg Way / Station Road signalised junction provides dedicated pedestrian crossing facilities on the northern, eastern and western arms of the junction. There are also ASLs for cyclists on these approaches.
- 8.4.16 The B3092 Le Neubourg Way / B3081 Wyke Road Junction provides pedestrian crossing facilities on all arms of the junction with an ASL on the B3081 Wyke Road approach. The eastern arm is a dedicated demand dependent cycle-only link with push-button facility. This facility accommodates National Cycle Network (NCN) routes 25 and 253 which run through Gillingham. National Route 25 provides a link to Frome and Poole and National Route 253 runs in a loop around North Dorset linking Blandford Forum, Shaftesbury, Gillingham, Sturminster Newton and Okeford Fitzpaine.
- 8.4.17 Throughout the town centre there is good pedestrian provision, with footways generally provided on both sides of the carriageway throughout. There are good quality, wide footways on both sides of the

carriageway on the High Street and Newbury with dropped kerbs and tactile paving on the raised-table junctions with Barnaby Mead, School Road, School Lane and Hardings Lane.

- 8.4.18 Approximately 70m north-westwards of the Shaftesbury Road / Newbury (High Street) junction, Hardings Lane forms the principal pedestrian link to Gillingham Secondary School and Gillingham Leisure Centre and provides 1.4m wide footways on both sides of the carriageway. Parking restrictions are also in place during school hours making it a safe environment for children walking to the school.
- 8.4.19 Access to Gillingham Primary School is via School Road where a 1.8m wide footway is provided on the western side of the road. The primary school can also be accessed via School Lane where a footway is provided on the eastern side of the carriageway.

Public Rights of Way

- 8.4.20 There is a network of Public Rights of Way that run through and near the site as shown in Figure 8.1, including:
- Footpath No. 64/33 provides a north-south connection between Bridge Close and Cole Street Lane via Jay Walk and Pheasant Way;
 - Footpath No.64/34 – provides a connection across the River Loddon to the west of the site through Addison Close and the Meadows;
 - Footpath No.64/35 runs through the site and provides a northeast-southwest connection between Chaffinch Chase and Cole Street Lane;
 - Footpath No.64/47 and 64/48 – runs west from New Road along Brickyard Lane and across River Stour to the west of the railway station and continues north towards the B3081 Le Neubourg Way;
 - Footpath No. 64/48 – routing south to north from New Road through Brickfields Business Park and Industrial Estate;
 - Bridleway No. 69/6 routing west to east between Kingscourt Road and Kings Courts Wood; and
 - Footpath No. 69/20 – routing north to south from Kings Court Place to Woodwater Farm and beyond to the east of Gillingham town centre.

Public Transport

Bus

- 8.4.21 There are a number of bus stops located in the proximity of the site. There is a southbound bus stop, complete with bus lay-by located on the B3081 Shaftesbury Road approximately 100m to the south of the Park Farm roundabout. The northbound bus stop is located some 50m to the north of the junctions. There are further bus stops located on Shaftesbury Road towards the town centre, including south of the junction with Kingscourt Road and south of the junction with Rookery Close. On the western part of the site, there are bus stops located on the B3092 New Road at the access to Brickfields Business Park, north of Addison Close and at the Madjeston bends to the west of Cole Street Lane. These bus stops generally comprise a flag on a pole with timetable information and no shelter provision.



- 8.4.22 The principal bus routes serving these stops are the X9 and 59 which provide one service every 2-hours between Shaftesbury and Gillingham. From the New Road bus stops the 309 service provides one service every 2-hours between Blandford and Gillingham.
- 8.4.23 The first available service towards Shaftesbury leaves the stops nearest the Park Farm Roundabout at 0727 and the last return journey is at 1819. The earliest service for Gillingham town centre leaves at 0805 and the last return journey is at 1757.
- 8.4.24 Additional services are available from Gillingham Railway Station providing links to destinations further afield including Salisbury and Frome.
- 8.4.25 A summary of the bus services and frequencies are provided in Table 8.5.

Table 8.4 - Bus Routes and Frequencies

Bus Stops	Service		Typical Daytime Frequency		
			Mon-Fri	Sat	Sun
B3081 Shaftesbury Road (Park Farm and Ganymede)	X2	Shaftesbury-Gillingham	Half Hourly Service (0805-1822)	2-Hourly Service (0852-1752)	No Service
	659	Shaftesbury – Gillingham – Wincanton	1 daily return journey only (School Service)	No Service	No Service
B3092 New Road (Madjeston)	X4	Sturminster Newton-Gillingham-Bourton	2-Hourly Service (0824-1747)	3 services per day	No Service
Gillingham Railway Station	25	Salisbury-Gillingham-Tisbury	1 daily return journey only	No Service	No Service
	80	Gillingham – Kilmington-Frome	1 return journey on a Wednesday	No Service	No Service

- 8.4.26 With regards to community transport services, there is a wide range of pre-bookable transport services for the communities across North Dorset, including Gillingham. A summary of the services provided is set out below:

- Gillingham Area Voluntary Car Link Scheme – a community run scheme offering transport for people who are unable to/ find it difficult to use public transport. The scheme matches people requiring transport with volunteer drivers willing to provide transport;
- North Dorset Community Accessible Transport (NORDCAT) – a door to door on demand service for people aged 60 and over; and
- Age Concern Gillingham – a voluntary car scheme which takes people to medical appointments.

- 8.4.27 PLUSBUS also offers a weekday trip across Dorset to neighbouring villages for anyone unable to easily access public transport.

Rail

- 8.4.28 Gillingham rail station is situated between the development site and the town centre, approximately 1.2km from the centre of the site. The main access to the station is from Station Road to the north of the site. The station is also accessible on foot via an off-road pedestrian route which runs parallel to the railway line and accessed from the B3081 immediately to the north of the road over rail bridge. There is also a separate pedestrian link to the rail station via Brickyard Lane to the south of the station and the footbridge.
- 8.4.29 Gillingham rail station is situated on the West of England main line between London and Exeter St David's and is operated by South West Trains. It is the only rail station within North Dorset. Gillingham rail station has facilities for some 34 sheltered cycle parking spaces and provides some 140 car parking spaces, including four accessible spaces.
- 8.4.30 Table 8.6 summarises the destinations, typical frequencies and journey durations for services from Gillingham Rail Station.

Table 8.5 - Gillingham Station - Rail Services

Destination	Typical Frequency		Typical Journey Duration
	Peak	Off-Peak	
Sherborne	30 mins**	Hourly	15 mins
Yeovil Junction	30 mins**	Hourly	20 mins
Salisbury	30 mins*	Hourly	26 mins
Exeter St David's	Hourly	Hourly	1 hr 25 mins
London Waterloo	30 mins*	Hourly	2 hrs

Source: National Rail
 Note: * = AM Peak only
 Note ** = PM Peak only



- 8.4.31 Table 8.6 demonstrates that Gillingham rail station provides frequent rail services to a number of destinations including Sherborne, Yeovil, Salisbury, as well as London. This provides the opportunity for future residents to travel further afield for leisure, employment and retail opportunities via direct connections.
- 8.4.32 Bus service 68 provides a frequent connection from Yeovil Junction Station to Yeovil town centre, from Monday to Saturday. This service departs from Yeovil Junction Station to Yeovil Bus Station with an hourly frequency from 0705 to 1935. Journeys to Yeovil town centre can therefore be easily accommodated by a linked trip by rail and bus.

Local Highway Network

- 8.4.33 The B3081 Shaftesbury Road is situated between the Park Farm and central parcels of the Gillingham SSA and forms a north/south connection through Gillingham. It is subject to a 30mph speed limit through the built-up area and is approximately 6.0m wide to the south of the town centre. To the south of the Park Farm Roundabout, the speed limit changes to 40mph and approximately 75m south of Cole Street Lane, the route is derestricted.
- 8.4.34 Cole Street Lane runs along the southern boundary of the central parcel of the site. This is a narrow single carriageway road with passing places for vehicles to pass. Footpaths N64/78 and N64/2 cross this road to continue south and this lightly trafficked environment provides safe pedestrian and cycle access.
- 8.4.35 To the south of the site, the B3081 Shaftesbury Road forms a direct link to Shaftesbury via a junction with the A30 and A350 (Ivy Cross Roundabout). The A350 provides a link to the A303 to the north and the A30 provides a link to Sherborne and Yeovil to the west and Salisbury to the east.
- 8.4.36 To the north of the site, the B3081 Shaftesbury Road forms a series of signalised junctions with Kingfisher Avenue, Rookery Close, King John Road, and the B3092 New Road, which is located immediately to the south of the road over rail bridge on the edge of the town centre. The B3092 New Road forms a link to the villages of East and West Stour to the south of Gillingham and also provides access to the A30.
- 8.4.37 The B3081 continues in a north-westwards direction towards the town centre and forms a mini-roundabout with Newbury (High Street). This provides direct access to the town centre, as well as Gillingham Secondary School, via Hardings Lane. To the north of the town centre, Queen Street is a one-way street northbound with a 30mph speed limit. Queen Street connects with St Martins Square to the south. Along St Martins Square speeds humps and a 20mph zone have been implemented to reduce the speed of vehicles through the town centre.
- 8.4.38 To the north-west of the mini-roundabout, the B3081 is known as Le Neubourg Way and is approximately 7.3m wide and built to modern design standards. It was opened in 1990 as relief road to remove vehicle movements from the historic town centre. It forms a signalised junction with Station Road, which provides access to Gillingham Rail Station and an alternative route to the town centre, some 250m to the west, and also forms a signalised junction with the B3092 approximately 500m further to the north-west at Wyke. The B3081 Wyke Road provides a link to Wincanton and the A303 at Leigh Common, whilst the B3092 continues northwards to provide access to Mere and the A303.

Strategic Road Network

- 8.4.39 The A303 is located approximately 7km to the north of the site and forms part of the national strategic road network managed by Highways England. It provides a link for long distance journeys to Andover, Basingstoke, and the M3 motorway to the east and Honiton, Exeter, the A30, and the M5 to the west.
- 8.4.40 There are currently three grade-separated junctions located on the A303 which serve Gillingham and the surrounding area, and, from east-to-west, are as follows:

- A303 / B3095 junction, Mere;
- A303 / B3092 junction, Mere; and
- A303 / B3081 junction, Leigh Common ('Tinker's Hill').

- 8.4.41 The A303 / B3095 junction is located approximately 600m to the north-east of Mere town centre and has east facing slips only with both nearside diverge and merging tapers. The A303 westbound off-slip joins the B3095 at a simple priority junction some 250m from the mainline carriageway whilst the access to the eastbound on-slip is via a ghost-island junction 150m to the north.
- 8.4.42 The A303 / B3092 junction is located approximately 2.0km to the west of Mere town centre. The A303 eastbound mainline junction forms a compact grade-separated arrangement with a nearside diverge taper. The off-slip forms a priority junction with New Road approximately 85m to the north of the mainline carriageway. The A303 westbound off-slip comprises a diverge taper and joins the B3092 Castle Street at a simple priority junction some 300m from the mainline carriageway.
- 8.4.43 The A303 / B3081 junction ('Tinker's Hill') is located approximately 7.0km to the north-west of Gillingham town centre. The A303 eastbound mainline junction forms a compact grade-separated arrangement with a nearside diverge taper. The off-slip forms a priority junction with New Road, which provides a link to Bourton, approximately 80m to the north of the mainline carriageway. The A303 westbound mainline junction provides both nearside diverge and merging tapers. The off-slip forms the major arm of a priority junction with the B3081 some 100m to the south of the mainline carriageway.

Existing Traffic Flows

- 8.4.44 A series of traffic surveys have been undertaken on the local highway network have been undertaken in early December 2016 and February 2017 in order to establish baseline and forecast conditions in the vicinity of the site.
- 8.4.45 The annual average daily traffic flows (AADT) on the local highway network for the 2016 base has been estimated using the AM three-hour peak period flows derived from the S-Paramics Model and factored by available local Automatic Traffic Count (ATC) data and are summarised for each location in Table 8.7 below. The location of the road links are also identified in Figure 8.2.

Table 8.6 - Local Highway Network - Baseline Two-Way Traffic Flows (Total Vehicles)

Site ID	Location	2016 Two-Way AADT (Vehicles)
		2016 Base
1	B3081 South of Access	11,485
2	B3081 North of Access	11,495
3	B3092 South of Principal Access (South of Cole St Lane)	5,611
4	B3092 North of Brickyard Lane	7,185
5	B3081 South of B3092	12,917



6	B3081 North of B3092	17,402
7	B3092 between Wyke Rd and Station Rd	14,851
8	B3081 Wyke Rd	9,716
9	B3092 North of Wyke Rd	11,962
10	Newbury (High Street)	4,868
11	B3092 south of Brickfields Business Park	5,612
14	A350 Grosvenor Road	14,495
15	A350 Little Content Lane	20,244
16	B3081 Bleke Street	13,444
17	B3092 Back Street	4,120
18	B3092 Scotchey Hill	5,849
19	A30 (West)	4,960

8.4.46 The traffic flows on the B3081 corridor immediately to the west of the Park Farm parcel are broadly some 11,500 two-way vehicles AADT. The AADT on the B3092 New Road immediately to the west of the central parcel are lower with a maximum flow of 5,600 vehicles.

8.4.47 The highest flows within the study area are observed on the B3081 Le Neubourg Way (north of the B3092) immediately to the south of the town centre with a traffic flow of some 17,500 two-way vehicles AADT.

Personal Injury Accidents

8.4.48 Personal Injury Accident (PIA) data has been obtained from Dorset County Council to cover the period between 01 October 2011 to 30 September 2016. The study area covers the B3081/ B3092 corridor through Gillingham, as well as the A30/B350/B3081 'Ivy Cross Roundabout' in Shaftesbury and the A30/B3092 junction in East Stour. Additional PIA data has been obtained from Wiltshire County Council and Somerset County Council for the northern junctions with the A303. A full analysis of the recorded collisions is provided in Appendix D of the Transport Assessment.

8.4.49 The PIA data records that a total of 55 injury accidents have occurred within the study area over the last five-year period. The majority (32) of all recorded injury accidents involved vehicles and resulted in slight injuries, with 5 resulting in serious injuries and 1 fatal injury. Some 17 accidents were recorded involving pedestrians and cyclists, 13 of which resulting in slight injury, and 4 resulting in serious injury.

8.4.50 Overall, the number, cause, and location of accidents do not suggest a particular highway safety problem on the local highway network.

8.5 Future Baseline

2021 Opening Year

8.5.1 In order to calculate robust 2021 opening year traffic flows, the following parameters have been taken into account:

Committed Development

8.5.2 The following committed developments have been taken into account in the transport assessment to derive design year traffic flows.

8.5.3 For the purpose of the analysis, the development commitments are those commitments that benefit from a planning permission but were not built/occupied at the time of the baseline traffic surveys.

8.5.4 A summary of the committed developments which have been taken into account are summarised in Table 8.8 below.

Table 8.7 - Committed Developments

Planning Application Reference	Site	Description
2/2006/0026	Kingsmead Business Park	Commercial garage / dealership with a GFA of 973sqm allowed on appeal reference: APP/N1215/A/06/2010473/NWF
2/2010/0803/PLNG	Kingsmead Business Park	Erection of two-story building (B1/B2/B8) with a GFA of 1,314sqm
2/2006/0026	Kingsmead Business Park	Two no. B1/B2/B8 units with a GFA of 552sqm
2/2016/0149/OUT	Land at Bay	50 new residential dwellings
2/2002/0415 and 2/2002/0880	Land East of Shaftesbury	The construction of 811 dwellings at land adjacent to Greenacres, Salisbury Road – 97 units remaining to be occupied at the time of the traffic surveys (parcels 6 and 7)
2/2015/0598/OUT	Land West of Littledown, Shaftesbury	170 new dwellings, public open space and play areas
2/2104/1350/FUL	Land adjacent to Wincombe Business Park	191 new dwellings and public open space
14/06780/OUT (Wiltshire Council)	Land at the Hill Brush Co Ltd Mere	Demolition of existing factory and dwellings known as Maltot and development of 134 dwellings



8.5.5 The traffic generated from each committed development has been assigned to the local highway network in accordance with the agreed analysis in the supporting highways and transport work which has been submitted as part of the planning application for each site and has previously been agreed with DCC. Beyond the coverage of the defined distribution contained within each transport assessment, vehicle movements have been assigned to relevant zones with the Gillingham S-Paramics model using the base model distributions.

8.5.6 In order to undertake a robust assessment, it has been assumed all committed development will be completed by 2021.

8.5.7 In agreement with DCC, there are no committed transport infrastructure improvements that are associated with a consented development or which have secured 100% public funding for its delivery which need to be taken account of in the assessment.

Background Traffic Growth

8.5.8 Appropriate background growth to 2021 derived from the National Transport Model (NTM) with adjustments made for local factors derived from the TEMPRO database has been applied to 2016 traffic flows (the year the majority of the traffic surveys were undertaken). The forecast growth in households and jobs within Gillingham and Shaftesbury assumed within TEMPRO has been adjusted to avoid double-counting the traffic generated by committed development.

2031 Sensitivity Test

8.5.9 In order to calculate robust 2031 traffic flows at the end of the North Dorset Local Plan, the following parameters have been taken into account:

Committed Development

8.5.10 The forecast traffic generated by the committed developments set out in Table 8.8 above have been taken into account to derive total 2031 baseline traffic flows.

Soft Commitments

8.5.11 In order to undertake an appropriate sensitivity test it is also proposed to include 'soft commitments', i.e. sites which do not have a planning consent but which have been identified as suitable for development within the North Dorset Local Plan and there is a reasonable expectation they will come forward during the proposed assessment period.

8.5.12 A summary of the committed developments (soft) that have been taken into account in the transport assessment to derive traffic flows in the appropriate design years is presented in Table 8.9. The adopted Local Plan does not provide precise details on the likely quantum and specific land uses for each site and therefore the information set out in Table 8.9 is on the basis of the available information provided by NDDC at this stage.

Table 8.9: North Dorset Local Plan – Allocated Sites within Gillingham

Site	Description
Extension to Brickfields Business Park (included within Gillingham SSA)	B1 – 30%: 7,000sqm; B2 – 47%: 10,967sqm; and B8 – 23%: 5,367sqm

Mixed-use regeneration in the Station Road area	4.3 hectares of retail, employment and residential uses: B1 – 2,795sqm; and B2 – 2,795sqm; A1 Retail – 5,590sqm; 80 Dwellings
Kingsmead Business Park	A range of employment uses: B2 – 4,200sqm; and B8 – 9,300sqm
Neal's Yard Remedies, Peacemarth	Expansion of site for employment uses: B2 – 1,400sqm; and B8 – 3,100sqm

8.5.13 The B1/B2/B8 vehicular trip rates agreed as part of the assessment of the extended Brickfields Business Park in the promotion of the site through the Local Plan have been re-used for the proposed employment uses and is set out in more detail in Appendix F of the Transport Assessment.

Background Traffic Growth

8.5.14 Appropriate background growth to 2031 derived from the National Transport Model (NTM) with adjustments made for local factors derived from the TEMPRO database has been applied to 2016 traffic flows (the year the majority of the traffic surveys were undertaken). The forecast growth in households and jobs within Gillingham and Shaftesbury assumed within TEMPRO has been adjusted to avoid double-counting the traffic generated by committed and Local Plan development.

8.5.15 On the basis of the above methodology, the 2021 and 2031 future baseline annual average daily traffic flows on the local highway network are summarised in Table 8.10.

Table 8.10 - Local Highway Network – 2021 and 2031 Forecast Year Two-Way Traffic Flows (Total Vehicles)

Site ID	Location	2021 Two-Way AADT (Vehicles)	2031 Two-Way AADT (Vehicles)
		2021 Base	2031 Base
1	B3081 South of Access	13,265	13,825
2	B3081 North of Access	13,273	13,832
3	B3092 South of Principal Access (South of Cole St Lane)	5,908	6,163
4	B3092 North of Brickyard Lane	7,583	7,911
5	B3081 South of B3092	14,692	15,283
6	B3081 North of B3092	19,086	19,878
7	B3092 between Wyke Rd and Station Rd	15,755	16,287
8	B3081 Wyke Rd	10,291	10,752



9	B3092 North of Wyke Rd	12,764	13,325
10	Newbury (High Street)	5,429	5,737
11	B3092 south of Brickfields Business Park	5,905	6,160
14	A350 Grosvenor Road	15,140	16,246
15	A350 Little Content Lane	21,409	23,331
16	B3081 Bleke Street	14,730	16,724
17	B3092 Back Street	4,409	5,492
18	B3092 Scotchey Hill	6,169	7,026
19	A30 (West)	5,131	5,677

Peak Spreading

8.5.16 It has been agreed with DCC that making an allowance for the effect of peak spreading on the network is appropriate in order to present a more realistic picture of the future traffic conditions that could be expected on the network in the peak hour periods. Peak spreading has only been applied to a proportion of all traffic within the network and excludes the trips that are to/from the schools across the morning peak hour within the study area.

8.5.17 The effect of peak spreading has been allowed for in both the 2021 and 2031, reference case and 'with development' scenarios but does not affect the forecast two-way 24-hour Annual Average Daily Traffic (AADT), 18-hour Annual Average Weekday Traffic (AAWT) and AM and PM peak hour flows as these have been estimated using the three-hour AM peak period flows.

8.6 Design Mitigation

Access Strategy Overview

8.6.1 Safe and suitable vehicular access to the site is proposed in the following locations:

- Central Parcel (i.e. Ham Farm and Newhouse Farm) – comprising a total of 960 dwellings, local centre, and 1-form entry extension to St Mary the Virgin C of E VA Primary School;
 - Via signalised junction on B3081 Shaftesbury Road to the south of the existing Park Farm Roundabout;
 - Extension of Woodpecker Meadow into the site to serve approximately 100 dwellings; and
 - Via Principal Street and realigned B3092 New Road in vicinity of junction with Cole Street Lane.

- Park Farm (east of the B3081 Shaftesbury Road) – comprising a total of 633 dwellings and 2-form entry primary school:
 - Extension of the eastern arm of the existing Park Farm roundabout (currently serving Kingsmead Business Park);
 - Eastern end of Cerne Avenue / Cale Way junction (serving a limited number of dwellings); and
 - Eastern end of Trent Square / Fern Brook Lane junction (serving a limited number of dwellings);
- Lodden Lakes – comprising a total of 207 dwellings:
 - Priority junction to the south of Addison Close (via approved access as part of the consented 90 dwelling scheme); and
 - New access from the B3092 New Road to the south of Lodden Lakes (simple priority junction in advance of the extension to Brickfields Business Park coming forward).

8.6.2 A road link between the B3081 Shaftesbury Road and the B3092 New Road – known as the 'Principal Street' – will be provided through the central parcel. This will provide the main means of vehicular access to the central parcel, and will form an integral part of the urban design objectives rather than functioning simply as a road. It will also provide an alternative route for traffic accessing Brickfields Business Park and other existing developments off New Road (particularly for journeys to the south) and therefore provides resilience to the highway network in the southern part of the town.

8.6.3 In addition to the pedestrian and cycle provision at the site access junctions, the following pedestrian and cycle connections will be provided:

- Pedestrian / cycle access via Pheasant Way via existing Footpath N64/33;
- Pedestrian / cycle access from the central parcel to the informal footpath along Lodden Valley;
- Pedestrian / cycle access from the Lodden Lake parcel to the informal footpath along Lodden Valley; and
- Series of public footpath links to the south linking to Cole Street Lane.

Construction Phase

8.6.4 Appropriate management of demolition and construction traffic will be undertaken, as follows:

- The use of appropriate and approved routes for larger construction vehicles, deliveries and for staff including approved routing plans;
- The management of working hours and delivery times to minimise disturbance caused by traffic (e.g. avoiding deliveries during the peak hours);
- Covering loads coming to and leaving the development;
- Provision of wheel washing / vehicle cleaning facilities on site; and



- Inspection of local highway network and cleaning as necessary.

- 8.6.5 The above measures will be included within a Construction and Environmental Management Plan (CEMP), which will be agreed with the relevant bodies (including NDDC and DCC) to deliver the required mitigation measures during construction as identified in the ES and the requirements of planning conditions and/or Section 106 legal agreements. Its purpose is to reduce the risk of adverse effect of construction on sensitive environmental resources and to minimise disturbance to local residents.
- 8.6.6 The CEMP will incorporate Construction Traffic Management and will describe the checking, monitoring and audit processes that will be implemented to ensure that the construction activities will be undertaken in accordance with these requirements, together with measures to ensure that appropriate corrective actions or mitigation measures are taken.
- 8.6.7 The CEMP will form part of the overall Project Management and as such, the activities described will be integrated with other Quality, Sustainability and Health and Safety management processes.

8.7 Likely Significant Environmental Effects of the Scheme

Construction Phase Effects

- 8.7.1 A development of this scale will be built out over a number of years with construction activity varying depending upon the intensity of construction and the differing buildings under construction. On the basis of an indicative phasing programme, it is estimated there would be an average buildout rate of around 135 dwellings per year with a peak of 200 dwellings constructed per annum (in 2024).
- 8.7.2 This enables an estimate of the associated construction traffic details using data observed from an existing residential construction site at Cambourne, South Cambridgeshire. Survey data showed that 320 light vehicle movements and 118 Heavy Goods Vehicle (HGV) movements occurred at the construction site during which time the build rate was 260 dwellings per annum.
- 8.7.3 In order to calculate the expected traffic generation of the proposed development during the peak construction period, the survey data at Cambourne has been factored on a pro-rata basis. Tables 8.11 and 8.12 summarises the daily and hourly construction traffic generation for the proposed development on the basis of 200 dwellings per annum.

Table 8.11 - Daily Construction Traffic Flows (200 Dwellings Per Annum)

	Arrival	Departure	Two-Way
No. of Light Vehicle Movements	123	123	246
No. of Heavy Goods Vehicles	45	45	91
Total Vehicle Movements	168	168	337

Table 8.12 - Gillingham Southern Extension - Hourly Construction Traffic Flows (200 Dwellings Per Annum)

	Arrival	Departure	Two-Way
No. of Light Vehicle Movements	12	12	25
No. of Heavy Goods Vehicles	5	5	9
Total Vehicle Movements	17	17	34

Note: Assume a Typical Working Day of 0800 - 1800

- 8.7.4 It is anticipated that during the peak period of construction, traffic would access the site as follows:

- 33% of construction traffic will enter the Park Farm parcel via an extension of the existing eastern arm of the B3081 Shaftesbury Road / Fern Brook Lane roundabout;
- 33% of construction traffic will enter the Ham Farm parcel via a temporary construction access to be provided from the B3081 Shaftesbury Road in advance of delivery of the full junction with the Principal Street; and
- 33% of construction traffic will enter the Lodden Lakes parcel via a temporary construction access from the B3092 in advance of the realignment of the bends and delivery of the full junction to serve the Lodden Lakes site.

- 8.7.5 In terms of light and heavy vehicle movements, these have been distributed across the adjoining road network using a gravity model (excluding Gillingham as a source). It is considered most light vehicle movements would take place during the early morning and evening assuming a typical working day would operate between 08:00 and 18:00.

- 8.7.6 It is expected that the peak construction period will coincide with the occupation of 450 dwellings at the site (i.e. those constructed in the period prior to 2024). The methodology for the trip generation and distribution of the residential traffic is set out in Section 8.8. The expected construction traffic generation has therefore been assessed alongside the traffic generation of 450 dwellings. For the purpose of this assessment, it has been assumed the peak construction period will occur after the delivery of the on-line highway improvements (see Section 8.8).

- 8.7.7 Against this background, Table 8.13 summarises the forecast traffic flows on the road links included within the study area during the peak construction period, taking account of the traffic generated by the initial 450 dwellings.

Table 8.13 - Local Highway Network - '2024 Base' and '2024 with 450 Dwellings and Construction Traffic' Two-Way Traffic Flows (Vehicles)

Location	2024 Two-way AADT (Vehicles)
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	2024 Base	2024 'With Construction'	Change	% Change
B3081 South of Access	13,558	14,103	767	5.7%
B3081 North of Access	13,567	14,244	914	6.7%
B3092 South of Principal Access (South of Cole St Lane)	6,046	6,179	217	3.6%
B3092 North of Brickyard Lane	7,765	8,204	549	7.1%
B3081 South of B3092	14,960	15,720	1,243	8.3%
B3081 North of B3092	19,483	20,058	942	4.8%
B3092 between Wyke Rd and Station Rd	16,095	16,255	852	5.3%
B3081 Wyke Rd	10,559	10,718	332	3.1%
B3092 North of Wyke Rd	13,072	13,126	149	1.1%
Newbury (High Street)	5,600	5,777	-224	-4.0%
B3092 south of Brickfields Business Park	6,045	6,184	221	3.7%
A350 Grosvenor Road	3,440	3,491	51	1.5%
A350 Little Content Lane	4,863	4,973	110	2.2%
B3081 Bleke Street	3,343	3,504	161	4.6%
B3092 Back Street	1,001	1,050	49	4.7%
B3092 Scotchey Hill	814	839	25	3.0%
A30 (West)	1,114	1,138	24	2.1%

8.7.8 The IEA Guidelines for the Environmental Assessment of Road Traffic sets out that “highway links should be assessed when traffic flows have increased by more than 30% or other sensitive areas are affected by traffic increases of at least 10%.” Table 8.13 demonstrates that the proposed construction traffic will not result in a greater than 30% impact on any of the links identified within the study area. During the demolition and construction period the effect of the proposed development would have a **negligible** effect in terms of:

- Severance;
- Pedestrian Delay;

- Fear/Intimidation; and
- Accidents and Safety.

8.7.9 In terms of driver delay the demolition and construction activity will occur during the period when dwellings are being occupied. The residents of the occupied dwellings will generate a travel demand and therefore additional traffic movements on the local highway network. There is the potential for a **negligible** effect in terms of driver delay (see Section 8.8) in comparison to the 2024 baseline (taking account of the the proposed on-line highway improvements).

8.7.10 The construction of the development proposal is not expected to involve the transfer of hazardous loads to or from the application site. It will therefore have a **negligible** effect.

8.7.11 In terms of Dirt transferred onto roads, without mitigation there is the potential for a minor **negative** effect caused by construction HGV movements increasing the amount of dirt picked up by the wheels of vehicles and transferred onto the local highway network.

Assessment of Construction Traffic on Sensitive Receptors

8.7.12 An assessment of the likely construction traffic flow increases near to sensitive receptors has been undertaken. The sensitive receptors identified are set out in Table 8.3 along with the distance to the closest link in the S-Paramics model. The assessment has been undertaken comparing the 2024 with construction traffic flows against the 2024 baseline.

8.7.13 It is identified in Table 8.13; the combined construction and development traffic will not result in a greater than 10% increase on any of the links assessed. Therefore, the impact of the construction traffic on the sensitive receptors will be **negligible**.

8.8 Operational Phase Effects

Traffic Flows

8.8.1 The expected vehicular trip generation of the development proposal during the weekday highway network peak hours once fully built out is set out in detail in Section 9 of the TA and is summarised in Tables 8.14 and 8.15 below. The trip rates are agreed with DCC and HE.

Table 8.14 – External Traffic Generation Proposed Development - AM Peak Hour (08:00 - 09:00)

Land Use	All Vehicles		
	Arrivals	Departures	Total
Residential (1,800 dwellings)	212	621	833
Primary School (3 FE) – Staff	25	-	25
Primary School (3 FE) – Escort Education	112	84	196
Local Convenience / Retail	-	-	-
Health Centre	9	5	15



Community Hall	-	-	-
Pub/Restaurant	-	-	-
Total	358	710	1,068

Note: A blank cell means internal trips only

Table 8.15 - External Traffic Generation Proposed Development - PM Peak Hour (17:00 - 18:00)

Land Use	All Vehicles		
	Arrivals	Departures	Total
Residential (1,800 dwellings)	542	357	898
Primary School (3 FE) – Staff	-	12	12
Primary School (3 FE) – Escort Education	-	-	-
Local Convenience / Retail	-	-	-
Health Centre	4	6	9
Community Hall	-	-	-
Pub/Restaurant	13	9	23
Total	559	384	943

Note: A blank cell means internal trips only

- 8.8.2 The analysis indicates that the proposed development is likely to generate some 1,068 two-way external vehicle trips in the weekday morning peak hour and 943 two-way vehicle movements in the evening peak.
- 8.8.3 The TA sets out how the development traffic is distributed on to the local highway network using the S-Paramics model.
- 8.8.4 Table 8.16 summarises the changes in traffic flow on local road links within the study area as a result of the completed development.

Table 8.16 - Local Highway Network - '2021 Base' and '2021 with Development (No Mitigation)' Two-Way Traffic Flows (Vehicles)

Location	2021 Two-way AADT (Vehicles)
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	2021 Base	2021 'With Development (No Mitigation)'	Change	% Change
B3081 South of Access	13,265	14,238	973	7.3%
B3081 North of Access	13,273	15,327	2,054	15.5%
B3092 South of Principal Access (South of Cole St Lane)	5,908	6,637	728	12.3%
B3092 North of Brickyard Lane	7,583	9,099	1,516	20.0%
B3081 South of B3092	14,692	17,737	3,044	20.7%
B3081 North of B3092	19,086	21,562	2,476	13.0%
B3092 between Wyke Rd and Station Rd	15,755	16,767	1,012	6.4%
B3081 Wyke Rd	10,291	11,179	888	8.6%
B3092 North of Wyke Rd	12,764	13,315	551	4.3%
Newbury (High Street)	5,429	6,248	820	15.1%
B3092 south of Brickfields Business Park	5,905	7,038	1,132	19.2%
Principal Street (East) - Access Only	n/a	3,762	n/a	n/a
A350 Grosvenor Road	15,140	16,174	1,033	6.4%
A350 Little Content Lane	21,409	23,309	1,900	8.2%
B3081 Bleke Street	14,730	17,663	2,933	16.6%
B3092 Back Street	4,409	5,257	848	16.1%
B3092 Scotchey Hill	6,169	6,611	442	6.7%
A30 (West)	5,131	5,546	415	7.5%

Note: AADT's estimated using AM peak period flows derived from the S-Paramics Model Factored by available local ATC data.

- 8.8.5 The IEA Guidelines for Environmental Assessment of Road Traffic, sets out that "highway links should be assessed when traffic flows have increased by more than 30% or other sensitive areas are affected by traffic increases of at least 10%."



- 8.8.6 On the basis of the traffic flows summarised in Table 8.16, the proposed development will not result in a greater than 30% increase in traffic flows on any of the links within the study area.
- 8.8.7 The following links within the vicinity of the sensitive receptors will experience a 10% to 30% increase on traffic flows as a result of the proposed development and are located identified in Table 8.3.
- B3081 North of Access – 15.5%;
 - B3081 South of B3092 – 20.7%;
 - Newbury (High Street) – 19.2%; and
 - B3092 Back Street – 16.1%.
- 8.8.8 The following sensitive receptors that are within 200m from the closest link and experience an increase exceeding 10% are as follows:
- Topsie Rabbit Kindergarten – 20.7%;
 - Fly Start Pre-School – 20.7%;
 - The Barn Surgery – 19.2%;
 - ADP Dental Co – 19.2%;
 - Gillingham Library – 20.7%;
 - Kings Court Scheduled Monument – 15.5%;
 - East Stour Village Hall – 16.1%.
- 8.8.9 The traffic impact on the links identified above has been assessed against the environment impacts identified in Section 8.3.
- Severance**
- 8.8.10 The IEA guidelines define severance as “the perceived division that can occur within a community when it becomes separated by a major traffic artery.” The IEA Guidelines suggest that a 30%, 60% and 90% increase in traffic flow will respectively have a ‘slight’, ‘moderate’ and substantial change in severance, although allowance needs to be made for the presence of crossing facilities.
- 8.8.11 As identified in Table 8.15, no links are expected to experience a greater than 30% increase in traffic flows as a result of the proposed development. On this basis, the proposed development will have a **negligible** impact upon severance.
- 8.8.12 The following links are identified to be located within the vicinity of a Sensitive Receptor and are subject to a 10% to 30% increase in traffic as a result of the proposed development.
- B3081 North of Access – 15.5%;
 - B3081 South of B3092 – 20.7%; and
 - Newbury (High Street) – 19.2%.
- 8.8.13 In accordance, with the IEA Guidelines, changes in traffic flows of less than 30% will result in a negligible impact upon Severance, therefore the effect of the development traffic on these links will result in a **negligible** impact.

Driver Delay

- 8.8.14 The results of the network wide statistics for the weekday morning and evening peak periods in the ‘2021 Do Minimum’ and 2021 plus Development’ are presented in Tables 8.17 and 8.18.

Table 8.17 - Driver Delay (Seconds AM Peak (0800 - 0900) - '2021 Base' and '2021 Plus Development (no Mitigation)'

Route	2021 Base	2021 Plus Development (no Mitigation)
B3081/B3092 Corridor Northbound		
Park Farm Roundabout to B3092	447	813
B3092 to Bay Road	153	159
<i>Total B3081/B3092 Corridor – Park Farm Rdbt to Bay Road (NB)</i>	<i>600</i>	<i>972</i>
B3081/B3092 Corridor Southbound		
Bay Road to B3092	215	241
B3092 to Park Farm Roundabout	95	99
<i>Total B3081/B3092 Corridor – Bay Road to Park Farm Rdbt (SB)</i>	<i>310</i>	<i>340</i>
B3092 New Road – Cole Street Lane to B3081 (NB)	207	510
B3092 New Road – B3081 to Cole Street Lane (SB)	95	101
Brickfield Business Park to Park Farm Roundabout (SB) via B3081	257	465
Park Farm Roundabout to Brickfields Business Park (NB) via B3081	506	1,015

**Table 8.18 - Driver Delay (Seconds) PM Peak (1700 - 1800) - '2021 Base' and '2021 plus Development' (no Mitigation)**

Route	2021 Base	2021 Plus Development (no Mitigation)
B3081/B3092 Corridor Northbound		
Park Farm Roundabout to B3092	365	690
B3092 to Bay Road	163	164
<i>Total B3081/B3092 Corridor – Park Farm Rdbt to Bay Road (NB)</i>	<i>528</i>	<i>854</i>
B3081/B3092 Corridor Southbound		
Bay Road to B3092	190	292
B3092 to Park Farm Roundabout	91	101
<i>Total B3081/B3092 Corridor – Bay Road to Park Farm Rdbt (SB)</i>	<i>281</i>	<i>393</i>
B3092 New Road – Cole Street Lane to B3081 (NB)	147	216
B3092 New Road – B3081 to Cole Street Lane (SB)	93	100
Brickfield Business Park to Park Farm Roundabout (SB) via B3081	196	282
Park Farm Roundabout to Brickfields Business Park (NB) via B3081	425	884

8.8.15 It can be seen that with the addition of the development traffic, total travel time will increase on each of the following links in the morning and evening peak hour periods:

- B3081 Shaftesbury Road / Fern Brook Lane / Kingsmead Business Park Access Junction (Park Farm Roundabout) to B3081 Shaftesbury Road / B3092 New Road Junction (northbound and southbound);
- B3081 Shaftesbury Road / B3092 New Road Junction to B3092 Le Neubourg Way / Bay Road Roundabout (northbound and southbound);

- B3092 New Road corridor between Cole Street Lane and B3081 Shaftesbury Road (northbound and southbound); and
- B3092 New Road / Brickfield Business Park Junction to B3081 Shaftesbury Road / Fern Brook Lane / Kingsmead Business Park Access Junction (Park Farm Roundabout) (eastbound and westbound).

8.8.16 Of the junctions within the study area outside of the scope of the S-Paramics model, the A30 / B3092 East Stour Crossroads is forecast to operate within capacity in 2021 in the weekday peak hour periods with the additional development traffic with negligible queuing and delay. The additional development generated traffic at the A30 / A350 / B3081 'Ivy Cross Roundabout' will result in additional queuing and delay at the junction.

8.8.17 The effect of the proposed development traffic on the operation of the local highway network could therefore result in a **moderate to major** adverse impact upon driver delay without mitigation.

Pedestrian Delay

8.8.18 Changes in the volume, composition or speed of traffic may affect the ability of people to cross roads.

8.8.19 The proposed development will bring about increases in the number of vehicle and pedestrian movements. In general, increases in traffic levels are likely to lead to greater increases in delay to pedestrians seeking to cross roads

8.8.20 The IEA 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. Currently there are at-grade controlled crossings provided at the following junctions:

- B3081 Shaftesbury Road / Kingfisher Avenue;
- B3081 Shaftesbury Road / Rookery Close / Hine Close;
- B3081 Shaftesbury Road / King John Road;
- B3081 Shaftesbury Road / New Road; and
- Station Road / B3081 Le Neubourg Way.

8.8.21 Crossing at these locations is therefore dependent upon the timing of the signals, which subsequently translates to pedestrian delay. It is understood that there is an 'all red' pedestrian stage at each junction which is activated each cycle, subject to demand, so the delay to pedestrians using the junction is unlikely to increase regardless of the forecast increase in traffic flows. The overall of the effect is **negligible**.

Pedestrian Amenity

8.8.22 The 'relative pleasantness' of a pedestrian journey is affected by traffic flow, traffic composition and pavement width/separation from traffic. A tentative threshold for changes in pedestrian amenity is where traffic flows are halved or doubled.

8.8.23 In terms of the IEA thresholds the proposed development traffic will not result in traffic flows either halving or doubling on any of the links assessed. The proposed development is therefore expected to have a **negligible** effect on pedestrian amenity.



Fear and Intimidation

- 8.8.24 A further effect that traffic may have on pedestrians is fear and intimidation. The effect is dependent on the volume of traffic, its Heavy Goods Vehicle (HGV) composition and its proximity to people and/or lack of protection caused by factors such as narrow pavement widths.
- 8.8.25 The IEA Guidelines suggest thresholds based on 18-hour daily flow / hour, 18-hour HGV flow and vehicle speeds, as shown in Table 8.1.
- 8.8.26 The results for the assessed links as a result of the proposed development are summarised in Table 8.19.

Table 8.19 - Fear and Intimidation - '2021 with Development (No Mitigation)'

Location	2021 Two-way AADT (Vehicles)		Degree of Hazard	
	2021 Base	2021 'With Development (No Mitigation)'	2021 Base	2021 With Development
B3081 South of Access	792	850	Moderate	Moderate
B3081 North of Access	792	915	Moderate	Moderate
B3092 South of Principal Access (South of Cole St Lane)	353	396	n/a	n/a
B3092 North of Brickyard Lane	452	543	n/a	n/a
B3081 South of B3092	877	1,058	Moderate	Moderate
B3081 North of B3092	1,139	1,287	Moderate	Great
B3092 between Wyke Rd and Station Rd	940	1,001	Moderate	Moderate
B3081 Wyke Rd	614	667	Moderate	Moderate
B3092 North of Wyke Rd	762	795	Moderate	Moderate
Newbury (High Street)	324	373	n/a	n/a
B3092 south of Brickfields Business Park	352	420	n/a	n/a
Principal Street (West)	n/a	n/a	n/a	n/a
Principal Street (East) – Access Only	n/a	225	n/a	n/a

A350 Grosvenor Road	903	965	Moderate	Moderate
A350 Little Content Lane	1,278	1,391	Great	Great
B3081 Bleke Street	879	1,054	Moderate	Moderate
B3092 Back Street	263	314	n/a	n/a
B3092 Scotchey Hill	368	395	n/a	n/a
A30 (West)	306	331	n/a	n/a

Note: n/a = less than the identified vehicles per hour threshold set out in the IEA guidelines
 Moderate = 600-1200 vehicles per hour (average traffic flow over 18-hour hour day)
 Great = 1200-1800 vehicles per hour (average traffic flow over 18-hour hour day)
 Extreme = 1800+ vehicles per hour (average traffic flow over 18-hour hour day)

- 8.8.27 Table 8.19 demonstrates the degree of hazard on the B3081 to the north of the junction with the B3092 would increase from 'Moderate' to 'Great' as a result of the additional development traffic. The Proposed Development is therefore predicted to have a **moderate adverse** effect in terms of fear and intimidation on this link.
- 8.8.28 At all other locations, the degree of hazard for pedestrians within the study area does not increase as a result of the proposed development traffic, including the links identified within the vicinity of a sensitive receptor or is below the threshold identified by the IEA Guidelines where pedestrians will experience any fear and intimidation. The proposed development will not result in increases to the degree of hazard for fear and intimidation on the majority of the assessed links.
- 8.8.29 Overall, the Proposed Development is therefore predicted to have a **negligible** effect overall in terms of fear and intimidation on the assessed links.

Accidents and Safety

- 8.8.30 A summary of the personal injury accident record for the local highway network is included in Section 8.4. Overall, the number and cause of accidents does not suggest a specific issue at any particular location (e.g. there is not a pattern that suggests a problem with a particular turning manoeuvre) and is not unusual for a generally busy urban highway network such as that in and around Gillingham.
- 8.8.31 Given the volume of additional traffic that the development proposal will add to a relatively busy urban network, there is the potential for a **minor adverse** effect in terms of highway safety without any form of mitigation.

Hazardous Loads

- 8.8.32 There are not predicted to be hazardous loads associated with the proposed development and therefore the effect of the proposed development will be **negligible** on all links identified within the study area including those within the vicinity of sensitive receptors.

Dirt on the Highway

- 8.8.33 The internal street network of the development proposal will have a formal surface and the vast majority of traffic generated by the development proposal will be cars. On this basis, the development proposal will have a **negligible** effect in terms of dirt. An assessment of dust is provided in the Air Quality chapter.



8.9 Additional Mitigation, Compensation and Enhancement Measures

Operational Phase

- 8.9.1 To mitigate the transport related effects of the completed development, a comprehensive sustainable transport strategy is proposed as set out in Section 8 of the Transport Assessment. This strategy complies with the aims of national, regional and local transport policy guidance to deliver sustainable new development, whilst providing considerable assistance in resolving existing transport issues in the area.
- 8.9.2 The overall objective of the sustainable transport strategy is to maximise the opportunities for sustainable transport modes to reduce the need for major transport infrastructure and to ensure that the residual cumulative impacts of development are not severe.
- 8.9.3 This is in accordance with Policy 21: Gillingham Strategic Site Allocation of the adopted North Dorset Local Plan 2011-2031: Part 1, and will be achieved through the following sub objectives:
- Locating land uses where the need to travel will be minimised and the use of sustainable transport modes can be maximised;
 - Providing a mix of uses in order to provide opportunities to undertake day-to-day activities on site;
 - Where practical, key facilities such as primary schools and local shops being located within walking distance of properties;
 - Locating and designing the development where practical to:
 - Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
 - Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;
 - Consider the needs of people with disabilities by all modes of transport;
 - Incorporate facilities for charging plug-in and other ultra-low emission vehicles;
 - Accommodate the efficient delivery of goods and supplies;
 - Improving integration between the site and the remainder of Gillingham and key destinations through improved linkages and connectivity to enable future residents and visitors to the site to travel to everyday destinations by a choice of travel modes, as follows:
 - Walking and cycling improvements on the links into Gillingham town centre and other key local destinations;
 - Bus service improvements to serve the site, Gillingham, and key off-site destinations; and
 - Improved connections to Gillingham rail station (pedestrian, cycle and bus).
 - Providing a benefit to existing residents / employees / visitors to Gillingham through the transport improvements being brought forward by the development;
 - Opportunities for the effective promotion and delivery of sustainable transport initiatives e.g. walking, cycling, public transport and tele-commuting to thereby reduce the demand for travel by less sustainable modes (i.e. modal shift away from the car); and
 - Highway safety improvements to the local highway network.
- 8.9.4 It is recognised that despite the opportunities provided for sustainable travel that some future residents / employees will still choose or need to use their car for journeys and thus it is important to provide cost effective capacity improvements within the transport network that cost effectively limit the significant impacts of the development.
- 8.9.5 The provision of a new 2-form entry primary school, a 1-form entry extension to the existing St Mary the Virgin C of E VA Primary School, retail / local convenience, health centre, community hall, and leisure / sport uses and open space in addition to the proposed residential development provides the opportunity for many journeys to be contained within the site without impacting on the external local transport network. This directly accords with the objectives listed earlier in this section and the first part of paragraph 38 of the NPPF which states that for larger scale residential developments in particular, a mix of uses should be promoted in order to provide opportunities to undertake day-to-day activities including work on site.
- 8.9.6 Indeed, the provision of this mix of uses ensures walkable neighbourhoods with these facilities being within an 800m “comfortable” walk distance of many residential areas and within a 2km “reasonable” walking distance of all residential areas. This directly accords with the objectives and the second part of paragraph 38 of the NPPF which states that where practical, particularly within large-scale developments, key facilities such as primary schools and local shops should be located within walking distance of most properties.
- 8.9.7 The site and Gillingham combined provide a wide range of leisure, retail, employment and education facilities for existing and future residents. The site is within a 2km walking catchment of Gillingham town centre and rail station; Kingsmead and Brickfield Business parks; and Gillingham primary and secondary schools. There is therefore the opportunity for many future residents to walk to these destinations although it is acknowledged that not all residents will be able to walk between the site and the town centre. All of the Gillingham built up area is within a reasonable cycling distance of the site meaning that there is the opportunity for many future residents to make these journeys on bike.
- ### Off-Site Walking and Cycling Improvements
- 8.9.8 The following improvements have been identified to improve the pedestrian and cycle linkages between the proposed development and key destinations within Gillingham. Detail of the improvements is included within Section 8 of the Transport Assessment. The key improvements for each route are summarised below:
- Route 1 – New Road (Addison Close to Shaftesbury Road)
- Dropped kerbs and tactile paving at the minor road junction with New Road;
 - The provision of a dropped kerb crossing with tactile paving at minor road junction with Prospect Close;
 - A dropped kerb crossing with tactile paving, west of the site access on Addison Close;



- A dropped kerb crossing on New Road, north of Addison Close;
- A dropped kerb crossing on New Road to the north of Brickfield Lane; and
- Dropped kerbs and tactile paving at the minor road junction with Brickfield Lane;

Route 2 – Shaftesbury Road from junction with Rookery Close (including link to Trent Square/Fern brook Lane) to Newbury (High Street)

- Replace existing full height kerb between the shared surface on Trent Square/Fern Brook Lane and Rookery Close with dropped kerbs to provide continuous level pedestrian route;
- The addition of dropped kerb crossing and tactile paving to provide a footway return to Rookery Close;
- Provision of dropped kerb crossing with tactile paving on Rookery Close;
- Provision of tactile paving at minor road junction with Bridge Close; and
- Existing vegetation at back of footway on western side of carriageway immediately north of the junction with Kingscourt Road to be cut back within highway limits.

Route 3 – Station Road from Gillingham Rail Station to High Street

- The provision of a dropped kerb crossing with tactile paving south of B3081 Le Neubourg Way / Station Road junction.

Route 4 – Newbury (High street) and Hardings Lane

- Provision of tactile paving at minor road junction with Victoria Road;
- Provision of tactile paving at access to Barn Surgery; and
- Provision of tactile paving on south-western side of existing raised speed table at Newbury (High Street).

- 8.9.9 The proposed development will also bring forward a wayfinding strategy to advise residents and visitors of the site the quickest route to the key destinations within Gillingham.
- 8.9.10 In addition to the proposed improvements to the core pedestrian/cycle routes between the development site and key local destinations set out above, the development will also assist in bringing forward, through financial contribution, improvements to pedestrian/cycle provision within Gillingham, including between the site and Gillingham town centre and other local facilities; including:
- Improvements to pedestrian access to Gillingham rail station via the off-road route on Brickyard Lane to the south of the railway line;
 - Improvements to the footpath links along the Lodden Valley between the site boundary and Shaftesbury Road; and
 - Improvements to Footpath No.64/47 and 64/48 to the west of Gillingham rail station, including the pedestrian bridge over River Stour.

Public Transport Strategy

- 8.9.11 The public transport strategy has been the subject of discussion with DCC and the agreed strategy is set out below:

Bus

- Bus stop infrastructure improvements at the existing bus stops within a reasonable walk distance of residential properties along Shaftesbury Road and New Road, as well as additional key bus stops within Gillingham town centre and at the rail station;
- Phased increases in bus service frequency (in conjunction with development completions) on the Gillingham – Shaftesbury corridor to a service level of approximately one every 20 minutes between 07:00 – 19:00 Monday – Saturday and potentially a Sunday service (subject to demand and viability) with a good level of service to Brickfields Business Park;
- Financial contribution towards the enhancements of the community transport schemes and community led transport initiatives within Gillingham;
- Bus season tickets and personalised travel planning (as included in the Framework Travel Plan).

Rail

- A financial contribution towards provision of additional cycle parking at Gillingham rail station.

Framework Travel Plan

- 8.9.12 A separate Framework Travel Plan (FTP) has also been prepared. The primary purpose of the FTP is to identify opportunities for the effective promotion and delivery of sustainable transport initiatives e.g. walking, cycling, public transport and tele-commuting, in connection with both the proposed and existing developments in Gillingham and through this to thereby reduce the demand for travel by less sustainable modes.
- 8.9.13 Individual travel plans are proposed for each of the main land uses on the site and a framework for each travel plan, including the various non-infrastructure or 'soft' Travel Plan measures which put forward a range of non-infrastructure or 'soft' measures aimed at influencing modal choice for residents/employees/visitors of the new development is set out. A suggested timetable for the implementation of these measures has been put forward.
- 8.9.14 A Travel Plan Co-ordinator will be appointed by the developer for each land use prior to first occupation of that particular land use, to oversee the development of the proposed measures and ensure the implementation of the Travel Plan ahead of occupation.
- 8.9.15 It is suggested that a Transport Management Association (TMA) is secured through a planning obligation to manage the individual travel plans of the various land uses across the site and provide the area-wide travel plan elements. As part of the TMA, the developer will fund a Site Wider Travel Plan Co-ordinator (TPC) for the duration of the building programme and two-years thereafter. The TPC for each land use will sit on the TMA steering group.
- 8.9.16 The FTP will include a commitment to update the existing Gillingham and Shaftesbury Walking and Cycling map.



Off-Site Highway Improvements

8.9.17 The proposed off-site highway improvements to deal with the residual traffic impact of the Gillingham SSA development are set out in Section 10 of the Transport Assessment and are summarised below:

- B3081 Shaftesbury Road / B3092 New Road junction improvement scheme;
- B3081 Shaftesbury Road / Newbury (High Street) junction improvement scheme;
- Provision of SCOOT UTC on the B3081 / B3092 corridor; and
- A new road link between the B3081 Shaftesbury Road and B3092 New Road.

8.9.18 A potential improvement scheme has been identified at the A30 / A350 / B3081 'Ivy Cross Roundabout' to mitigate the effects of the additional development traffic at the junction. Alternatively, the proposed development can provide a financial contribution towards the Enmore Link Road (which will reduce the number of vehicles that will need to use the Ivy Cross Roundabout) directly related in scale to the impact of the development, equivalent to the sum of identified improvement scheme at the Ivy Cross Roundabout.

With Development Traffic Flows

Modal Shift

8.9.19 As set out above, the proposed development will deliver a comprehensive package of sustainable transport improvements. The Framework Travel Plan commits the development to the effective promotion and delivery of sustainable transport initiatives e.g. walking, cycling, public transport and tele-commuting, in connection with both the proposed and existing developments in Gillingham and through this to thereby reduce the demand for travel by less sustainable modes. Further, the development will assist DCC in implementing Town Wide Smarter Choices measures, through Personalised Travel Planning across Gillingham, which will assist in achieving a modal shift for existing journeys made within the town.

8.9.20 As such, the assessment with mitigation have been undertaken with the following agreed percentage reductions being applied to design year baseline vehicle movements (for both 2021 and 2031) and development generated vehicle trips to represent this modal shift:

- 10% reduction to development generated traffic to reflect the implementation of the Travel Plan; and
- 7.5% reduction to the design year baseline traffic flows (for traffic originating from dwellings within the town, i.e. excluding through movements) to estimate the likely modal shift of existing journeys as a result of the comprehensive transport strategy delivered by the development.

8.9.21 Against this background, Table 8.20 summarises the '2021 with Development and Mitigation' traffic flows on the local highway network.

Table 8.20 - Two-Way AADT Traffic Flows - '2021 Base' and '2021 with Development with Mitigation'

Location	2021 Two-way AADT (Vehicles)			
	2021 Base	2021 'With Development	Change	% Change

		(With Mitigation)'		
B3081 South of Access	13,265	15,707	2,442	18.4%
B3081 North of Access	13,273	14,638	1,365	10.3%
B3092 South of Principal Access (South of Cole St Lane)	5,908	6,574	666	11.3%
B3092 North of Brickyard Lane	7,583	7,921	338	4.5%
B3081 South of B3092	14,692	15,518	826	5.6%
B3081 North of B3092	19,086	22,412	3,326	17.4%
B3092 between Wyke Rd and Station Rd	15,755	17,605	1,850	11.7%
B3081 Wyke Rd	10,291	11,205	914	8.9%
B3092 North of Wyke Rd	12,764	13,057	293	2.3%
Newbury (High Street)	5,429	6,037	608	11.2%
B3092 south of Brickfields Business Park	5,905	6,832	927	15.7%
Principal Street (East)	n/a	3,635	n/a	n/a
Principal Street (West)	n/a	4,235	n/a	n/a
A350 Grosvenor Road	15,140	16,174	1,033	6.4%
A350 Little Content Lane	21,409	23,309	1,900	8.2%
B3081 Bleke Street	14,730	17,663	2,933	16.6%
B3092 Back Street	4,409	5,257	848	16.1%
B3092 Scotchey Hill	6,169	6,611	442	6.7%
A30 (West)	5,131	5,546	415	7.5%

8.9.22 The IEA Guidelines for Environmental Assessment of Road Traffic, sets out that "highway links should be assessed when traffic flows have increased by more than 30% or other sensitive areas are affected by traffic increases of at least 10%."



- 8.9.23 On the basis of the traffic flows summarised in Table 8.16, the proposed development with mitigation will not result in a greater than 30% increase in traffic flows on any of the links within the study area.
- 8.9.24 The following links within the vicinity of the sensitive receptors identified in Table 8.3 will experience a 10% to 30% increase on traffic flows as a result of the proposed development:
- B3081 North of Access – 10.3%;
 - B3081 North of B3092 – 17.4%;
 - Newbury (High Street) – 11.2%; and
 - B3092 Back Street – 16.1%.
- 8.9.25 The following sensitive receptors that are within 200m from the closest link and experience an increase exceeding 10% are as follows:
- The Barn Surgery – 11.2%;
 - ADP Dental Co – 11.2%;
 - Gillingham Library – 17.4%;
 - Kings Court Scheduled Monument – 10.3%; and
 - East Stour Village Hall – 16.1%.
- 8.9.26 The traffic impact on the links identified above has been assessed against the environment impacts identified in Section 8.3.

8.10 Residual and Cumulative Effects

Construction Phase

- 8.10.1 Construction activities would be controlled as previously set out, with mitigation of the effects of construction traffic secured as part of any future planning consents on the site, so that any residual effects would remain **negligible**.
- 8.10.2 The potential impact in terms of Dirt will be mitigated by the Construction and Environment Management Plan, which will include measures to manage construction traffic activities, cover loads and provide vehicle and highway network cleaning as appropriate. It is therefore considered that there will be a **negligible** residual impact in this regard too.

Operational Phase

- 8.10.3 The 'Operation' stage of the development has been assessed for the '2021 with Development with Mitigation' scenario, which includes the off-site highway improvements proposed to the B3081/B3092 corridor, as well as the new road link between the B3081 Shaftesbury Road and B3092 New Road, and the pedestrian and cycle networks within Gillingham. It also includes the reduction to development generated traffic to reflect the implementation of the Travel Plan and reduction to the design year baseline traffic flows as a result of the comprehensive transport strategy delivered by the development. The traffic flows for this scenario are identified in Table 8.20.

- 8.10.4 A sensitivity test has also been undertaken for the '2031 with Development with Mitigation' scenario, which includes the proposed development set out in the North Dorset Local Plan, including the extension to Brickfields Business Park.

'2021 with Development with Mitigation'

Severance

- 8.10.5 As identified in Table 8.20, no links are expected to experience a greater than 30% increase in traffic flows as a result of the proposed development, which is the threshold set out in the IEA Guidelines where there might be a 'slight' change in severance.
- 8.10.6 The proposed 3-arm signalised site access junction on the B3081 Shaftesbury Road at the eastern end of the Principal Street provides dedicated pedestrian crossing facilities on each arm of the junction to enable safe pedestrian movement across the B3081 Shaftesbury Road, i.e. between the central parcel and Park Farm parcel.
- 8.10.7 The proposed to implement an improvement scheme at the B3081 Shaftesbury Road / B3092 New Road signalised junction includes a new pedestrian crossing on the southern arm of the junction. This facility will minimise the need for pedestrians to cross the B3092 New Road and therefore better accommodates the main desire line for school children travelling between the Secondary School/town centre and the residential areas to the south of the town.
- 8.10.8 The proposed improvement scheme at the B3081 Le Neubourg Way / Newbury (High Street) includes full pedestrian crossing facilities on the southern side of the junction, across the B3081 Shaftesbury Road and Newbury (High Street) in order to facilitate pedestrian movements along the main pedestrian desire line between the residential areas located to the south of the town, including the Gillingham Southern Extension, and the town centre and Gillingham Secondary School. Currently there are no crossing facilities at this junction and this therefore represents a significant improvement in comparison to the existing situation.
- 8.10.9 Therefore, overall, the proposed mitigation measures will result in a **minor beneficial** effect in mitigating the effects of Severance.

Driver Delay

- 8.10.10 As detailed in paragraph 8.9.23 and 8.9.24, a number of off-site highway mitigation measures have been identified in response to the effect of driver delay. Tables 8.21 and 8.22 provide a comparison of the driver delay in terms of journey time between the '2021 Base' scenario and the '2021 with Development' scenario.

Table 8.21 - Driver Delay (Seconds) AM Peak (0800 - 0900) - '2021 Base' and '2021 with Development with Mitigation'

Route	2021 Base	2021 Plus Development (with Mitigation)
B3081/B3092 Corridor Northbound		
Park Farm Roundabout to B3092	447	143



B3092 to Bay Road	153	172
<i>Total B3081/B3092 Corridor – Park Farm Rdbt to Bay Road (NB)</i>	<i>600</i>	<i>315</i>
B3081/B3092 Corridor Southbound		
Bay Road to B3092	215	193
B3092 to Park Farm Roundabout	95	98
<i>Total B3081/B3092 Corridor – Bay Road to Park Farm Rdbt (SB)</i>	<i>310</i>	<i>291</i>
B3092 New Road – Cole Street Lane to B3081 (NB)	207	127
B3092 New Road – B3081 to Cole Street Lane (SB)	95	101
Brickfield Business Park to Park Farm Roundabout (SB) via B3081	257	255
Park Farm Roundabout to Brickfields Business Park (NB) via B3081	506	196
Principal Street (East)	n/a	154
Principal Street (West)	n/a	130

Table 8.22 - Driver Delay (Seconds) PM Peak (1700 - 1800) - '2021 Base' and '2021 with Development with Mitigation'

Route	2021 Base	2021 Plus Development (with Mitigation)
B3081/B3092 Corridor Northbound		
Park Farm Roundabout to B3092	365	122
B3092 to Bay Road	163	173

<i>Total B3081/B3092 Corridor – Park Farm Rdbt to Bay Road (NB)</i>	<i>528</i>	<i>295</i>
B3081/B3092 Corridor Southbound		
Bay Road to B3092	190	183
B3092 to Park Farm Roundabout	91	93
<i>Total B3081/B3092 Corridor – Bay Road to Park Farm Rdbt (SB)</i>	<i>281</i>	<i>276</i>
B3092 New Road – Cole Street Lane to B3081 (NB)	147	146
B3092 New Road – B3081 to Cole Street Lane (SB)	93	99
Brickfield Business Park to Park Farm Roundabout (SB) via B3081	196	238
Park Farm Roundabout to Brickfields Business Park (NB) via B3081	425	187
Principal Street (East)	n/a	159
Principal Street (West)	n/a	129

8.10.11 Tables 8.21 and 8.22 demonstrate that overall the journey times on the B3081/B3092 and B3092 corridor between Park Farm Roundabout and Bay Road, as well as on B3092 New Road, will reduce in 2021 with the proposed development and highways / junction improvements in place when compared with the 2021 base situation

8.10.12 The potential improvement scheme at A30 / A350 / B3081 'Ivy Cross Roundabout' will effectively mitigate the effects of the additional development traffic in the 2021 design year and the junction will perform more efficiently in the evening peak hour than if the development does not proceed.

8.10.13 Therefore the proposed mitigation measures will result in a **moderate beneficial** effect in terms of driver delay, including on the links adjacent to the identified sensitive receptors.

Pedestrian Delay and Amenity

8.10.14 A fundamental element of the access strategy is to achieve integration between the site and the remainder of Gillingham and key destinations through improved linkages and connectivity. This includes



walking and cycling improvements on the links into Gillingham town centre. This will assist in improving the pleasantness of the pedestrian journeys along these routes for both existing and future residents.

8.10.15 Enhanced pedestrian provision as part the off-site improvements to the B3081 Shaftesbury Road / B3092 New Road and B3081 Le Neubourg Way / Newbury (High Street) junctions would assist in minimising delay to pedestrians, particularly on the main desire line for school children travelling between the Secondary School/town centre and the residential areas to the south of the town.

8.10.16 The Proposed Development is expected to have a **moderate beneficial** effect in terms of pedestrian delay and amenity.

Fear and Intimidation

8.10.17 The results for the assessed links as a result of the proposed development are summarised in Table 8.23.

Table 8.23 - Fear and Intimidation - '2021 with Development (With Mitigation)'

Location	2021 Two-way AADT (Vehicles)		Degree of Hazard	
	2021 Base	2021 'With Development (With Mitigation)'	2021 Base	2021 With Development
B3081 South of Access	792	937	Moderate	Moderate
B3081 North of Access	792	873	Moderate	Moderate
B3092 South of Principal Access (South of Cole St Lane)	353	392	n/a	n/a
B3092 North of Brickyard Lane	452	473	n/a	n/a
B3081 South of B3092	877	926	Moderate	Moderate
B3081 North of B3092	1,139	1,337	Moderate	Great
B3092 between Wyke Rd and Station Rd	940	1,051	Moderate	Moderate
B3081 Wyke Rd	614	669	Moderate	Moderate
B3092 North of Wyke Rd	762	779	Moderate	Moderate
Newbury (High Street)	324	360	n/a	n/a
B3092 south of Brickfields Business Park	352	408	n/a	n/a

Principal Street (West)	n/a	217	n/a	n/a
Principal Street (East) – Access Only	n/a	253	n/a	n/a
A350 Grosvenor Road	903	965	Moderate	Moderate
A350 Little Content Lane	1,278	1,391	Great	Great
B3081 Bleke Street	879	1,054	Moderate	Moderate
B3092 Back Street	263	314	n/a	n/a
B3092 Scotchey Hill	368	395	n/a	n/a
A30 (West)	306	331	n/a	n/a

Note: n/a = less than the identified vehicles per hour threshold set out in the IEA guidelines

Moderate = 600-1200 vehicles per hour (average traffic flow over 18-hour hour day)

Great = 1200-1800 vehicles per hour (average traffic flow over 18-hour hour day)

Extreme = 1800+ vehicles per hour (average traffic flow over 18-hour hour day)

8.10.18 It is identified that the increase in traffic flows on the B3081 to the north of the junction with the B3092 will result in the degree of hazard for fear and intimidation shifting from 'Moderate' to 'Great'. The pedestrian facilities along this section will be significantly improved with enhanced pedestrian provision as part the off-site improvements to the B3081 Shaftesbury Road / B3092 New Road and B3081 Le Neubourg Way / Newbury (High Street) junctions to mitigate this impact. Taking into account the proposed mitigation measures, the Proposed Development is therefore predicted to have a **minor adverse** effect in terms of fear and intimidation on this link.

8.10.19 At all other locations, the degree of hazard for fear and intimidation within the study area does not increase as a result of the proposed development traffic. The Proposed Development is therefore predicted to have a **negligible** effect overall in terms of fear and intimidation on the assessed links.

Accidents and Safety

8.10.20 With the proposed pedestrian, cyclist and highways improvements, it is considered that the development proposal offers the potential for a **minor beneficial** effect in terms of accidents and safety in the local area.

Hazardous Loads

8.10.21 It has already been concluded that the development proposal will have a **negligible** effect on hazardous loads and therefore there is no requirement for any mitigation.

Dirt on the Highway

8.10.22 It has already been concluded that the development proposal will have a **negligible** effect on highway dirt and therefore there is no requirement for any mitigation.

Sensitivity Test – '2031 with Local Plan with Development with Mitigation'

8.10.23 Table 8.24 summarises the '2031 with Development and Mitigation' traffic flows on the local highway network.

**Table 8.24 - Two-Way AADT Traffic Flows - '2031 Base' and '2031 with Development with Mitigation'**

Location	2031 Two-way AADT (Vehicles)			
	2031 Base	2031 with Local Plan 'With Development (With Mitigation)'	Change	% Change
B3081 South of Access	13,825	17,987	4,161	30.1%
B3081 North of Access	13,832	16,216	2,384	17.2%
B3092 South of Principal Access (South of Cole St Lane)	6,163	7,678	1,514	24.6%
B3092 North of Brickyard Lane	7,911	10,167	2,256	28.5%
B3081 South of B3092	15,283	16,441	1,158	7.6%
B3081 North of B3092	19,878	25,642	5,764	29.0%
B3092 between Wyke Rd and Station Rd	16,287	21,156	4,870	29.9%
B3081 Wyke Rd	10,752	12,308	1,556	14.5%
B3092 North of Wyke Rd	13,325	14,568	1,242	9.3%
Newbury (High Street)	5,737	4,605	-1,131	-19.7%
B3092 south of Brickfields Business Park	6,160	9,186	3,026	49.1%
Principal Street (East)	n/a	5,642	n/a	n/a
Principal Street (West)	n/a	6,465	n/a	n/a
A350 Grosvenor Road	16,246	17,279	1,033	6.0%
A350 Little Content Lane	23,331	25,231	1,900	7.5%
B3081 Bleke Street	16,724	19,658	2,933	14.9%
B3092 Back Street	5,492	6,340	848	13.4%

B3092 Scotchey Hill	7,026	7,460	433	5.8%
A30 (West)	5,677	6,092	415	6.8%

Severance

8.10.24 Table 8.24 demonstrates that the proposed development will result in a greater than 30% increase in two-way traffic flows on the following link under the '2031 with Development with Mitigation' Scenario:

- B3081 South of Access – 30.1%
- B3092 South of Brickfield Business Park – 49.1%.

8.10.25 The two-way traffic flows on the B3092 between Wyke Road and the B3081 north of the B3092 are also forecast to increase by 29.9% and 29.0% respectively.

8.10.26 The forecast increases are as a result of the completion of the new road link between the B3081 Shaftesbury Road and B3092 New Road coupled with the additional traffic from the extended Brickfields Business Park. The new link road provides an alternative route for traffic accessing Brickfields Business Park and other existing developments off New Road, particularly for journeys to the south and therefore the flows on the B3092 to the north of Brickyard Lane and the B3081 Shaftesbury Road to the south of the B3081 are lower than would otherwise be the case without this link road.

8.10.27 Therefore, overall, the proposed mitigation measures will result in a **minor beneficial** effect in mitigating the effects of Severance.

Driver Delay

8.10.28 As detailed in paragraph 8.9.24 and 8.9.25, a number of off-site highway mitigation measures have been identified in response to the effect of driver delay. Tables 8.25 and 8.26 provide a comparison of the driver delay in terms of journey time between the '2031 Base' scenario and the '2031 with Development' scenario.

Table 8.25 - Driver Delay (Seconds) AM Peak (0800 - 0900) - '2031 Base' and '2031 with Development with Mitigation'

Route	2031 Base	2031 with Local Plan Plus Development (with Mitigation)
B3081/B3092 Corridor Northbound		
Park Farm Roundabout to B3092	501	271
B3092 to Bay Road	157	169



<i>Total B3081/B3092 Corridor – Park Farm Rdbt to Bay Road (NB)</i>	<i>658</i>	<i>440</i>
B3081/B3092 Corridor Southbound		
Bay Road to B3092	222	211
B3092 to Park Farm Roundabout	95	98
<i>Total B3081/B3092 Corridor – Bay Road to Park Farm Rdbt (SB)</i>	<i>317</i>	<i>309</i>
B3092 New Road – Cole Street Lane to B3081 (NB)	205	204
B3092 New Road – B3081 to Cole Street Lane (SB)	95	115
Brickfield Business Park to Park Farm Roundabout (SB) via B3081	254	296
Park Farm Roundabout to Brickfields Business Park (NB) via B3081	574	366
Principal Street (East)	n/a	169
Principal Street (West)	n/a	154

<i>Total B3081/B3092 Corridor – Park Farm Rdbt to Bay Road (NB)</i>	<i>587</i>	<i>424</i>
B3081/B3092 Corridor Southbound		
Bay Road to B3092	198	203
B3092 to Park Farm Roundabout	91	102
<i>Total B3081/B3092 Corridor – Bay Road to Park Farm Rdbt (SB)</i>	<i>289</i>	<i>305</i>
B3092 New Road – Cole Street Lane to B3081 (NB)	167	198
B3092 New Road – B3081 to Cole Street Lane (SB)	93	109
Brickfield Business Park to Park Farm Roundabout (SB) via B3081	216	310
Park Farm Roundabout to Brickfields Business Park (NB) via B3081	492	303
Principal Street (East)	n/a	170
Principal Street (West)	n/a	144

Table 8.25 - Driver Delay (Seconds) PM Peak (1700 - 1800) - '2031 Base' and '2031 with Development with Mitigation'

Route	2031 Base	2031 with Local Plan Plus Development (with Mitigation)
B3081/B3092 Corridor Northbound		
Park Farm Roundabout to B3092	420	201
B3092 to Bay Road	167	223

8.10.29 Tables 8.25 and 8.26 demonstrate that overall the journey times on the B3081/B3092 and B3092 corridor between Park Farm Roundabout and Bay Road, as well as on B3092 New Road, will reduce in 2031 with the proposed development and highways / junction improvements in place when compared with the 2031 base situation

8.10.30 The potential improvement scheme at A30 / A350 / B3081 'Ivy Cross Roundabout' will effectively mitigate the effects of the additional development traffic in the 2031 design year and the junction will perform more efficiently in the evening peak hour than if the development does not proceed.

8.10.31 Therefore the proposed mitigation measures will result in a **moderate beneficial** effect in terms of driver delay, including on the links adjacent to the identified sensitive receptors.



Pedestrian Delay and Amenity

8.10.32 The Proposed Development is expected to have a **moderate beneficial** effect in terms of pedestrian delay and amenity in the '2031 with Development with Mitigation' scenario as a result of the proposed pedestrian and cycling improvements.

Fear and Intimidation

8.10.33 The results for the assessed links as a result of the proposed development are summarised in Table 8.26.

Table 8.26 - Fear and Intimidation - '2031 with Development (With Mitigation)'

Location	2031 Two-way AADT (Vehicles)		Degree of Hazard	
	2031 Base	2031 with Local Plan 'With Development (With Mitigation)'	2031 Base	2031 With Development
B3081 South of Access	825	1,073	Moderate	Moderate
B3081 North of Access	825	968	Moderate	Moderate
B3092 South of Principal Access (South of Cole St Lane)	368	458	n/a	n/a
B3092 North of Brickyard Lane	472	607	n/a	Moderate
B3081 South of B3092	912	981	Moderate	Moderate
B3081 North of B3092	1,186	1,530	Moderate	Great
B3092 between Wyke Rd and Station Rd	972	1,262	Moderate	Great
B3081 Wyke Rd	642	734	Moderate	Moderate
B3092 North of Wyke Rd	795	869	Moderate	Moderate
Newbury (High Street)	342	275	n/a	n/a
B3092 south of Brickfields Business Park	368	548	n/a	n/a
Principal Street (West)	n/a	337	n/a	n/a

Principal Street (East) – Access Only	n/a	386	n/a	n/a
A350 Grosvenor Road	969	1,031	Moderate	Moderate
A350 Little Content Lane	1,392	1,506	Great	Great
B3081 Bleke Street	998	1,173	Moderate	Moderate
B3092 Back Street	327	378	n/a	n/a
B3092 Scotchey Hill	419	445	n/a	n/a
A30 (West)	339	364	n/a	n/a

Note: n/a = less than the identified vehicles per hour threshold set out in the IEA guidelines
 Moderate = 600-1200 vehicles per hour (average traffic flow over 18-hour hour day)
 Great = 1200-1800 vehicles per hour (average traffic flow over 18-hour hour day)
 Extreme = 1800+ vehicles per hour (average traffic flow over 18-hour hour day)

8.10.34 It is identified that the increase in traffic flows on the B3081 to the north of the junction with the B3092 and the B3092 between Wyke Road and Station Road will result in the degree of hazard for fear and intimidation shifting from 'Moderate' to 'Great'. The degree of hazard for fear and intimidation on the B3092 North of Brickyard Lane will also increase from below the threshold identified to 'Moderate'.

8.10.35 The pedestrian facilities within Gillingham will be significantly improved with enhanced pedestrian provision as part the off-site improvements to the B3081 Shaftesbury Road / B3092 New Road and B3081 Le Neubourg Way / Newbury (High Street) junctions. Taking into account the proposed mitigation measures, the Proposed Development is therefore predicted to have a **minor adverse** effect in terms of fear and intimidation on these links.

8.10.36 At all other locations, the degree of hazard for fear and intimidation within the study area does not increase as a result of the proposed development traffic. The Proposed Development is therefore predicted to have a **negligible** effect overall in terms of fear and intimidation on the assessed links in the '2031 with Development with Mitigation' scenario.

Accidents and Safety

8.10.37 With the proposed pedestrian, cyclist and highways improvements, it is considered that the development proposal offers the potential for a **minor beneficial** effect in terms of accidents and safety in the local area.

Hazardous Loads

8.10.38 It has already been concluded that the development proposal will have a **negligible** effect on hazardous loads and therefore there is no requirement for any mitigation.

Dirt on the Highway

8.10.39 It has already been concluded that the development proposal will have a **negligible** effect on highway dirt and therefore there is no requirement for any mitigation.



8.11 Cumulative Impacts

- 8.11.1 Developments benefitting from a valid planning permission which had not commenced or been completed at the time of the traffic surveys to establish the 2016 Base Gillingham traffic model have been taken into account to derive the 2021 Base traffic flow forecasts.
- 8.11.2 The principal committed developments in the local area that have been taken into account in the 2021 Base traffic flow forecasts and subsequent 2021 scenarios are as follows:
- 2/2006/0026 – Kingsmead Business Park: Commercial garage / dealership with a GFA of 973sqm allowed on appeal reference: APP/N1215/A/06/2010473/NWF;
 - 2/2010/0803/PLNG – Kingsmead Business Park: Erection of two-story building (B1/B2/B8) with a GFA of 1,314sqm;
 - 2/2006/0026 – Kingsmead Business Park – Two no. B1/B2/B8 units with a GFA of 552sqm;
 - 2/2016/0149/OUT – Land at Bay: 50 new residential dwellings;
 - 2/2002/0415 and 2/2002/0880 – Land East of Shaftesbury: The construction of 811 dwellings at land adjacent to Greenacres, Salisbury Road – 97 units remaining to be occupied at the time of the traffic surveys (parcels 6 and 7);
 - 2/2015/0598/OUT – Land West of Littledown, Shaftesbury: 170 new dwellings, public open space and play areas;
 - 2/2104/1350/FUL – Land adjacent to Wincombe Business Park: 191 new dwellings and public open space;
 - 14/06780/OUT (Wiltshire Council) – Land at the Hill Brush Co Ltd Mere: Demolition of existing factory and dwellings known as Maltot and development of 134 dwellings.

8.11.3 The cumulative impact of the committed development in the local area has therefore been allowed for in the assessments.

8.12 Assessment Summary and Residual Environmental Effects (Traffic and Transport)

- 8.12.1 This chapter has assessed the environmental effects of the predicted increases in traffic associated with the proposed construction and operation of the development proposals. The assessments have focused on the operation stage when the predicted increases in traffic are likely to be greatest.
- 8.12.2 Overall, the environmental effects are predicted to be negligible with the increases in traffic generally below the threshold where environmental effects are likely to be significant. Moreover, the proposals incorporate improvements to the adjoining network which would benefit road users including pedestrians and cyclists and are likely to produce positive beneficial environmental effects.
- 8.12.3 The potential impacts of the proposed development on receptors, mitigation measures proposed and the predicted residual effects are summarised in Table 8.27.

Table 8.27 Assessment Summary and Residual Environmental Effects (Traffic and Transport)



Summary description of the identified impact	Significance and Nature of Effect	Mitigation	Residual Significance and Nature of Effect
Construction			
Severance	Negligible	Construction and Environmental Management Plan and Construction Traffic Management Plan	Negligible
Driver Delay	Negligible		Negligible
Pedestrian Delay	Negligible		Negligible
Pedestrian Amenity	Negligible		Negligible
Fear and Intimidation	Negligible		Negligible
Accidents and Safety	Negligible		Negligible
Hazardous Loads	Negligible		Negligible
Dirt on the Highway	Negligible		Negligible
Operation			
Severance	Negligible		Minor Beneficial
Driver Delay	Moderate to Major Adverse		Moderate Beneficial
Pedestrian Delay	Negligible		Moderate Beneficial
Pedestrian Amenity	Negligible		Moderate Beneficial
Fear and Intimidation	Negligible to Moderate Adverse		Negligible to Minor Adverse



Accidents and Safety	Minor Adverse	Phased Transport Strategy to deliver improvements to: <ul style="list-style-type: none">• B3081/B3092 corridor on-line junction improvements;• New road link between the B3081 Shaftesbury Road and B3092 New Road;• Key pedestrian and cycle routes between the site and key destinations;• Bus service enhancements;• Framework Travel Plan; and• Town wide Personalised Travel Planning.	Minor Beneficial
Hazardous Loads	Negligible		Negligible
Dirt on the Highway	Negligible		Negligible

**Table 0.1 Means by which Additional Mitigation Measure may be Secured (Traffic and Transport)**

Identified Effect where additional mitigation (Not design mitigation) has been identified	Type of mitigation measures (avoidance, reduction, compensation, enhancement)	Means by which mitigation measure may be secured
Construction		
Hazardous Loads / Dirt on the Highway	Construction and Environmental Management Plan	Condition
Operation		
Off-Site Junction Improvements		
Severance / Driver Delay / Pedestrian Delay / Pedestrian Amenity / Fear and Intimidation / Accidents and Safety	B3081 Shaftesbury Road / B3092 New Road junction improvement scheme	Obligation
	B3081 Shaftesbury Road / Newbury (High Street) junction improvement scheme	Obligation
	Provision of SCOOT UTC on the B3081 / B3092 corridor	Obligation
	Ivy Cross Roundabout improvement scheme or equivalent financial contribution towards Enmore Link Road	Obligation / Contribution
Off-Site Pedestrian and Cycle Improvements		
Severance / Pedestrian Delay / Pedestrian Amenity / Fear and Intimidation / Accidents and Safety	Off-Site Pedestrian and Cycle Improvements: Route 1 – New Road from Addison Close to Shaftesbury Road	Condition / Obligation
	Off-Site Pedestrian and Cycle Improvements: Route 2 – Shaftesbury Road from junction with Rookery Close (including link to Trent Square/Fern Brook Lane) to Newbury (High Street)	Condition / Obligation
	Off-Site Pedestrian and Cycle Improvements: Route 3 – Station Road from Gillingham Rail Station to town centre; and	Condition / Obligation

Identified Effect where additional mitigation (Not design mitigation) has been identified	Type of mitigation measures (avoidance, reduction, compensation, enhancement)	Means by which mitigation measure may be secured
	Off-Site Pedestrian and Cycle Improvements: Route 4 – Newbury (High Street) and Hardings Lane to Gillingham Secondary school	Condition / Obligation
	Off-Site Pedestrian and Cycle Improvements: Wayfinding signing	Condition / Obligation
	Improvements to pedestrian access to Gillingham rail station via the off-road route on Brickyard Lane to the south of the railway line	Contribution
	Improvements to the footpath links along the Lodden Valley between the site boundary and Shaftesbury Road	Contribution
	Improvements to Footpath No.64/47 and 64/48 to the west of Gillingham rail station, including the pedestrian bridge over River Stour	Contribution
Framework Travel Plan		
Severance / Driver Delay / Pedestrian Delay / Pedestrian Amenity / Fear and Intimidation / Accidents and Safety	Framework Travel Plan including Personalised Travel Planning	Condition / Obligation / Contribution
Public Transport Improvements		
Severance / Pedestrian Delay / Pedestrian Amenity / Fear and Intimidation	Phased increases in bus service frequency (in conjunction with development completions) on the Gillingham – Shaftesbury corridor to a service level of approximately one every 20 minutes between 07:00 – 19:00 Monday – Saturday	Condition / Obligation / Contribution
	Bus stop infrastructure including bus shelters reasonable walk distance of properties as well as additional key bus stops within Gillingham town centre and at the rail station	Condition / Obligation



Identified Effect where additional mitigation (Not design mitigation) has been identified	Type of mitigation measures (avoidance, reduction, compensation, enhancement)	Means by which mitigation measure may be secured
	Financial contribution towards the enhancements of the community transport schemes and community led transport initiatives within Gillingham	Contribution
	Bus season tickets and personalised travel planning (as included in the Framework Travel Plan).	Condition / Obligation / Contribution
	Additional cycle parking at Gillingham rail station	Contribution

8.13 References

Department for Communities and Local Government, 2014, Planning Practice Guidance

Institute of Environmental Management and Assessment, 1993, Guidelines for the Environmental Assessment of Road Traffic. Guidance Note 1, IEA

Department for Communities and Local Government, 2012. The National Planning Policy Framework

Department for Communities and Local Government 2014. National Planning Practice Guidance

North Dorset District Council 2016. North Dorset District Council Local Plan – Part 1

8.14 Glossary

Term	Definition
TA	Transport Assessment

ⁱ Department for Communities and Local Government, 2014, Planning Practice Guidance

ⁱⁱ Institute of Environmental Management and Assessment, 1993, Guidelines for the Environmental Assessment of Road Traffic. Guidance Note 1, IEA

FTP	Framework Travel Plan
NPPG	National Planning Practice Guidance
LTP	Local Transport Plan
IEA	Institute of Environmental Assessment
AADT	Annual Average Daily Traffic
AAWT	18-hour Annual Average Weekday Traffic
ATC	Automatic Traffic Count
PIA	Personal Injury Accident
NTM	National Transport Model
HGV	Heavy Goods Vehicle
CEMP	Construction and Environmental Management Plan
TMA	Transport Management Association
TPC	Travel Plan Co-ordinator

ⁱⁱⁱ Department for Communities and Local Government, 2012. The National Planning Policy Framework

^{iv} Department for Communities and Local Government 2014. National Planning Practice Guidance

^v North Dorset District Council 2016. North Dorset District Council Local Plan – Part 1