

An outline of the background to and actions being taken by Dartford Borough Council and its partners to encourage travel by more sustainable means for the benefit of the people in the Borough.

A Sustainable Transport Strategy for Dartford

Framework for Co-ordinated
Implementation

13th September 2021

DARTFORD
BOROUGH COUNCIL

Contents

	<u>Page</u>
1. Introduction	1
Aims & Objectives	1
2. Background	4
Dartford's Transport Network	4
Travel Patterns	5
Strategic Transport Issues	6
Air Quality	7
Growth in the Borough	8
Ebbsfleet Garden City	9
London Resort	10
3. Sustainable Transport Policy Context	13
National	13
Regional	15
Dartford Local Plan Publication 2021	17
Ebbsfleet Development Corporation	19
4. Travel Behaviour	21
5. Sustainable Travel Framework	26
Strategic/Area Focused Investment	27
Public Transport Interventions	40
Active Travel Measures	49
6. Delivery & Funding	56
Delivery	56
Funding	57
7. Monitoring & Review	58
Monitoring	58
Review of Strategy	58

Figures

	<u>Page</u>
Figure 1 Key Diagram	3
Figure 2 Current Fastrack Network	4
Figure 3 Air Quality Management Areas (AQMAs) Declared in Dartford	8
Figure 4 Ebbsfleet Development Corporation Area	9
Figure 5 Ebbsfleet Garden City Implementation Framework	12
Figure 6 Trends in Cycle Trips (NTS)	24
Figure 7 Phasing of Dartford Town Centre Regeneration Project	A1
Figure 8 Future Fastrack Network	A2
Figure 9 MaaS (Mobility as a Service) Ebbsfleet Zone	A3
Figure 10 Dartford's Strategic Green Grid Network	A4
Figure 11 Map of Bus Services in Dartford & Gravesham	A5

Tables

	<u>Page</u>
Table 1 National Travel Survey for England 2014-19	A6

Appendices

- Appendix A: Supporting Plans & Tables
- Appendix B: Local Plan Policies & References Supporting Sustainable Travel

1. Introduction

1.1 The [Dartford Local Plan Publication 2021](#)¹ states "the scale of development can only be accommodated without adverse impacts on the highway network if a significantly increased proportion of journeys are made through more sustainable forms of transport". This forms the basis of the Local Plan Strategic Objective I2 which states that planning decisions will pursue:

Facilitating a range of upgrades to the transport network; a choice of sustainable and active travel options; with rapid and reliable public transport linking existing neighbourhoods and developments to key destinations and facilities, together with a high quality and comprehensive active travel network.

1.2 Growth within the Borough will inevitably be accompanied by an increase in the desire to travel. Whilst there will remain key locations across the Borough's transport network where major improvements are needed to provide additional capacity for vehicles, a greater emphasis on more sustainable forms of travel, supported by infrastructure improvements seeks to achieve long-lasting changes in travel behaviour. This in turn will have wider benefits for people's health and wellbeing including air quality issues and more active lifestyles. Focusing on more sustainable travel will also contribute towards reducing the impacts of climate change.

1.3 The Dartford Sustainable Transport Strategy (DSTS) provides an overview of the policies, strategies and actions that the Council will pursue, in conjunction with its partners and developers, that will, in combination, enable and encourage an increase in the proportion of journeys made by more sustainable forms of transport. The DSTS is an "informal" document that accompanies Dartford's new Local Plan aimed at minimising the transport impacts of planned development over the Local Period to 2037.

1.4 The DSTS does not set any new transport policies but seeks to draw together relevant information on sustainable transport providing a coherent Framework that can be applied within the Borough. The DSTS sits alongside, but does not replace, other formal documents produced by the Council such as the [Infrastructure Funding Statement](#)² and the [Infrastructure Delivery Plan](#)³. The DSTS aims to influence the strategies and actions adopted by others recognising national policies and strategies which have their own influence.

1.5 It is envisaged that the DSTS will be reviewed and updated on a regular basis as the effectiveness of measures adopted are analysed and new approaches to transport provision, including the use of new technologies, emerge.

Aims & Objectives

1.6 Taking into account concerns raised by Dartford resident's, employers and employees together with themes and actions that have emerged through long-term working with strategic partners a number of aims have been identified by the Council to alleviate

¹ <https://www.dartford.gov.uk/by-category/environment-and-planning2/new-planning-homepage/planning-policy/new-local-plan>

² <https://www.dartford.gov.uk/by-category/environment-and-planning2/new-planning-homepage/community-infrastructure-levy>

³ <https://www.dartford.gov.uk/by-category/environment-and-planning2/new-planning-homepage/planning-policy/evidence-base2>

transport impacts arising from planned development within the Borough. Over the Local Plan Period to 2037 the overall aims of DSTS are to:

- Reduce car dependency and achieve a significant increase in sustainable and active travel trips by residents, businesses, employees and visitors;
- Secure an improved choice of sustainable travel modes, including the provision of safe active travel infrastructure, and a greater awareness of travel choice;
- Provide a cohesive and connected transport network that supports emerging technology; and
- Reduce traffic congestion and emissions leading to better air quality.

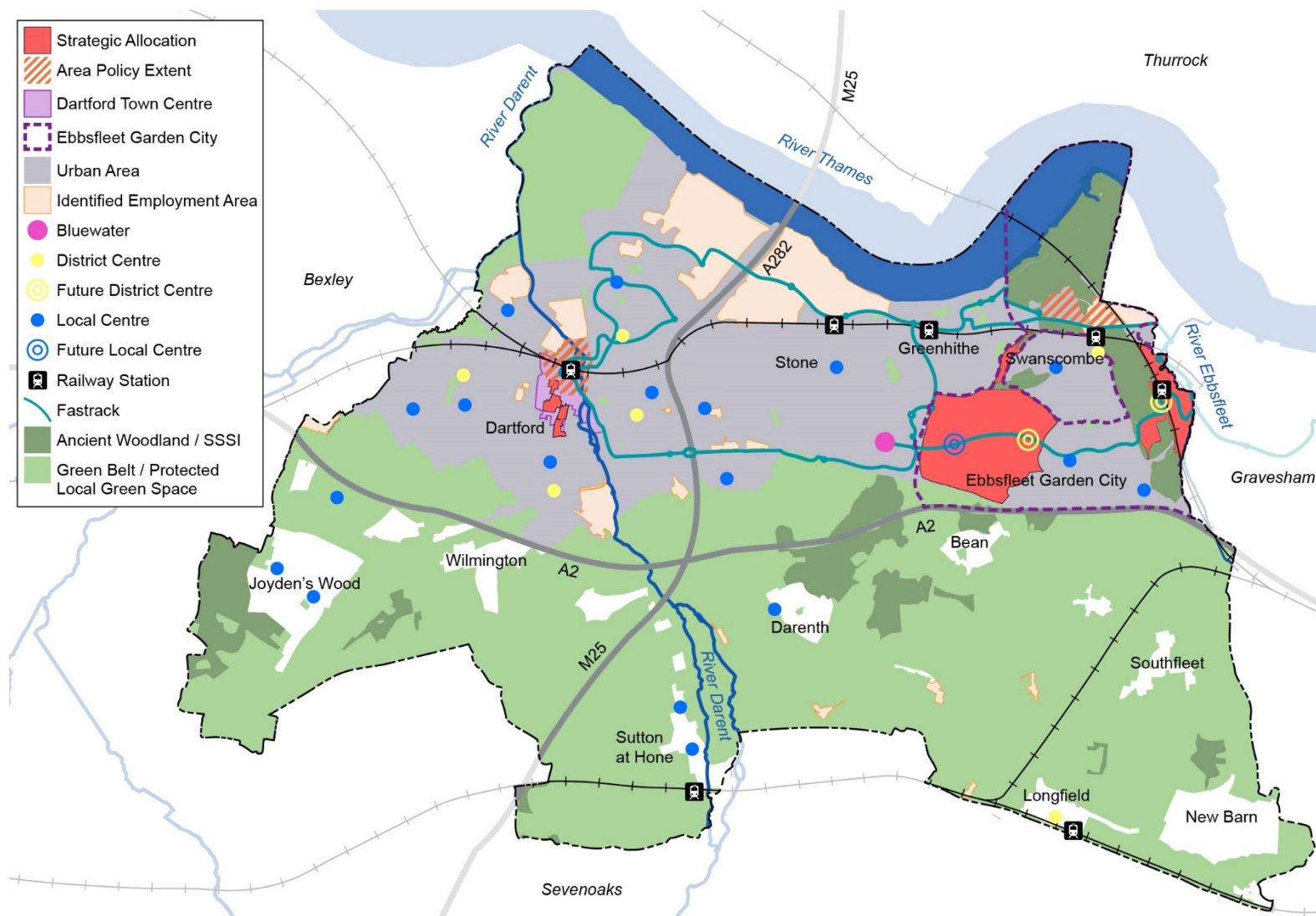
1.7 The DSTS focuses on actions and measures that seek to or are likely to contribute to these aims in order to mitigate any negative impacts arising from new development.

1.8 Measures considered within the DSTS cover infrastructure projects that seek to improve more sustainable forms of transport and active travel; the use of site specific travel plans through the Council's development management function; and "softer" measures that educate and raise awareness of travel choice and influence travel behaviours.

1.9 The DSTS:

- Provides an overview of existing and future sustainable travel and transport measures for the Borough;
- Focuses on measures and improvements that reduce dependency on car travel, reduce emissions from traffic, improve air quality and encourage better health;
- Supports Local Plan growth by offering alternatives to the private car and providing sustainable travel solutions to mitigate transport impacts;
- Outlines the measures to be adopted that would help to achieve a 15-30% mode shift from the private car to other modes for journeys;
- Show the contribution that would be made by a variety of partners, and the joint working required, to manage the adverse transport impacts arising from new development; and
- Set out the aims and objectives for delivery.

Figure 1: Key Diagram



2. Background

Dartford's Transport Network

2.1 The Borough is traversed by two strategic routes – the A2 Trunk Road and the M25 London Outer Orbital. The Dartford Crossings form part of the London Outer Orbital providing a key strategic crossing of the Thames for traffic travelling between the Channel ports and locations north of London.

2.2 Metro rail services currently operated by Southeastern trains link Dartford, Stone Crossing, Greenhithe and Swanscombe stations to London Charing Cross/Canon Street/Victoria via Woolwich/Bexleyheath/Sidcup. Thameslink services between Rainham and Luton also call at these stations. Southeastern also operate services between London Victoria and the Medway Towns that serve Farningham Road and Longfield stations in the south of the Borough. Added to these are Southeastern High Speed services between London St Pancras and Ebbsfleet International that provide further connections to both domestic and international destinations. Ebbsfleet International was also served by Eurostar services prior to the pandemic.

2.3 The principal routes on the Local Road Network comprise the A206, A226 and A296 that run predominantly in an East-West direction through the main urban areas of the Borough and the A225, B255, B258 and B260 that run in a predominantly North-South direction linking the urban areas with rural areas south of the A2. A number of other 'A' and 'B' roads form links between these principal routes.

2.4 Fastrack services were introduced in the Borough in 2006 providing a high quality and frequent Bus Rapid Transit (BRT) system. Two routes are currently in operation (see Figure 2 below). Route A runs between Dartford town centre and Bluewater shopping centre via Greenhithe station and serving The Bridge development and Crossways Business Park. Route B runs between Dartford and Gravesend town centres via Darent Valley Hospital, Bluewater, Greenhithe Station and Ebbsfleet Station. A third route has recently commenced serves a major employment site in the Littlebrook area north of Dartford town centre that will also provide services to local residents.

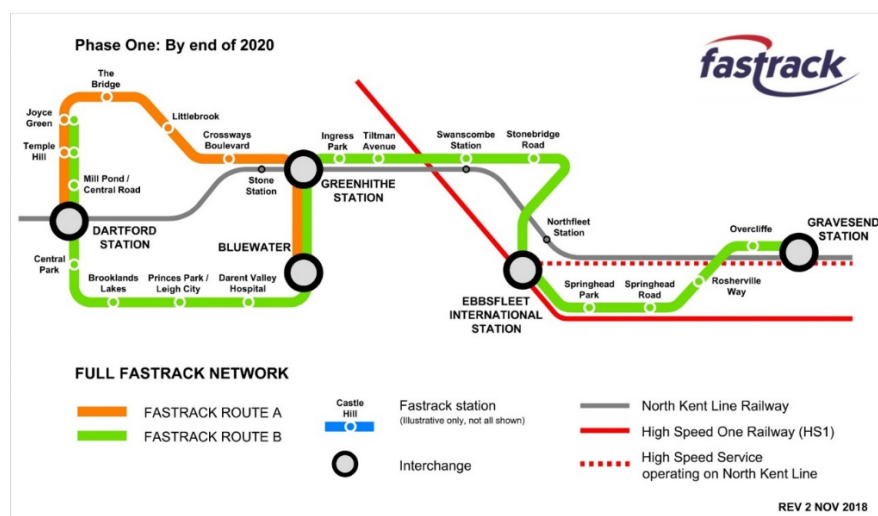


Figure 2: Current Fastrack Network

2.5 Fastrack complements a network of other privately operated bus services across Dartford Borough providing essential links between communities and key destinations such as Dartford Town Centre, Darent Valley Hospital, Bluewater shopping centre and Ebbsfleet International Station. These include 414, 423, 433, 477, 480/490, 481/484, 483 and 485/5A routes. The main bus operators in the area are Arriva and Go Coach but there are also services operated for Transport for London (TfL), such as routes 96, 428 and 492, that provide essential links into and out of the Borough whilst serving Darent Valley Hospital and Bluewater. Some of the services, particularly those operating in rural locations, are subsidised by Kent County Council as the Local Transport Authority. There are three main transport hubs within the Borough – Dartford Town Centre, Bluewater regional shopping centre and Ebbsfleet International Station – that allow passengers to connect with other bus services travelling both within and outside the Borough and rail services.

2.6 Active Travel, covering cycling and walking, is the simplest and most environmentally friendly way to travel around the Borough for shorter journeys and also to access transport hubs and stations. There are several quiet, traffic-free cycling routes available, such as National Cycle Route 125, and new and enhanced routes have been provided in some areas by both the local highway authority and as part of major development site implementations. In a similar way the Borough's pedestrian network is being improved with enhanced footways and better road crossings wherever possible. National Cycle Routes 1 and 125 run through the Borough on a mix of segregated and on-road cycle tracks and the Darent Valley Path provides a 19 mile waymarked path through the Borough. The pursuance of improvements to Active Travel modes not only provides new and enhanced infrastructure but also covers measures that promote, encourage and influence a greater use of cycling and walking as a means of transport for both day-to-day journeys and leisure activities.

Travel Patterns

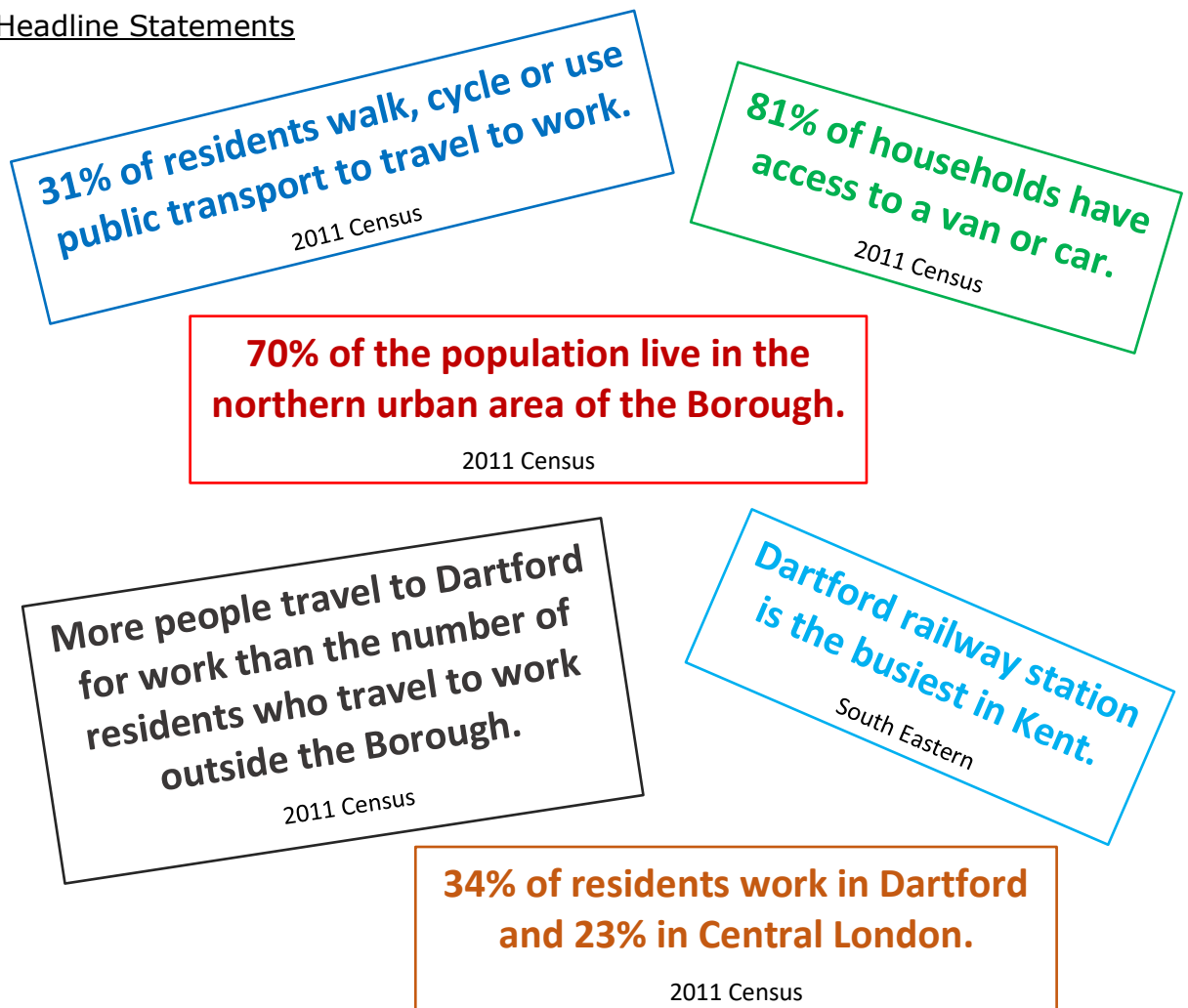
2.7 Dartford railway station has become the busiest station in Kent with an annual passenger usage of 4.62 million recorded in 2018/19. Across the Borough all stations, with the exception of Longfield, saw a rise in passenger use between 2018 and 2019. Dartford stations passenger use increased by 11%, a much higher rate than other stations across Kent, and more passengers used this station than all of the other stations in the Borough combined including Ebbsfleet station.

2.8 The Dartford Crossing/M25 corridor and the A2 London-Dover routes both result in high volumes of traffic flow through the Borough. Annual Average Daily Traffic Flows in 2019 were in the region of 101,300 vehicles on the A2 west of M25; 150,000 vehicles on the A2 east of M25 and 122,200 vehicles on the A282 north of the A2. The Dartford Crossings (M25) provide the only road link, to the east of London, between Kent and areas to the north of the country. The route is used by a large amount of international and national traffic and the capacity of the crossing is often exceeded for large periods of the day. A significant proportion of the traffic using the Dartford Crossings also uses the A2 corridor. This route is also primarily one of the main commuting routes into and out of London but also serves as a route for local traffic due to the close proximity of junctions and the limited number of east-west routes through the Borough.

2.9 The 2011 Census shows that for journeys to work made by Dartford residents wholly within Dartford 66% were made by vehicles, 22% by active travel modes and 12% by

public transport. For journeys to work outside of Dartford 65% were made by vehicles, 33% by public transport and only 2% by active travel modes. The mode share for journeys to work by vehicle is consistent regardless of location. For internal journeys to work by active travel modes the majority (20%) were made on foot. For journeys to work by public transport, internal journeys were predominantly by bus or coach (10%) whilst external journeys were predominantly by rail (28%). Few journeys to work (2% or less) were made by bicycle.

Headline Statements



Strategic Transport Issues

2.10 Queues on the approach to the Dartford Crossing and the M25 often affect the junctions to the south and impact on local traffic movements trying to access and cross the strategic road network. Any incidents on the strategic road network have significant impact on the surrounding area as traffic diverts onto the local road network to find alternative routes to continue their journeys. A growing lack of resilience on the strategic road network and the close proximity of junctions on these two strategic roads means that such events are occurring more regularly leading to gridlock on the local road network particularly through Dartford town centre. Such incidents can take several hours to clear due to the associated congestion and, therefore, impacts on the day-to-day lives of residents and workers in the Borough. The high level of traffic flows on the strategic road

network together with the issues of congestion, lack of resilience and impact on local traffic movements has a number of consequences for the Borough.

- The congestion itself has a negative impact on growth in the Borough.
- The high levels of traffic and congestion leads to concerns about poor air quality for those living alongside the roads in question, and can be attributed as the principal cause of higher emissions per capita than the regional average.
- The knock-on effect of congestion on the local road network impacts on people's lives and the local economy due to the lack of predictability of journey times and the associated travel costs.
- The environment along certain local roads is not conducive to Active Travel and congestion impacts on the reliability and journey times of public transport services.
- Whilst there are some localised congestion 'hotspots' on the local road network it is often difficult to separate these and identify workable solutions when issues related to the strategic road network and through traffic dominate the area.

2.11 Whilst the focus of this Strategy is on the measures and actions that support a more sustainable approach to travel these have to be placed within the context of the broader strategic transport movements that pass through the Borough on a daily basis. Long-term solutions to these strategic issues are not within the gift of the Council but can be achieved through close collaboration with key stakeholders and partners responsible for the wider strategic transport networks.

Air Quality

2.12 The Local Air Quality Management framework was implemented in 1997 and requires all local authorities to review and assess air quality within their area. Local authorities must declare an Air Quality Management Area (AQMA) where exceedances of the UK Air Quality Objectives are found to occur. There are three AQMAs (see Figure 3 below) that have been declared within Dartford:

AQMA No.1: A282 Tunnel Approach (declared in 2001)

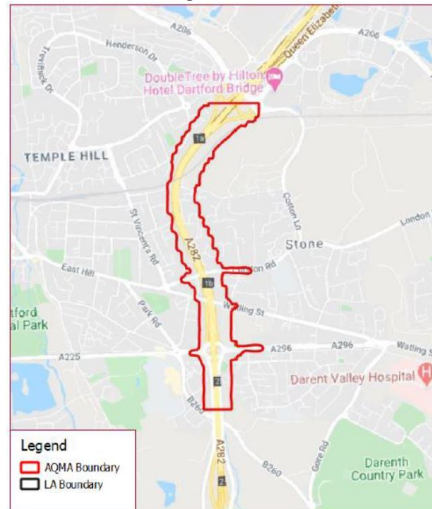
AQMA No.2: A226 London Road (declared in 2006)

AQMA No.3: Dartford Town Centre (declared in 2006)

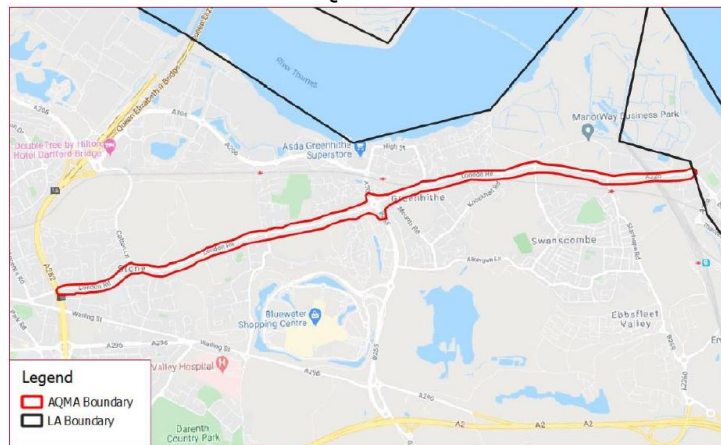
A fourth AQMA (Bean Interchange) was recently revoked when the sensitive receptors were removed due to the demolition of dwellings associated with the A2 Bean and Ebbsfleet Junction Improvement works being carried out by National Highways.

2.13 Air Quality Action Plans (AQAPs) have been produced for each of the AQMAs which call for National action (in the case of AQMA No.1), direct measures, such as the junction improvements at A2 Bean which resulted in the revocation of AQMA No.4, and borough-wide measures. The existing AQAPs are under review through an Air Quality Steering Group and the results of its findings will inform the further development of this Strategy.

AQMA No.1



AQMA No.2



AQMA No.3



Figure 3: Air Quality Management Areas (AQMAs) Declared in Dartford

Growth in the Borough

2.14 The Dartford Local Plan Publication 2021 sets out the Borough's development strategy for the period up to 2037 including the part of the Ebbsfleet Garden City within Dartford. The Plan sets a vision for sustainable development and a set of strategic objectives and principal overarching policies aimed at achieving this vision. The spatial

strategy for the Local Plan focuses on sustainable development; directed towards brownfield land not in the Green Belt with good access to public transport, active travel modes and local services.

2.15 Central Dartford and the Ebbsfleet Garden City continue to offer the best opportunity for sustainable development and the renewal of existing land and buildings. These locations will accommodate most of the assessed needs for residential development and high quality jobs in the future supported by good public transport, key local services and shopping/cultural/leisure facilities. New homes are required to be delivered at a rate of 790 per annum. Supporting the delivery of sustainable development aims and Dartford's economic strategy and regeneration areas, planning decisions will have regard to the desirability of providing approximately 22,000m² per annum of new commercial, business, service and community and learning uses; and approximately 25,000m² per annum of new industrial/distribution premises.

2.16 The Dartford Local Plan Publication 2021 will replace Dartford's existing [Core Strategy 2011](#) and [Development Policies Plan 2017](#)⁴. The Plan continues the overall objective of reducing demand for car travel and increasing the level of sustainable journeys as this approach remains key to managing the effects of growth in the Borough. This Sustainable Transport Strategy fully aligns with the objectives and policies of the Dartford Local Plan Publication 2021 setting a framework within which further strategies, interventions and programmes can be developed complementing existing infrastructure and measures currently being implemented.

Ebbsfleet Garden City



Figure 4: Ebbsfleet Development Corporation Area

2.17 In March 2014, Government announced its intention to establish a Garden City in North Kent that would deliver up to 15,000 new homes. In the following year the Ebbsfleet Development Corporation (EDC) was set up tasked with creating a 21st Century Garden City and delivering the new homes along with 30,000 new jobs and the infrastructure to support the planned development. The Ebbsfleet Garden City covers an area that falls within both Dartford and Gravesham Boroughs. The EDC is the planning authority for the Ebbsfleet Garden City dealing

with all aspects of planning applications and existing planning consents within their area (see Figure 3). The EDC is not, however, a plan making authority and relies on Local Plans

⁴ <https://www.dartford.gov.uk/by-category/environment-and-planning2/new-planning-homepage/planning-policy/adopted-plans>

developed by both Dartford and Gravesham Borough Councils and Kent County Council for its planning policies.

2.18 The EDC works closely with both of the Borough Councils, the County Council and with local communities to develop a shared vision for the area. The overall aim is to provide high quality, attractive and sustainably constructed housing along with opportunities for work. The EDC has an infrastructure and investment programme that will deliver the services required by the planned development along with transport improvements needed. This includes building a strong, constructive relationship with landowners, developers, utility companies and transport providers to ensure that infrastructure is provided in a timely manner. Although the EDC is not a plan making authority it has produced the [Ebbsfleet Implementation Framework](#)⁵ which sets out the Vision for the Garden City and a broad spatial framework of the planned development. This spatial framework is shown in Figure 5 below.

2.19 The EDC has the ability to acquire land giving it a greater degree of control over how parts of the Garden City can develop. Recently it has become the landowner of the Ebbsfleet Central area and is in the process of producing a master plan for its development. This has had to take account of the recent announcement by Natural England of the intention to declare a Site of Special Scientific Interest covering Swanscombe Peninsula and a large part of the Ebbsfleet Central area. Subject to completion of the master plan planning applications would follow for the development of the area replacing the existing outline consent that was granted in 2002.

London Resort

2.20 In 2012, it was announced by London Resort Company Holdings (LRCH) that a major entertainment resort was to be developed on the Swanscombe Peninsula in North Kent. In May 2014, after submitting information to Government, the London Resort project was designated as a Nationally Significant Infrastructure Project (NSIP) and as such LRCH would submit an application for a Development Consent Order under the Planning Act 2008 which, after examination, would be determined by the Secretary of State.

2.21 The scale of the proposals for this entertainment resort would be significantly larger than any other of its kind within the UK and would, therefore, be a major attraction for the local population of Kent, UK domestic visitors and international visitors. The proximity to London and access to high-speed domestic and international rail services via Ebbsfleet International Station were a key determination in the choice of location.

2.22 The application for a Development Consent Order (DCO) for the London Resort was formally submitted to the Planning Inspectorate on 31 December 2020. However, since this submission LRCH has been asked to provide further information, particularly in relation to transport, and the proposed development has been impacted by the declaration of the SSSI. In relation to this Sustainable Transport Strategy, LRCH will need to include specific transport measures that are feasible and deliverable to encourage visitors and staff to travel to and from the Resort by sustainable means. This should focus on rail and other public transport, including river services where appropriate, along with infrastructure supporting active travel linked with the existing and future network being developed. The detailed proposals and impacts of the Resort will be assessed through the NSIP process

⁵ <https://ebbsfleetdc.org.uk/the-vision/>

but the Council, working jointly with the EDC and KCC have an expectation that, if granted, the impact of the Resort on Dartford's local road network will be adequately mitigated through requirements in the DCO and s106 obligations.

2.23 Taking into account that the proposed Resort may not receive consent or, whilst receiving consent, may not be delivered as envisaged, Dartford's Local Plan provides a policy framework for Swanscombe Peninsula that allows for alternative development. This policy would be reviewed in the event that the London Resort proposals reached construction and, in such circumstances, this Sustainable Transport Strategy would also be reviewed to take account of the sustainable transport measures to be delivered by the Resort.



Figure 5: Ebbsfleet Garden City Implementation Framework

3. Sustainable Transport Policy Context

National

3.1 The [National Planning Policy Framework \(NPPF July 2021\)](#)⁶ sets out the Government's planning policies for England and how these should be applied. Section 2 of the NPPF covers sustainable development by pursuing the three overarching and independent objectives of economy, social and environment in mutually supportive ways. There is an overriding presumption in favour of sustainable development both during plan-making activities and in the decision making on specific development proposals.

3.2 Section 9 of the NPPF promotes sustainable transport through:

- The consideration of transport issues from the earliest stage of plan-making and development proposals.
- Actively managing the patterns of growth through the planning system.
- Producing planning policies that support an appropriate mix of uses; actively involve local highway authorities and other transport providers; identify and protect sites and routes which could be critical to the delivery of transport infrastructure; provide for walking and cycling networks; and provide for any large scale transport facilities.
- Set parking standards for residential and non-residential development.
- Assess the impact of development in terms of the opportunities to promote sustainable transport; safe and suitable access; the design of streets, parking and transport elements; and the developments impact on the transport network.
- Developments generating significant amounts of movement should be required to provide a travel plan.

3.3 In 2017, the Government published its first [Cycling & Walking Investment Strategy](#)⁷ setting out its ambition to make cycling and walking the natural choices for shorter journeys, or as part of a longer journey. Cycling and walking should be seen as transport modes in their own right and an integral part of the transport network. Realising the ambition will require sustained investment, long-term transport planning and changes in attitudes. In relation to long term planning guidance on [Local Cycling & Walking Infrastructure Plans \(LCWIP\)](#)⁸ was published by the Department for Transport also in April 2017.

3.4 LCWIPs are a new, strategic approach to identifying cycling and walking improvements required at the local level and enable a long-term approach to developing local cycling and walking networks. The guidance set out a recommended approach to planning cycling and walking networks as well as technical guidance, with a range of tools that can be used to help develop robust plans and schemes. The preparation of a LCWIP is not mandatory but, where these are being considered, the guidance identifies the key elements as:

⁶ <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

⁷ <https://www.gov.uk/government/publications/cycling-and-walking-investment-strategy>

⁸ <https://www.gov.uk/government/publications/local-cycling-and-walking-infrastructure-plans-technical-guidance-and-tools>

- A plan showing a network of preferred routes for walking and cycling and zones for further development of this network.
- A prioritised programme of infrastructure improvements for future investment both in the short and longer term.
- A report supporting the plan and planned improvements.

3.5 The Government has subsequently published further documents setting out its ambition and support for the provision of cycling and walking infrastructure. In July 2020, [Local Transport Note 1/20: Cycle Infrastructure Design](#)⁹ was published setting out comprehensive guidance and information on good practice in support of the Cycling & Walking Investment Strategy. Also in July 2020, [Gear Change: A Bold Vision for Cycling & Walking](#)¹⁰ was published with the aim of making England a walking and cycling nation setting out the actions required at all levels of government to make this vision a reality.

3.6 In March 2021, Government published a [National Bus Strategy for England](#) (“[Bus Back Better](#)”)¹¹ with the central aim of getting more people travelling by bus. This builds on the Government’s earlier commitment of £3 billion of additional funding to improve bus services outside London. Whilst there has been a long term decline in bus journeys the strategy highlights that investment in bus services is quicker and easier to implement when compared with other transport interventions, particularly new road and rail infrastructure, but can deliver benefits in terms of inclusion, easing congestion and improving air quality.

3.7 The strategy aims to make buses a practical and attractive alternative to the car for more people by making bus services:

- more frequent and more reliable with a stronger emphasis on the provision of bus priority measures and better traffic management;
- easier to understand and use through the provision of high-quality information for passengers and, in larger areas, moving towards “turn-up-and-go” frequencies;
- better co-ordinated and fully integrated with other transport provision;
- cheaper with simple multi-mode ticketing; and
- that keep running into the evenings and at weekends.

3.8 Franchising powers are available to Local Transport Authorities (LTA) only through secondary legislation. Whilst the strategy does not preclude LTA’s pursuing this route by the end of July 2021, all LTA’s should have committed to establishing Enhanced Partnerships across their entire areas. Enhanced Partnerships are statutory agreements under the 2017 Bus Services Act and require all bus operators to co-operate throughout the process. Further updated guidance on Enhanced Partnerships is to be published with the expectation that they will be delivered by April 2022. Only LTA’s and operators meeting the requirements of Enhanced Partnerships will have access to new sources of funding from the Government’s £3bn budget. Government is making £25m available in 2021/22 to support the development of Enhanced Partnerships and franchising.

3.9 By the end of October 2021, all LTA’s are expected to publish a Bus Service Improvement Plan detailing how they propose to use their powers to improve bus services.

⁹ <https://www.gov.uk/government/publications/cycle-infrastructure-design-ltn-120>

¹⁰ <https://www.gov.uk/government/publications/cycling-and-walking-plan-for-england>

¹¹ <https://www.gov.uk/government/publications/bus-back-better>

Details of how Bus Service Improvement Plans should be developed and what they should include are broadly set out in the strategy. A key intervention will be a significant increase in bus priority schemes which are seen to make services faster, more reliable and cheaper which together should make bus services more attractive to passengers. LTA's are expected to implement ambitious bus priority schemes as part of their Bus Service Improvement Plan. Statutory traffic management guidance will also be updated to make promoting bus reliability an integral part of a highway authorities Network Management Duty.

3.10 In lower density, often rural, areas support will be provided for new forms of public transport provision such as demand responsive transport using smaller vehicles. Such innovative services should also be considered for improving evening and Sunday services integrating with conventional buses during the day. Support will also be provided for the purchase of zero-emission buses and a date will be set for ending the sale of new diesel buses in the UK.

3.11 In July 2021, the Government published [Decarbonising Transport: A Better, Cleaner Britain](#)¹² which sets out the Government's commitments and actions needed to decarbonise the entire transport system in the UK. This plan follows on from Decarbonising Transport: Setting the Challenge, published in March 2020, which set out the scale of additional; reductions needed to deliver transport's contribution to net zero by 2050. This latest plan includes:

- the pathway to net zero transport in the UK;
- the wider benefits net zero transport can deliver; and
- the principles underpinning the approach to delivering net zero transport.

Regional

3.12 The [Thames Estuary 2050 Growth Commission](#)¹³ was established in March 2016 to develop an ambitious vision and delivery plan for north Kent, south Essex and east London. This Vision was published in June 2018 and, amongst other challenges, noted that access to affordable, high quality public transport or active travel links is more limited between and within cities and towns. The Commission believes that the delivery of infrastructure will support the delivery of homes and jobs and that transport hubs will provide opportunities for agglomeration and regeneration.

3.13 The Thames Estuary 2050 Growth Commission Vision is underpinned by the objectives of Productive, Connected, Thriving, Affordable, Adaptable and Deliverable Places. For the objective of Connected Places the Vision sees:

- improved connections between and within cities, towns, villages and industries for both people and goods;
- new and improved rail, bus, cycle and pedestrian links that will reduce car dependency and increase the use of an integrated public transport system; and
- new railway infrastructure, including the extension of the Elizabeth Line to Ebbsfleet, which will connect into the country's high speed network.

¹² <https://www.gov.uk/government/publications/transport-decarbonisation-plan>

¹³ <https://thamesestuary.org.uk/>

3.14 The Vision defines 5 Productive Places each having their own distinctive characteristics which collectively would deliver the aims and objectives of the Vision. The Inner Estuary area covers Thurrock, Dartford and Gravesham Councils along with the Ebbsfleet Development Corporation. The Commission's priorities for the area include:

- the extension of the Elizabeth Line (Crossrail) services from Abbey Wood to Ebbsfleet; and
- the creation of a Transport Innovation Zone that promotes clean technology in transportation, logistics and data systems unlocking housing opportunities with new means of public transport.

3.13 [Transport for South East \(TfSE\)](#)¹⁴ is the sub-national transport body for the South East of England comprising a partnership of the 16 county and unitary authorities in the South East with representatives from district and borough authorities, protected landscapes and national delivery agencies. Its purpose is to determine what investment is needed to transform the regions transport system and drive economic growth. A Transport Strategy for the South East was produced in 2020 which identified priorities for transport interventions aimed at realising a shared vision for a better connected, more prosperous and more sustainable South East. Amongst these priorities were:

- Interchanges – where these facilitate multi-modal journeys.
- Urban Transit Schemes – Bus Rapid Transit (BRT) or light-rail appropriate for the areas they serve.
- Technology – innovation in transport and digital technology.

3.14 TfSE is currently undertaking a series of geographical area studies based on the most important economic corridors in the region. The aim is to identify a shortlist of interventions to make life better for people, businesses and the environment. The outcomes of these studies will form the basis of a strategic investment plan to be delivered in partnership with Government and national bodies such as Network Rail and National Highways. The intention is for a draft strategic investment plan to be published in summer 2022 with the final version to be submitted to Government early in 2023.

3.15 As the Local Transport Authority, Kent County Council has a statutory duty to produce a Local Transport Plan for the administrative county of Kent. This strategy clearly identifies the transport priorities for the county as well as emphasising the investment required to support growth. The Local Transport Plan is informed by national and local policies and is delivered through supporting strategies, policies and action plans including Local Plans. The latest [Local Transport Plan 4: Delivering Growth Without Gridlock 2016-2031](#)¹⁵ was published by Kent County Council in July 2017.

3.16 Local Transport Plan 4 has the overriding ambition to:

"Deliver safe and efficient transport, ensuring that all Kent's communities and businesses benefit, the environment is enhanced and economic growth is supported."

This ambition will be realised through five overarching policies that targeted at delivering specific outcomes:

¹⁴ <https://transportforthesoutheast.org.uk/>

¹⁵ <https://www.kent.gov.uk/about-the-council/strategies-and-policies/transport-and-highways-policies/local-transport-plan>

1. Deliver resilient transport infrastructure and schemes that reduce congestion and improve journey time reliability to enable economic growth and appropriate development, meeting demand from a growing population.
2. Promote affordable, accessible and connected transport to enable access for all to jobs, education, health and other facilities.
3. Provide a safer road, footway and cycleway network to reduce the likelihood of casualties and encourage other transport providers to improve safety on their networks.
4. Deliver schemes to reduce the environmental footprint of transport and enhance the historic and natural environment.
5. Provide and promote active travel choice for all members of the community to encourage good health and wellbeing and implement measures to improve air quality.

3.17 The Local Transport Plan sets out a number of strategic priorities and local priorities for each District within Kent. The key strategic priorities relative to Dartford are listed below and the local priorities identified in the LTP are also listed in relation to these.

<u>LTP Strategic Priority</u>	<u>Dartford Local Priority</u>
Enabling Growth in Thames Estuary	A282 Junction 1A A2 Bean & Ebbsfleet Junction Improvements Infrastructure to support the proposed London Resort. A226 Relief Road at Swanscombe. River Darent Bridge Dartford Town Centre Improvements Improved walking and cycling infrastructure
New Lower Thames Crossing	Measures to Address the impact of Dartford Crossing traffic on Local Road Network
Rail Improvements	Crossrail Extension Swanscombe and Stone Crossing station replacements.
Bus Improvements	Expansion of Fastrack Public transport service improvements across the Borough

Dartford Local Plan Publication 2021

3.18 The Local Plan sets the local policy context for this Sustainable Transport Strategy. It has been a long-term aim of the Borough Council and its strategic partners in the North Kent area for an increased proportion of journeys to be made by more sustainable forms of transport. This approach has provided a catalyst for actions such as:

- Introduction of the Fastrack (bus rapid transit) network and services.
- Provision of new and improved cycle/walking schemes.
- Planned development locations primarily focused in areas with, or that have the potential for, good public transport access.
- Specific transport management and mitigation policies through the Dartford Development Management Plan 2017.

- £12m of funding obtained from Government to support the Dartford Town Centre transport and regeneration scheme which is currently underway and is being extended through the use of other local and s106 funding.
- Active support for strategic transport investment such as enhanced connectivity between the Elizabeth Line services at Abbey Wood and Ebbsfleet.
- Collaboration with the Ebbsfleet Development Corporation, highway partners and neighbouring authorities to identify solutions for congestion hotspots.
- Introduction of a demand responsive bus service.

3.19 The Local Plan continues a sustainable approach to development with strategic policies, spatial policies (for Central Dartford and Ebbsfleet and Swanscombe) and Development Management Policies that require development to include measures to encourage sustainable travel and reduce the level of travel by car. This policy approach is supported by a Sustainability Appraisal of the Local Plan that found a number of the policies had the strong potential to achieve the objective to *"reduce the need to travel and encourage sustainable and active alternatives to motorised vehicles to reduce congestion"*. The Sustainability Appraisal concluded that overall the Local Plan is expected to reduce the need to travel by car by supporting:

- the enhancement of active travel links;
- the provision of new infrastructure;
- focusing development in key locations; and
- locating employment in easy to access areas.

3.20 There are extensive references to sustainable travel throughout the policies and supporting text in the Local Plan. **Appendix B** sets out the specific sustainable transport references and measures together with the practical actions associated with meeting these policy requirements. Key policies within the Local Plan that have a strong emphasis on the relationship between development and sustainable travel are:

- S2 – Infrastructure Planning
- D1 – Central Dartford Strategy
- E1 – Ebbsfleet Garden City Strategy
- M16 – Travel Management
- M17 – Active Travel, Access & Parking

Sustainable travel also features in Local Plan policies that deal with the location of development including policies S1, S3, D7, E3-E6, M9, M19, M21 and M22. These are also picked up in **Appendix B**.

3.21 Sustainable travel requirements within the Local Plan policies cover:

- the need to address any severe impacts on congestion, air quality pedestrian and cycle safety;
- development to be designed with active travel routes providing links to community services whether these are within or outside the site and similarly links to gain access to Fastrack, other bus services and taxis;

- the promotion of walking and cycling routes that are safe and convenient through the enhancement of existing routes or the provision of new routes linked to the wider networks;
- the safeguarding of land for strategic transport infrastructure, such as the rail connectivity between Abbey Wood and Ebbsfleet, and for improvements to the Green Grid network especially along the Thames and Darent rivers;
- support for enhanced and new public transport infrastructure including river travel where appropriate; and
- the requirement for development that has significant adverse transport impacts to adopt Travel Plans as part of its mitigation with meaningful targets and objectives and on-going monitoring and review.

3.22 Overall the Local Plan provides a suite of policy provisions to ensure that sustainable travel measures and/or sustainable transport infrastructure are incorporated into most development types in Dartford. Policy particularly focuses on the additional opportunities that are likely to occur at large scale developments and in the priority regeneration areas. Local Plan requirements will support planned and future strategic transport improvements brought forward by highway authorities, or other key stakeholders, as well as ensuring complimentary on-site provision that will create an extensive and integrated network of sustainable travel routes and services over time. This comprehensive policy approach provides a sound base for achieving the aims and objectives set out in this Sustainable Transport Strategy.

Ebbsfleet Development Corporation

3.23 An important partner to the Council in the delivery of development and sustainable transport is the Ebbsfleet Development Corporation (EDC) tasked with delivering the Ebbsfleet Garden City. The main document produced by the EDC setting out the vision for the Ebbsfleet Garden Centre is the Ebbsfleet Implementation Framework 2017 which, as one of six delivery themes, includes Connected People & Places. Under this delivery theme the EDC has set two objectives:

"To create and improve safe, integrated and accessible transport systems with walking, cycling and public transport designed to be the most attractive form of transport."

"To promote legible networks across Ebbsfleet, from the river Thames to the Green Belt and from Dartford to Gravesend in order to help people connect with each other and between the new and existing communities."

3.24 The Ebbsfleet Implementation Framework includes the key performance indicator of % modal shift towards sustainable forms of transport or movement within the Garden City and identifies the following ambition for short and longer distance workplace commuting patterns.

	Active Travel Modes	Public Transport	Car
Shorter distance local trips (under 4 miles)	55%	30%	15%
Longer distance commuting (over 4 miles)	25%	40%	35%

3.25 Since the publication of the Ebbsfleet Implementation Framework, the EDC has produced a number of coherent strategies for the future development of the Garden City. In relation to sustainable transport the key document produced has been [Connecting People and Places: A Sustainable Travel Strategy to Balance Mobility in Ebbsfleet 2020](#)¹⁶. This identifies a range of safe, convenient and affordable travel options for local journeys and sets out key projects and associated design guidance to deliver its vision. The vision is identified as:

- Enhancing public transport, particularly improvements to Fastrack services and accessibility, including upgrades to existing infrastructure.
- Developing a regional transport interchange within Ebbsfleet Central around Ebbsfleet station.
- Intelligent mobility management to create an integrated travel system utilising new technological opportunities, autonomous vehicles, sensors to support smart mobility and integrated ticketing.
- Active Travel Plan supporting a mix of new networks, storage and communication to incentivise walking and cycling.
- Creating quality streets and public spaces through design to balance streets and public realm that encourages walking, cycling and travel by public transport.

3.26 The EDC commissioned Space Syntax to carry out an early assessment of active travel which provided guidance on how the level of mode share could be achieved within the Garden City. The findings from this report have fed into EDC's Sustainable Travel Strategy. Going forward the EDC's work on the master planning for Ebbsfleet Central, guided by Local Plan policy, will result in a transport strategy for the area reflecting the ambition for high quality public transport and active travel provision to support modal shift towards more sustainable forms of transport.

¹⁶ <https://www.designforebbsfleet-sustainabletravel.org/>

4. Travel Behaviour

4.1 The impact of Covid throughout 2020 and into the first half of 2021 has resulted in dramatic changes to travel behaviour with the biggest being the change in the level of home working. As the country emerges from Covid restrictions it will be some time before the impacts on travel behaviour are known particularly any lasting changes or any return to pre-Covid travel patterns. The Department for Transport has published early evidence of the impacts of Covid on travel behaviour but whether these changes remain will become more evident in the future through further studies.

4.2 Prior to Covid there were a number of reports and studies carried out that pointed to the potential changes in travel behaviour that can be achieved through the adoption of more sustainable transport measures and how travel behaviour may change over the coming years. There are a number of new, and potentially strong, drivers of change that are likely to influence travel behaviour in the future. These include:

- Recent and planned Government policy regarding its response to climate change including new funding to assist a step change in sustainable travel.
- Influence of new technological advances across all areas of society.
- Renewed awareness of the benefits of Active Travel.
- Increased public awareness of impacts of conventional vehicles on air quality and the environment in general.

4.3 The Chartered Institution of Highways & Transportation (CIHT) published [Planning for Walking](#) in April 2015 and [Planning for Cycling](#)¹⁷ in October 2014. These documents revealed that:

- Across Britain about 80% of journeys shorter than 1 mile are made wholly on foot. Something that has changed little in 30 years.
- For journeys that are 1-2 miles long, 26% are made on foot, more than by bus.
- Beyond 2 miles, journeys on foot are few and are outnumbered by bus journeys.
- Approximately 15% of people, most of them elderly, have an impairment that affects their mobility.
- Only 2% of all trips across the UK are made by bicycle.
- There are significant variations in the level of cycling across towns in the UK reflecting differences in topography, town size, urban function, demography, street layout, congestion and the availability of public transport.

The DfT publication *Gear Change: A Bold Vision for Cycling & Walking* previously referred to states that:

- More people are walking further and more often with 27% of all trips made by walking covering 3% of all distance travelled.
- The average distance cycled has been increasing since 2002 but the overall proportion of cycle trips remains at 2%.

4.4. In 2004, three towns (Darlington, Peterborough, and Worcester) received funding from the Department for Transport (DfT) for the implementation of large scale programmes

¹⁷ <https://www.ciht.org.uk/knowledge-resource-centre/resources/streets-and-transport-in-the-urban-environment/>

over a 5-year period as part of the “Sustainable Travel Towns (STT)” demonstration project. An evaluation by the DfT at the end of the STT project concluded that it was successful in reducing car travel and increasing the use of other more sustainable modes. The Transport Research Laboratory (TRL) was commissioned by the DfT to ascertain whether the short-medium term impacts were sustained in the longer term. In July 2016, TRL published its final report, [Sustainable Travel Towns: An Evaluation of the Longer Term Impacts](#)¹⁸, which concluded that:

- The outcomes from sustainable travel behaviour programmes do not decay rapidly where such activities lead to further related activities and are supported by local infrastructure and service improvements.
- The benefits of such initiatives may be long-lived particularly where there is ongoing support.
- Increases in walking and cycling levels can be largely sustained and potentially further increased given further activities.
- Patronage levels on buses are unlikely to remain high if there are service cuts and fare increases regardless of any prior information and marketing activity.
- Measures can potentially help to sustain traffic levels even where there has been background growth in development.

4.5 Sport England run two surveys. Active Lives Adults is published twice a year, having replaced the Active People Survey, and Active Lives Children & Young People which is published annually. From these surveys Sport England has summarised the following findings:

- Over the last three years (up to 2019/20) there has been a 3.7% rise in activity levels amongst disable people and people with long-term health conditions with more than 400,000 additional people classed as active.
- Activity levels amongst people aged 55 and over has risen by over 1.3 million over the last three years.
- 61% of respondents to the 2018/19 Adult Survey confirmed that they had taken part in “walking” at least twice in the last 28 days – an increase over the previous year.
- 17% of respondents to the 2018/19 Adult Survey confirmed they had taken part in “cycling” – no change from the previous year.
- It was uncertain, however, if respondents were referring to walking/cycling for transit or for leisure or both.

4.6 The Commission on Travel Demand is an independent group assembled as part of the Research Council UK DEMAND Centre. It was established to bring together an understanding of how travel demand is changing and may change in the future. In May 2018, the Commission published [All Change: The Future of Travel Demand and the Implications for Policy & Planning](#)¹⁹. This document was based on an evidence gathering exercise through written submissions, presentations and discussions in response to a call for evidence by the Commission.

¹⁸ <https://www.gov.uk/government/publications/sustainable-travel-towns-evaluation-of-the-longer-term-impacts>

¹⁹ <http://www.demand.ac.uk/commission-on-travel-demand/>

4.7 The relationship between how much, how often, when and how we travel and the activities we take part in has changed and continues to do so. From the evidence gathered the Commission's report concludes that:

- The huge benefits that the expansion of car ownership and its rise have unlocked have also been accompanied by negative impacts such as congestion, poor air quality, a rise in climate change emissions and a decline in active travel contributing to obesity.
- Travel is substantially less today, per head of population, than it was 10 or 20 years ago with 16% fewer trips than in 1996, 10% fewer miles travelled than in 2002 and 22 hours less travelling spent than 10 years ago.
- Whilst avoiding anything that might be seen as starting a "war on the motorist", people have been travelling less often and less far by car, less frequently in the peaks and younger people have been turning away from car ownership.
- The above trends have been ongoing but there has been little innovation in planning seeking to explain too much of the travel patterns through the changes that can be made to the transport system and failing to recognise much bigger societal changes. Some cities have seized on the trends and proactively planned to grow whilst reducing or holding steady car traffic.
- The demand for travel matters for three important reasons:
 - understanding how society works and how transport policies should best be designed to influence this;
 - policy priorities can be crucial for things such as the health and well-being of people today and in the future;
 - transport planners can be responsible for the effective spending and investment in the transport system.
- Demand should be at the heart of debates about the role of transport in society that should be shaped by policy. Future demand policy should be shaped by asking *"What sort of place do we want to live in and what sort of actions need to be taken to bring that about?"*

4.8 The National Travel Survey is a household survey of personal travel by residents of England travelling within Great Britain. Data collected via interviews and a 7-day travel diary enables an analysis of patterns and trends. Headline data from the National Travel Survey: England 2019 are:

- The average number of annual trips taken by people in England (953) during 2019 is comparable to the number of trips in 1972/73 and 11% lower than 2002 (1,074).
- The average of 6,500 miles travelled in 2019 was 10% lower than the 7,193 mile recorded in 2002 but the average length of a car trip remained unchanged at 8.4 miles.
- Average trips by cycle in 2019 (16) is down by 10% compared with 2002 but the averaged distance (54 miles) has increased by 41% compared with 2002 (39 miles).
- Walking trips saw a slight fall from 2018 to 2019 to 250 trips per person per year but this remains an increase compared to the lowest levels of walking recently

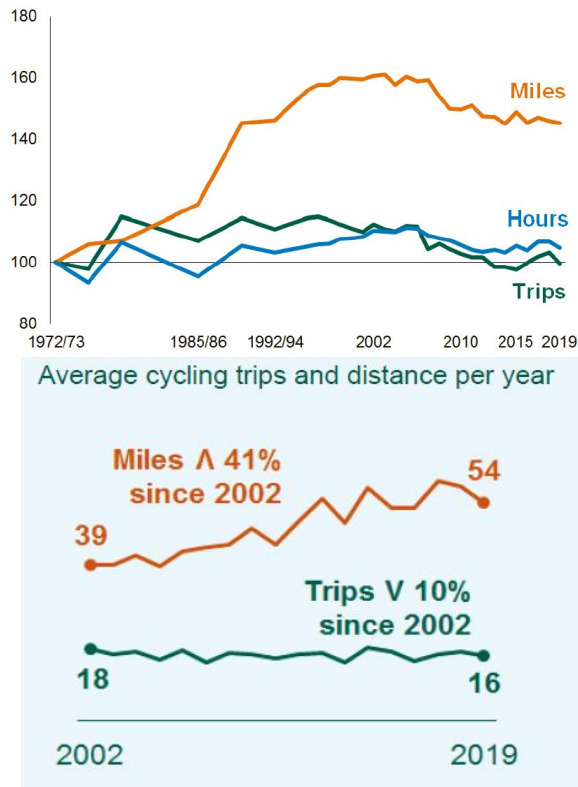


Figure 6: Trends in Cycle Trips (NTS)

recorded in 2014. In the last 5 years, people in England made 14% more walking trips and spent 12% longer walking per year.

Further headline data on car, walking, cycling bus and rail travel in England from the National Travel Surveys between 2014 and 2019 are shown in Table 1 of Appendix A.

4.9 TRICS Consortium Ltd is a company wholly owned by Dorset Council, Hampshire County Council, East Sussex County Council, Kent County Council, Surrey County Council and West Sussex County Council. TRICS is a system of trip generation analysis for the UK and Ireland first launched in 1989 and, through continuous investment and development, expanded into a comprehensive database of traffic and multi-modal transport surveys covering

a wide range of development types. This database is widely used in the transport assessments for development.

4.10 In February 2021, the TRICS Consortium issued a [Guidance Note on the Practical Implementation of the Decide & Provide Approach](http://www.trics.org/decideandprovideguidance.html)²⁰. This guidance follows a previous TRICS guidance note on changes in travel behaviour issued in August 2019 that reported trends over the last three decades and the key implications this would have on the use of TRICS database today. The Decide & Provide guidance advocates a change to the existing forecast-led approach (Predict & Provide) to one that is more vision-led. The TRICS Consortium acknowledges that this new approach is at the earliest stages of application and that new working practices will emerge requiring an update of the guidance on a regular basis.

4.11 At the heart of the Decide & Provide approach is deciding on a preferred future for development and then providing the path best suited to achieving this. In the transport assessment process this can be represented by setting out a range of the potential trip generation outcomes that could take place within a proposed development. The TRICS database can be used to identify changing trends in travel behaviour at the local level and enables different levels of sustainable transport provision to be taken into account. The Decide & Provide approach aims to improve the resilience of planning decisions and provides for more positive and integrated transport and land use. It also provides the opportunity for greater consideration of the role that active travel modes and public

²⁰ <http://www.trics.org/decideandprovideguidance.html>

transport can make up-front rather than a more cursory residual treatment as may have been the case historically.

5. Sustainable Travel Framework

5.1 This core section of the Sustainable Transport Strategy provides an overview of the sustainable transport projects and initiatives that are currently being pursued within the Borough and how further projects would be planned and delivered in the future. The projects are set out in the form a broad framework building on strategic transport requirements outlined in the preceding sections. The Framework has been divided into the following three categories:

Strategic/Area Focused Interventions

Public Transport Measures

Active Travel Measures

5.2 There are several actions and projects that are in the process of being delivered, in the planning stages or proceeding through feasibility/option stages. The Framework also identifies where interventions will be the subject of further strategies or plans focused on the delivery of projects for specific transport modes. The delivery of projects and interventions identified in this Framework relies on a collaborative approach with a range of partners such as the EDC, National Highways, Kent Highways & Transportation, and other transport providers. Where delivery is through a partnership then the lead organisation is identified. Where delivery would be through a separate programme of works, or implementation strategy/plan, of the lead organisation this is identified where known.

5.3 Whilst there remain some locations on the highway network where traffic congestion needs to be tackled this Framework is less focused on creating additional capacity and more related to improving the resilience of the network and issues affecting health and wellbeing such as air quality and safety. Collectively the measures identified within this Framework focus on achieving modal shift for local journeys away from the private car to more sustainable forms of transport. A transport assessment of the planned development in the Local Plan has considered the impact of a 15% and 30% modal shift for local journeys from new development. These were arrived at after considering the existing mode share of journey to work trips from the 2001 Census. Whilst these are not adopted targets they reflect an achievable to ambitious range for modal shift across the Borough. The Local Plan Transport Assessment has defined a "local journey" as one which has an origin and destination within the Borough.

5.4 Within each of the categories mentioned above, the Framework provides a summary of the overall requirement; where work is being focused; an outline of the work/actions being undertaken and an indication of the lead organisation(s) involved in the delivery. Much of the work/actions and delivery are still in the process of being identified or developed and in this respect the Framework should be considered as a "live document" that will evolve as time moves forward. Keeping the Framework up to date as projects evolve will be the main aspect of a regular review of the Sustainable Transport Programme.

Strategic/Area Focused Interventions

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
<p>A Identify congestion points on the Strategic and Local Road Networks that have a negative impact on transport movements through the Borough and investigate and delivery the most appropriate solutions to alleviate the issues.</p>	<p>1 Local Plan Transport Assessment</p>	<p>The Council commissioned consultants to undertake transport modelling to assess the impacts of planned development set out in the New Local Plan for Dartford. In commissioning this work the Council sought to:</p> <ul style="list-style-type: none"> ▪ ensure that the Local Plan policies were informed by robust evidence, ▪ identify those locations on both the Strategic and Local Road Networks where the impacts of development would have a detrimental effect, ▪ test and identify the most appropriate mitigation measures that would reduce the impacts caused by development ▪ test the impact that modal shift might have as a mitigation measure, and ▪ support the development of a local sustainable transport strategy. <p>Both National Highways, as the strategic highway authority, and Kent County Council, as the local transport authority, were involved at all stages of this transport modelling that has involved:</p> <p>Stage 1 – Base Year Model</p> <p>Stage 2 – Forecast Year Baseline Model</p> <p>Stage 3 – Local Plan Option Testing</p> <p>Stage 4 – Identification of Potential Mitigation</p> <p>Following completion of the transport assessment of the Local Plan work is continuing on three key areas:</p> <ul style="list-style-type: none"> i.) A Sustainable Transport Strategy for Dartford. ii.) Separate strategies for specific modes of transport. iii.) Further investigation of specific locations on the Strategic and Local Road Network, with the relevant authorities, where potential issues have been identified. 	<p><i>Dartford BC Consultants</i></p> <p><i>Completion by November 2021</i></p>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
	2 A282 Corridor (Tunnel Approach/M25)	<p>The Department for Transport's Road Investment Strategy 2014 identified the A282 Junction 1a of the M25 as operating over capacity during peak hours. In 2016/17, consultants were appointed to review the operational performance of this junction and test the feasibility of options to improve traffic movements and reduce congestion. At the time consideration was given to the segregation of local traffic travelling across the junction on the A206 and traffic requiring access to and egress from the A282.</p> <p>In the intervening years applications for further development along the A206 corridor have come forward, particularly in the Littlebrook area, which has potential impacts on Junction 1a. The transport assessment carried out for the Local Plan has also indicated that there will be issues regarding the operation of this junction.</p> <p>A Working Group has been established by the Borough Council with representatives from National Highways and Kent County Council together with other stakeholders. This group is tasked with establishing a programme of viable measures that will provide medium and long-term solutions to the traffic problems experienced at Junction 1a.</p> <p>The Working Group has recognised that there is a wider Area of Influence that affects traffic movements through this junction covering planned development and the interaction with adjacent junctions to the south. A review of previous studies related to Junction 1a has been carried out and a further feasibility study is in the process of being commissioned.</p> <p>Work will continue to identify a programme of viable measures for implementation with initial costs and timescales for delivery. An important aspect of this programme will be to determine how viable schemes are to be funded and delivered.</p>	<p><i>Dartford BC</i> <i>National Highways</i> <i>Kent CC</i></p> <p><i>HE Route Improvement Strategies:</i> <i>RIS2 2020-2025</i> <i>RIS3 2025-2030</i></p>
	3 A2 Corridor	National Highways commenced major improvements to the A2 Bean and Ebbsfleet junctions in August 2020, with initial	<i>National Highways</i>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		<p>preparation works, and the main construction activities following in the Autumn at Bean Junction. These improvements had been identified through the former Kent Thameside Strategic Transport Improvements Programme (STIP) which contained a number of major highway works across Dartford and Gravesham specifically targeted towards unlocking major development sites across the area.</p> <p>The A2 Bean & Ebbsfleet improvements have been funded by National Highways with significant contributions made by the Ebbsfleet Development Corporation and the Eastern Quarry development site.</p> <p>No further improvements are currently planned.</p>	<p><i>Completion Spring 2022</i></p>
	4 Local Highway Improvements	<p>a) Assessment of Development</p> <p>The Local Highway Authority will be consulted on relevant applications for development for them to comment on the transport implications and where appropriate the Council will work with them to identify the mitigation that may be required to offset any adverse impacts. The Council will seek to involve the local highway authority on early involvement with a developer through any pre-application discussions, whilst recognising that KCC has its own separate pre-application process.</p> <p>Highway improvements required to make the development acceptable in terms of access and on-site transport provision will be secured through conditions on the planning or legal agreements with the developer providing direct delivery. Any off-site transport provisions required, including sustainable and active travel measures, to mitigate the impact of the development will be delivered either through conditions or obligations on the developer or through developer contributions.</p>	<p><i>Dartford BC Kent CC</i></p> <p><i>Ongoing</i></p>
		b) Assessment of Priorities & Delivery	<i>Kent CC Local Transport Plan &</i>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		<p>The Local Plan Transport Assessment (see above) identified a number of locations that required further consideration as to the nature of the problems that were forecast to occur and the scope of potential improvements. This further work will be carried out with the Local Highway Authority with the aim of:</p> <ul style="list-style-type: none"> a) Identifying those locations that have the highest priority. An assessment framework would need to be agreed with the local highway authority depending on how these are to be delivered. b) Determining the most appropriate course for delivery of any improvements required. The scope for delivery could include developers, local authority programmes or directly by the Council. c) Determining the capital funding required and identifying potential sources. Funding sources could include developer contributions, capital funding by the local highway authority, grant funding from Government initiatives or any combination of these. 	<p><i>Capital Programme</i></p> <p><i>Dartford's IDP.</i></p> <p><i>Completion 2021/22</i></p> <p><i>Completion 2022/23</i></p>
B Support regeneration and growth across the Borough (as set out in the Local Plan) focusing on development that is well located to sustainable transport.	1 Dartford Town Centre	<p>a) Dartford Town Centre Project</p> <p>The Council has developed a project to improve the transport infrastructure (pedestrian, cycle, public transport and traffic junctions) and public realm in the town centre and reduce the severance effect of the ring road by improving pedestrian and cycle access at key junctions and across the main roads. By enhancing the environment for users of the town centre and improving access into the town centre the project aims to encourage investment in development that will deliver the transformation of the town centre envisaged by the Local Plan. The Council was awarded Government funding towards the project which commenced in August 2018. The project is being taken forward in phases as shown in Figure 7 of Appendix A.</p>	<i>Dartford BC</i>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		<p>Phase 1, involving extensive public realm enhancements to Market Street/Market Place, which has provided a reduction in road space given over to vehicles and improvement of the pedestrian environment and routes to the High Street, cycle parking, the opening of a new pedestrian entrance to Acacia Hall where parking has been relocated, the creation of a new vehicular access to the Acacia car park to minimise vehicles having to travel through the town centre on the one-way gyratory and relocation of bus stops to Home Gardens has been completed.</p> <p>Phase 1a, involving extensive public realm enhancement to the High Street and improvement to the pedestrian environment, including safety barriers, commenced in May 2021.</p> <p>A contract for Phase 2, involving the Lowfield Street/Instone Road and Highfield Road/West Hill junctions has been awarded and is about to start soon. Works will involve the removal of an existing subway and improved pedestrian and cycle crossings at both junctions as well as upgrading the traffic signals. These junctions provide the southern and western gateways to the town centre.</p> <p>Phase 3, involving public realm and active travel enhancements to Hythe Street is in the final stages of design with the outline design completed and detailed design being completed prior to tender. Consideration is being given to extending these works to include Spital Street</p> <p>Phase 4, involving the enhancement of the Westgate Road/Hythe Street/Home Gardens and Overy Street/Home Gardens/East Hill junctions are currently at the concept stage. These provide the northern and eastern gateways to the town centre with important connections to Dartford station, the river Darent and major development sites to the north of the railway line. Improvements are required to enable better pedestrian and cycle crossing of the ring road and also to modernise the traffic signals to improve traffic</p>	<p><i>Completed</i></p> <p><i>Completion 2021/22</i></p> <p><i>Completion 2022/23</i></p> <p><i>Completion 2023/24</i></p>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		<p>flow and to form part of the emerging urban traffic management system.</p> <p>b) Wayfinding</p> <p>An important aspect of work within the town centre is the ability of pedestrians and cyclists having a general understanding of where to find places and being able to navigate their way both within the town centre itself and on routes into and out-off the town centre.</p> <p>To this effect the Council installed a series of “totems” and finger posts in and around the town centre in c2016. In the intervening years some new developments have also incorporated signage to provide directions for their residents/customers.</p> <p>With further development taking place in and around the town centre and, to complement the work taking place with the Dartford TC Project (see above), there is an opportunity to enhance this existing wayfinding that will take account of emerging new locations and set a common template for future installations.</p> <p>Consultants have been appointed to develop a Wayfinding Strategy for the town centre and the first stage of this (review current wayfinding, survey area and suggest options) has been completed.</p> <p>c) Parking</p> <p>The Council adopted Parking Standards as a Supplementary Planning Document in July 2012. In line with national guidance the SPD identifies parking standards for a range of new development, based on location, accepting that major developments with local facilities and public transport may be able to develop their own parking requirements. The Council works with developers to achieve lower levels of car usage on development sites close to public transport nodes, where there is the potential to do so through a range of initiatives, and monitor and manage commitments in order to reduce reliance on the private car.</p>	

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		<p>Parking has more recently been identified as an issue related to commuter parking and development coming forward in and around Dartford Town Centre. Uncontrolled parking can inhibit the delivery of active travel measures and/or measures to improve public transport as well as being a major source of irritation to residents and business owners and free parking for commuters using the station can add to Traffic congestion in the town centre.</p> <p>To further understand the issues and determine the most appropriate course of action the following steps are planned:</p> <ul style="list-style-type: none"> ▪ acquire the most recent information on car ownership data; ▪ determine the extent of parking issues across the town centre based on an initial catchment area of 10 minute walk from Dartford Station and the High Street; ▪ undertake a parking study including internal and external workshops, identifying stakeholders and carrying out consultation and survey work; and ▪ identify the potential for parking controls and implement where there is agreement to do so. 	
	2 Ebbsfleet Garden City	<p>a) Investment Programme</p> <p>The EDC has a Capital Investment Programme used to deliver infrastructure needed to support the planned development within the Garden City. This can and has been used for transport infrastructure the main examples being support to National Highways for the delivery of the A2 Bean & Ebbsfleet junction improvements and the delivery of the Springhead Bridge.</p> <p>The programme has also being used to support the delivery of more sustainable transport measures with investment in a Green Corridors programme (see later) and softer measures such as the "Better Points" aimed at encouraging residents towards a more active lifestyle.</p>	<i>Ebbsfleet DC</i>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		<p>The Investment Programme complements the transport infrastructure being delivered by developers through planning obligations which the EDC, as the local planning authority, enforce. Funding can be used to enhance schemes providing added value, cover gaps in transport provision ensuring that a cohesive network is provided, connecting the Garden City to the existing wider community and intervene in the event of market failure.</p> <p>b) Fastrack</p> <p>The Garden City is being delivered on the principal of Public Transport Orientated Development with Fastrack services at its core. The major development sites making up the Garden City are being delivered around Fastrack routes providing residents with easy access to high quality, frequent and reliable bus services linking the key destinations both within the Garden City and across Dartford and Gravesham. Most of the Fastrack routes through the Garden City are segregated with priority given to Fastrack services at junctions. A tunnel is under construction enabling Fastrack to travel directly between the transport hub at Bluewater shopping centre and the Garden City.</p> <p>c) Active Travel</p> <p>Development within the Garden City, as across Dartford, is being delivered with comprehensive active travel networks within each site linked to wider networks across the Borough. These provide the essential links to facilities and services used on a day-to-day basis and access to leisure pursuits. Wherever feasible safe traffic free walking routes and segregated cycle routes are provided.</p> <p>Further measures are also being delivered to encourage active travel through the implementation of Active Travel Action Plan produced by the EDC in 2018 and co-developed with key stakeholders including Dartford BC. Active travel is being</p>	

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		<p>encouraged and facilitated and using as a means to connect with public transport thereby reducing the need for car journeys.</p> <p>d) Wayfinding</p> <p>The EDC commissioned an Initial Wayfinding Strategy for the Garden City which considers user journeys (pedestrian and cycle), route network, signage and locations, use of new technologies and cost sustainability.</p> <p>The objectives of the strategy include:</p> <ul style="list-style-type: none"> ▪ Encouraging exploration of the Garden City and its new greenspaces by sustainable transport modes, including areas adjacent to but outside its boundaries. ▪ Supporting achievement of the EDC's target for mode shift. <p>The strategy indicates that there is the potential for around 500 signs across the Garden City and surrounding area. An update on the progress of implementing this strategy is awaited.</p>	
C Promote sustainable transport solutions to mitigate the impacts of development.	1 Transport Statements /Assessments	<p>All developments that generate significant levels of traffic should be supported by a transport statement/assessment so that the likely impact of the proposals can be assessed. Transport statements/assessments should cover:</p> <ul style="list-style-type: none"> ▪ any significant impacts on the transport network in terms of capacity or congestion or on highway safety and how these are to be mitigated; ▪ opportunities to incorporate sustainable transport modes including access to high quality public transport; ▪ safe and suitable access to the development for all users with the needs of people with disabilities and reduced mobility addressed in relation to all modes of transport; ▪ the creation of safe, secure and attractive networks for pedestrians and cyclists, both within the scheme and with neighbouring areas; 	<p><i>Dartford BC</i> <i>Ebbsfleet DC</i></p> <p><i>Ongoing</i></p>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		<ul style="list-style-type: none"> the efficient delivery of goods and access by service and emergency vehicles; the infrastructure to be provided for electric vehicles and other ultra-low emission vehicles; and depending on the scale of development, developers should provide a range of measures to improve bus services (conventional, Bus Rapid Transit and/or demand responsive transport) and actively promote non-private car options (e.g. car clubs, bike hire schemes). <p>This approach will be pursued through Local Plan Policies M16.1 and M17.2 in conjunction with the highway authorities.</p>	
	2 Travel Plans/Monitor & Manage	<p>A Travel Plan is a long-term strategy for development sites to manage the transport needs of a site through a package of measures. The components of a Travel Plan will be unique to each site but should generally cover:</p> <ul style="list-style-type: none"> Background information regarding the site itself, location, number of people, measures already in place, current share of travel modes and the reasons for producing the plan. Scope of the travel elements to be addressed by the plan. Objectives and targets to be achieved. Measures and actions proposed to achieve the objectives/targets. Review and monitoring at regular/agreed intervals including the need for surveys. <p>A greater focus will now be placed on the Monitoring and Management of travel plans to ensure that they have a binding effect on the mitigation of the transport impacts of development and encourage greater use of more sustainable forms of transport. The inclusion of contingency funding, reserved for the</p>	<p><i>Kent CC</i> <i>Dartford BC</i> <i>Ebbsfleet DC</i></p> <p><i>Ongoing</i></p>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		<p>implementation of additional measures should targets not be met, should be considered.</p> <p>A recent example is the Littlebrook development area where in perpetuity vehicle caps during peak hours have been used with penalties for exceedances at an increasing financial rate whilst free-to-use shuttle buses with a minimum capacity are to be provided, calling at two public transport interchanges, synchronised with the shift patterns of employees.</p>	
<p>D Identify corridors where a combination of measures are both feasible and deliverable giving an impetus to sustainable transport provision with widespread benefits to existing and new communities.</p>	<p>1 A226 London Road Sustainable Transport Corridor.</p>	<p>The A226 London Road between its junction with Watling Street in the west and St Clements Way in the east is around 3.17km (1.97miles). The A226 is one of the principal routes for local traffic travelling east-west through the Borough and this section passes through both residential and employment areas together with leisure facilities such as Stone Recreation Ground. A new secondary school is under construction and is due to open in 2022 with a new primary school also planned.</p> <p>Due to the range of current land uses along this corridor and the general good width available there is scope to provide improvements to active travel modes and public transport provision. Specifically:</p> <ul style="list-style-type: none"> ▪ Off-road pedestrian/cycle routes. ▪ Bus priority measures. ▪ Relocation/improvement of pedestrian/cycle crossings. ▪ Rationalisation of parking. ▪ Environmental enhancements. <p>Improvement of more sustainable transport modes along this corridor could be supported by further residential development at St James Lane Pit along with the possibility of some regeneration of existing sites along the corridor.</p> <p>The improvements would support the opening up of existing open space to the public, link Green Corridors either side of the A226,</p>	<p><i>Dartford BC</i> <i>Kent CC</i> <i>Stone PC</i></p>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		<p>reduce the dominance of traffic and provide better connections between residential, employment, education, leisure and green spaces.</p> <p>Stone Parish Council has set out plans for the development of its area up to 2035 through a Neighbourhood Plan. This aims to provide communities with better open space with green corridors connecting primary schools, the new secondary school and the open spaces of Stone Recreation Ground, Swanscombe Heritage Park and Swanscombe/Botany Marshes.</p> <p>An audit of the A226, building on the work done by Stone Parish Council, would identify the scope for improvements along this corridor with the potential to identify projects that could be part funded by further development</p>	<p><i>Completion by 2023</i></p>
<p>E Confirm options for new rail capacity/services in the sub-region of the North Kent Line through the LB Bexley to Gravesend.</p>	<p>1 Abbey Wood to Ebbsfleet (AW2E)²¹</p>	<p>A partnership of local authorities and key stakeholders is actively working to prepare an outline business case to submit to Government with regard the improvement of the capacity of public transport provision along a corridor between Abbey Wood in Bexley and Ebbsfleet. The existing Elizabeth Line (formerly Crossrail) terminates at Abbey Wood and the current work has taken up the long-standing ambition to extend the Elizabeth line east to Gravesend.</p> <p>The Thames Estuary 2050 Growth Commission (see Regional Policy Context, Chapter 3) identified this project as a key objective and Government funding has been provided to the partnership to support the development of a business case. Both rail and other alternative transport options are to be considered underpinned by an expectation of ambitious housing growth along the corridor.</p> <p>A wide range of options were initially identified forming an Initial Long List in 2020 and, through a series of work stages and</p>	<p><i>C2E Partnership</i></p> <p><i>Completed April 2021</i></p>

²¹ For Abbey Wood to Ebbsfleet project - <https://www.abbeywood2ebbsfleet.com/>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		<p>consultations, these were reduced to a smaller number for more detailed appraisal and consultation. Further assessment has reduced the options to a short list of three which have been subjected to a further round of consultation. Details of the process and the final three short listed options can be found on the AW2E website.</p> <p>A Strategic Outline Business Case is currently being developed focused on the short listed options with the aim of submitting this to Government later in 2021.</p> <p>The objectives of this project are to:</p> <ul style="list-style-type: none"> ▪ provide an uplift in the quality and capacity of public transport' ▪ improve service frequency and journey times, ▪ improve the reliability of services, ▪ reduce the over-crowding currently experienced, and ▪ incentives modal shift from the private car to public transport. <p>The extension of the Elizabeth Line services from Abbey Wood is a long-term project that requires Government approval.</p>	<p><i>Consultation closed 10 Sept 21</i></p> <p><i>Autumn 2021</i></p> <p><i>Delivery unlikely before 2035</i></p>

Public Transport Interventions

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
F Achieve expansion of the Fastrack network, improve the reliability of journey times and enhance the service offered to passengers.	1 Network Development	<p>Fastrack Bus Rapid Transit (BRT) currently operates two services (see Figure 2). Route A commenced operation of in June 2007 and Route B started earlier in March 2006. The current franchises for the operation of both these routes will come to an end in 2022 and this provides Kent CC with the opportunity to review network, fleet and operating arrangements. The Bus Strategy for England encourages Local Transport Authorities to enter into Enhanced Partnerships rather than franchising and this needs to be evaluated in terms of the benefits this may bring to Fastrack.</p> <p>As major development sites have, and still, come forward the Fastrack network will look to expand with parts of the existing routes being diverted where new infrastructure has been delivered. This is the case with Route B which has recently diverted through Springhead Park with the completion of Springhead Bridge. The current Future network Fastrack is shown in Figure 8 in Appendix A. Key elements of the expansion of Fastrack include:</p> <ul style="list-style-type: none"> ▪ The construction of tunnels under the B255 linking Bluewater shopping centre to the Whitecliffe development in the Garden City. ▪ A new Route C and the extension of Route A utilising these tunnels and the planned segregated routes through the Whitecliffe and Ebbsfleet developments to a new transport hub at Ebbsfleet Station. ▪ The further extension of Route A from Ebbsfleet Station to Gravesend town centre through Northfleet Riverside development sites. ▪ Any new Enhanced Partnership arrangement for Fastrack will cover the whole of the Fastrack route network as opposed to the current arrangement that operates for each route separately. 	<p><i>Kent CC</i> <i>Developers</i> <i>Fastrack Operator</i></p> <p><i>Autumn 2022</i></p> <p><i>2022/23</i></p> <p><i>October 2022</i></p>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		<ul style="list-style-type: none"> Review of bus stops along the Fastrack routes to see where there may be opportunities to create "mini-transport hubs" that would encourage multi-modal journeys (e.g. secure cycle storage, cycle/e-bike hire, and electric car clubs). The provision of a new 24/7 service for the Amazon hub at Littlebrook. <p>KCC Public Transport team, as the commissioner of Fastrack BRT services, monitors the usage and service performance data and periodically additional focused research is undertaken.</p> <p>The expansion and further development of Fastrack services is governed by a Fastrack Advisory Board which is served by a Fastrack Working Group. This includes representatives from DBC, KCC, EDC, Gravesham BC, the Fastrack operator and other parties. Together these groups monitor the progress of Fastrack, discuss issues regarding its operation and prioritise improvements to the network and services.</p>	
	2 Priority Measures on Existing Road Network	<p>Parts of the existing and future routes for Fastrack will be required to operate on the existing road network. For journey times to be reliable it is important that the Fastrack services do not get caught up in traffic congestion. When Routes A and B were designed the opportunity to provide segregated routes was exploited to its full extent.</p> <p>To maintain Fastracks credibility and make it attractive to users over the private car it will be vital that the current and future services operate with the least impediment. Whilst segregated routes may not be possible in every location the Council will work with Kent Highways and KCC Public Transport team to review the routes and identify where further segregation or bus priority measures can be incorporated. The aim being to identify a package of feasible and viable measures that would improve the functioning of Fastrack services which would secure funding for their delivery.</p>	<i>Kent CC Dartford BC</i>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		Work is already taking place through the Urban Traffic Management & Control (UTMC) project to upgrade traffic signals along the existing Fastrack routes that will not only improve junction capacity but allow better priority for Fastrack services.	
	3 Fleet Enhancement	<p>In advance of the new commissioning arrangements to come into effect in 2022, KCC Public Transport team has been trialling the use of electric buses and the infrastructure needed to operate these with the Garden City and a bid for funding through the DfT's ZEBRA (Zero Emission Bus Regional Areas) programme has been submitted. Regardless of the ZEBRA funding it is the intention of the KCC Public Transport team for Fastrack to have a full zero emission fleet as part of the new Enhanced.</p> <p>KCC Public Transport team, as the commissioner is also scoping plans to trial autonomous electric buses on Fastrack routes for year with the initial route being between Darent Valley Hospital and Bluewater shopping centre. A further trial on an extended part of the Fastrack network is to be determined. This is in the early planning stages with an experienced autonomous vehicle supplier and key stakeholders, including the Council, will be engaged throughout the trial.</p>	<p><i>Kent CC</i> <i>Ebbsfleet DC</i> <i>Fastrack Operator</i></p> <p><i>Late 2022</i></p> <p><i>Starting 2023</i></p>
G Improve the facilities, accessibility and passenger environment at railway stations within the Borough to encourage greater use.	1 Swanscombe Station	<p>Accessibility to Swanscombe Station is severely restricted and facilities for passengers are poor. It has been a long-standing priority for the Council to overcome the deficiencies this station has so that it can provide better access to rail services for local residents.</p> <p>The relocation of this station to enable better access has come forward as a suggestion in relation to the London Resort proposals. Whilst within this context there may be benefits, without London Resort a balance would need to be made between a more accessible station and its relationship to the community it serves.</p>	<i>Network Rail</i> <i>Southeastern</i>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		The Council will continue to push for the improvement of this station to be included within the investment programmes of Network Rail as the infrastructure provider and the train operating company.	
	2 Stone Crossing Station	<p>This station also has poor facilities and access and currently has few trains stopping there. However, its location has the potential to serve the major employment area of Crossways Business Park, Stone and new residential development in the area that is coming forward.</p> <p>As well as having more frequent trains stopping at the station there is an obvious need for better parking which currently impacts on adjacent residential streets. Better connections with public transport services and active travel modes would also help.</p> <p>As a result of the work that has been done for the Abbey Wood to Ebbsfleet extension of Elizabeth Line (Crossrail) services there has been the suggestions that the station could be relocated. This is an option that could be further explored but the proximity of Greenhithe Station to the east is a factor.</p> <p>The Council will continue to press for improvements to be included within the investment programmes of Network Rail as the infrastructure provider and the train operating company and a better service pattern to encourage greater use.</p>	<i>Network Rail Southeastern</i>
	3 Dartford Station	<p>The station forms a major gateway to Dartford town centre but being in an elevated position makes integration with other forms of public transport difficult. Plans are already being considered to improve facilities at the station including:</p> <ul style="list-style-type: none"> • the provision of bike hire (now installed); • better secure storage for cycles; • better accessibility including the utilisation of a redundant road giving access to Hythe Street/Home Gardens; and • better integration with bus stops in Home Gardens 	<i>Network Rail Southeastern Homes England Dartford BC</i>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		The station and its surrounds are identified within the Local Plan as an area with development potential (Policy D7). Development proposals will be considered that improve the accessibility and integration of the station including its potential relocation to the west.	
H Maintain and enhance the local bus network across the Borough including innovative approaches to service provision	1 Dartford Bus Collaboration Group	<p>This Group, set up organised by the Council, meets on a regular basis to discuss issues that impact on local bus services and their reliability. The Group includes Kent Highways, as the local transport authority, and local bus operators. Issues the Group has discussed include:</p> <ul style="list-style-type: none"> ▪ Parking enforcement where it impacts on bus stops and bus routes. ▪ Relocation and further improvement of bus stops within Dartford town centre as part of the Dartford TC Project. ▪ Markings and facilities at existing bus stops. ▪ Kent CC procurement for new green roofed bus stops and potential for some stops to be upgraded to "mini-hubs". ▪ Issues around school drop-off/pick-up where this impacts bus routes (crossover with Safer Routes to Schools see below). ▪ Monitoring of lost mileage and time keeping for local bus services. <p>The Council will continue to work with the bus operators and Kent CC through this forum to identify issues of concern and the solution to overcoming these. Funding has already been committed by the Council from developer contributions held for the upgrade of Urban Traffic Management & Control (UTMC) systems at 20 signal junctions across the Borough targeted at improving the efficiency of their operation that would benefit bus priority.</p> <p>Priorities identified by this Group will feed into the Kent Bus Strategy and the Bus Service Improvement Plans that local</p>	<i>Dartford BC Kent CC Bus Operators</i>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		transport authorities are required to produce under the Government's Bus Strategy for England.	
	2 Demand Responsive Transport (DRT)	<p>The Government's Bus Strategy for England encourages the use of innovative public transport solutions where conventional bus services are more difficult to sustain. Such services should also be used to extend evening and provide weekend bus services in conjunction with conventional bus services.</p> <p>Kent CC has facilitated the introduction of a DRT scheme in Ebbsfleet with initial funding for two years provided through developer contributions. DRT uses minibuses responding to passenger bookings by a DRT App and travelling to destinations requested by the passengers within the DRT service zone. Complimentary to the conventional public transport network the aim is to reduce the need for private car ownership and single occupancy use. The service also benefits those without access to a car. The Ebbsfleet developers have contracted Arriva Click to deliver the DRT service until Fastrack BRT services are operating through the Bean Road Tunnels in Summer/Autumn 2022.</p> <p>The service will be monitored with the results being used to assess what improvements could be made for it to continue and the potential application of similar DRT services in other areas of Dartford/Ebbsfleet. Previous incarnations of DRT services have been particularly beneficial to residents within rural areas that are difficult to serve with conventional bus services.</p>	<p><i>Kent CC</i> <i>Ebbsfleet DC</i> <i>Bus Operators</i></p> <p><i>Since November 2020</i></p>
I Identify new and enhance existing locations where "Hubs" can be created allowing seamless interchange between different public transport modes and between public	1 Rail stations	All rail stations across the Borough have had additional cycle parking installed with the aid of South East LEP funding and delivered through Network Rail. However, further needs are likely to arise with the potential for a greater demand for such facilities as active travel is encouraged. The situation for stations within the Borough should be kept under review.	<i>Network Rail</i> <i>Southeastern</i> <i>Kent CC</i>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
transport and active travel modes.		Similarly, further improvements to pedestrian routes to/from stations, access for those with limited/impaired ability and connections with other forms of public transport should be regularly considered and update/enhanced if necessary. This would support the Councils ambition to have better public transport and active travel integrate at all stations.	
	2 Bluewater	This major regional retail centre already has a significant public transport hub which is a focus for both local and regional bus services including Fastrack. The hub is already well used. The opening of the tunnels under the B255 that will connect Bluewater to the Whitecliffe development site and, via future Fastrack routes to Ebbsfleet Station, is expected to instigate a reconsideration of how the existing transport hub will operate. The Council will work with owners of Bluewater and other stakeholders regarding the future of this important transport hub.	<i>Bluewater Dartford BC Ebbsfleet DC Fastrack Operator Bus Operators</i>
	3 Ebbsfleet Transport Hub	Ebbsfleet International Station currently provides interchange between rail, public transport and active travel modes of transport. With major development being planned around the station (Ebbsfleet Central) there is significant scope for this hub to be expanded and improved. This could include a new connection between Ebbsfleet and Northfleet stations linking North Kent and High Speed rail lines and providing a more direct link to Ebbsfleet Station for the existing and new communities at Northfleet. A major transport hub within Ebbsfleet Central and the link between Ebbsfleet and Northfleet stations is identified in the Ebbsfleet Implementation Framework.	<i>Ebbsfleet DC</i>
J Improve the level of information available regarding public transport provision and ticketing to make it easier for passengers to plan, book and	1 Mobility as a Service (MaaS)	An innovative project, being led by KCC Public Transport team, is under development which looks at introducing a MaaS App that would allow residents to plan, book and pay for a range of multi-modal journeys across a range of travel modes. The intention is for the App to be initially available for residents travelling to and	<i>Kent CC Ebbsfleet DC</i>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
pay for a wide range of journeys and complementary travel modes to encourage greater use and reduce dependency on private car use.		<p>from the Ebbsfleet Garden City, Dartford and Gravesham town centre areas (see MaaS Zone Area shown in Figure 9 of Annex A). The longer term aspiration is for this to extend across the wider Kent area once introduced in the initial MaaS Zone.</p> <p>The aim is to reduce car ownership and car journeys by increasing the options available to residents. This in turn would reduce congestion with benefits in terms of air quality and health. All of the major public transport operators are expected to be part of the MaaS Consortium. Timetable, fares and booking information would be integrated into the MaaS back-office platform and be available for residents through the App and website. A range of existing and new tickets would be available to purchase through the App for both single and multi-modal journeys along with new monthly travel subscription products.</p> <p>Kent CC intends to facilitate the introduction of additional modes of transport to be integrated into the MaaS App/back office platform, including electric car clubs and bike/e-bike hire companies with the inclusion of their booking and fare information, on the basis of the market potential across the Borough. Demand Responsive Transport may also be integrated subject to further funding being secured.</p> <p>A Business Case for MaaS, to secure Kent CC internal approval for implementation is scheduled and the procurement of a MaaS partner to provide the technology and operate the system would then follow. A public launch of the MaaS App planned which will include a large marketing and behavioural change campaign including incentives and gaming within the App.</p> <p>Funding for the initial MaaS scheme and its delivery is expected to come from Kent CC and supplemented by Ebbsfleet DC for certain aspects such as staff costs and proposed bike/e-bike hire scheme.</p>	<p><i>Late 2022 onwards</i></p> <p><i>End of 2021</i></p> <p><i>In 2023</i></p>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		Further engagement between KCC Public Transport, Dartford BC and Ebbsfleet DC will take place as the scheme develops.	

Active Travel Measures

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
K Improve Dartford's Active Travel network by identifying potential upgrades and improvements that extend and complete the existing networks.	1 Cycle Network Audit	<p>A 2017 study undertaken by Sustrans provides an assessment of the key north-south and east-west cycle routes across the Borough. The study classified sections of each route as either adequate, constrained, requiring moderate intervention, with a barrier or unsafe requiring significant intervention. The study is a key background document that is used to prioritise future improvement projects and identify issues to be addressed on Dartford's cycle network where opportunities arise.</p> <p>An audit of cycle routes across Kent is being carried out by Kent CC to provide a comprehensive map of the cycle network and identify associated assets. This will enable effective asset management, support accurate and safer journey planning and bring a renewed focus on cycling as a means of transport.</p> <p>The Audit provides the opportunity for a review of the cycle network in Dartford to understand the changes that have occurred since the Sustrans study in 2017. The Council can then, in conjunction with Kent CC, identify gaps within the network which can then be prioritised and form the focus for delivery, which could include the requirement for development to deliver where applicable.</p>	<p><i>Kent CC</i> <i>Dartford BC</i></p> <p><i>Completion in 2021/2022</i></p> <p><i>2022/23 onwards</i></p>
	2 Active Travel Strategy/Local Cycling & Walking Infrastructure Plans (LCWIP)	<p>Technical guidance produced by the Department for Transport provides tools for the auditing of walking and cycling routes and selection of improvements. The Council will continue to work with Kent Highways to identify and map walking and cycling networks and areas where improvements are required. The aim being to develop a programme of improvements that would deliver a comprehensive and connected walking and cycling networks across the Borough.</p> <p>Following the publication of this Sustainable Transport Strategy, the Council will pursue the development of an Active Travel Strategy</p>	<p><i>Kent CC</i> <i>Dartford BC</i></p> <p><i>2022/23 onwards</i></p> <p><i>2022/23</i></p>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		that would encompass improvements to walking and cycling infrastructure and softer measures, such as raising the awareness of the health benefits of a more active lifestyle, to influence behavioural change. The need for a separate LCWIP for Dartford will be reviewed as part of the development of the Active Travel Strategy.	
L Improve Active Travel links for specific trip generators.	1 Safer Routes to Schools	<p>The Council is working with Kent CC and Ebbsfleet DC on a range of improvements at several schools within Dartford. This is part of an on-going countywide programme under the broad umbrella of Safer Routes to Schools. The improvements are targeted at creating an improved environment around schools that increases safety for pupils and provides better accessibility by active travel modes.</p> <p>This current work stream is mainly focused on primary schools where the likelihood of the pupils coming from the local neighbourhood is higher, but similar principles can apply to secondary schools. Measures involve rationalising parking around the school entrances, wider footways, improving cycle routes and providing better crossing points on the routes to/from school. Where the opportunities to establish traffic free routes arise these will be pursued and the creation of traffic free zones around school entrances will also be explored.</p> <p>The work is also looking at School Travel Plans with those schools without them be encouraged to produced one whilst existing School Travel Plans are also being reviewed. The building of a new primary or secondary school within the Borough will be required to produce a School Travel Plan.</p>	<i>Kent CC Dartford BC Ebbsfleet DC</i>
	2 Crossways Business Park	The opportunity exists to create a new off-road walking/cycling route along a 2.25km section of the A206 Crossways Boulevard between Crossways Business Park and Greenhithe. The new	<i>Kent CC Dartford BC</i>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		shared facility would be set within Borough Open Space around the lakes to the north of the dual-carriageway. Improved crossings of the A206 would also improve connections with Stone crossing and Greenhithe Stations. Improvements would support journeys to work by more sustainable forms of transport for this major employment area.	
	3 Darent Valley Hospital	The Council is in regular discussions with the Darent Valley Hospital Trust regarding its future development to serve the planned future development for Dartford. Part of these discussions include transport provision. The hospital is already served by Fastrack Route B, 423/433 and 477 bus services. As previously mentioned the hospital forms part of the trial of autonomous electric buses on Fastrack routes and will in due course be served by the new Fastrack Route C. The Hospital Trust has identified issues related to parking on its which need to be resolved and in further discussions with the Trust the Council will explore the opportunities for improvement of Active Travel links to the hospital and what benefits these may bring combined with innovations such as bike/e-bike hire.	<i>Darent Valley Hospital Trust</i> <i>Ongoing</i>
M Support the expansion of Dartford's Green Grid network to provide a comprehensive network giving Dartford's residents access to open spaces, river frontages and the countryside.	1 Dartford's Strategic Green Grid Network	This is shown in Figure 10 of Appendix A. This is utilised to help prioritise and the planning and delivery of green infrastructure and active travel improvements across the Borough. A well-connected series of green spaces with green corridors not only benefits Dartford's residents with wider access it also enables wildlife movements and connections within an urban environment with the potential to increase biodiversity. Dartford's Strategic Green Grid includes: <ul style="list-style-type: none"> ▪ The Thames Path (soon to become part of the England Coast Path). ▪ National Cycle Routes 1 and 125 which traverse the Borough broadly east-west and north-south respectively. 	<i>Dartford BC</i> <i>Kent CC Public Rights of Way</i>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		<ul style="list-style-type: none"> ▪ Darent Valley Path (see O.2). ▪ Dartford Marshes, Central Park, Stone Country Park, Stone Recreation Ground and Swanscombe Heritage Park. ▪ Darent Country Park and protected woodland areas to the south of the A2. <p>In terms of key urban-rural connections within the Borough a 3km green corridor would connect Darent Country Park in the south with Stone Crossing Station to the north. Improvements along this route could be prioritised as it connects a number of green spaces and provides access for adjacent residential areas and access to sustainable transport.</p> <p>The Strategic Green Grid Network would remain under review for further opportunities to expand and enhance both green corridors green spaces particularly where any missing links are identified.</p>	
	2 EDC Green Corridors Programme	<p>Through its Investment Programme the Ebbsfleet DC has been delivering multiple small and medium scale schemes to improve walking and cycling infrastructure within the Garden City and on routes connecting it to the wider area. A number of these schemes are within the eastern part of the Borough.</p> <p>Overall, this programme aims to create a strong active travel culture with additional public realm, public health and safety benefits. The scope of the improvements vary from simpler measures such as dropped kerbs and improved crossing points to more extensive schemes such as widening and surface improvement along routes and formalised/segregated cycle lanes.</p> <p>Two phase of the Green Corridor Programme have already been completed and Phase 3 has recently commenced. The scoping for a further Phase 4 is also underway. Links from the Garden City to other areas in Dartford will be considered.</p>	<p><i>Ebbsfleet DC</i> <i>Kent CC</i></p> <p><i>Completion 2022/23 to 2024/25</i></p>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
N Provide better information to Dartford residents and visitors to the Borough that makes journeys by Active Travel modes clearer and the preferred choice.	1 Wayfinding	<p>The EDC's plans for wayfinding, described under B2(d), and those being developed for Dartford Town Centre, described under B1(b), will be compared to identify common threads and lessons learned.</p> <p>The opportunity will then be taken to extend a Wayfinding Strategy across the Borough. This would provide a template for future developers to use and ensure that further implementation of wayfinding measures is carried out on a consistent basis providing uniformity clearly understood by all.</p>	<p><i>Dartford BC</i> <i>Ebbsfleet DC</i></p> <p><i>2025 onwards</i></p>
O Identify strategic locations or corridors on the active travel network where improvements would support development, modal shift and accessibility for both leisure activities and day-to-day journeys.	1 River Darent Active Travel Bridge(s)	<p>As the development of brownfield sites either side of the River Darent to the north of Dartford town centre have progressed consideration has been given to overcoming east-west pedestrian/cycle restrictions to the north of Dartford town centre. A feasibility study was carried out in 2020 that evaluated a number of options. This has been recently reviewed.</p> <p>The scope for a crossing of the River Darent between the Thames and Dartford town centre has also recently extended as a result of:</p> <ul style="list-style-type: none"> ▪ Renewed interest in a crossing as part Thames Path/English Coastal Path. ▪ The LB Bexley identifying a crossing north of its confluence with the river Cray as a priority with its Local Plan. ▪ Interest in the area as a location for potential additional development emanating from the Abbey Wood to Ebbsfleet extension of Elizabeth Line (Crossrail) services. ▪ Extension of the Via Francigena (pilgrim's route to Rome) from Canterbury to London via Dartford. <p>Further investigation of the above interests needs to be carried out before any final decision is made regarding a new crossing of the River Darent north of Dartford town centre. There may well a location that meets the aims and objectives of a number of the above and the possibility of additional funding.</p>	<p><i>Dartford BC</i> <i>Kent CC (PROW)</i> <i>LB Bexley</i></p> <p><i>2022/23 onwards</i></p>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
	2 Darent Valley Path	<p>The River Darent flows from its source in the Greensand Hills south of Westerham to join the Thames at Dartford. The waymarked path along this river runs for 19 miles and passes through the heart of Dartford town centre. Recent research has confirmed the potential for:</p> <ul style="list-style-type: none"> ▪ The creation of a high quality public realm along the riverside as it passes between the County Court and the Wickes site and beneath the railway where it links with the recently completed riverside walkway. ▪ The upgrading of the existing bridge to the south of the railway providing a link between Dartford station and Overy Street. ▪ An improved, shared pedestrian/cycle path along the east bank alongside the Riverside Industrial Estate with better wayfinding and links to the local roads. ▪ The upgrading or replacement of existing bridges across the river linking the existing industrial estates and new development on either side of the river (see 0.1 River Darent Active Travel Bridge). <p>South of the town centre the Darent Valley remains a landscape of surprising beauty, rich in diverse habitats and cultural heritage but many people within easy reach lack an awareness of the potential it has to offer.</p> <p>The Darent Valley Landscape Partnership is working to conserve and enhance the distinctive landscapes of the Darent Valley and connect people living along its course to help conserve it for the future. The partnership brings together a wide range of organisations with the aim empowering local communities and achieving sustainable conservation of the Darent Valley's natural and cultural heritage. The partnership is supported by the Heritage</p>	<p><i>Kent CC Public Rights of Way</i> <i>Dartford BC</i> <i>Darent Valley Landscape Partnership</i></p>

Summary of Requirement	Focus	Outline of Work/Actions	Delivery
		Lottery Fund and the Council will continue its work the DVLP to develop and deliver projects within the Borough.	

6. Delivery & Funding

Delivery

6.1 Delivery of the projects and programmes identified in this Strategy requires collaborative working with a range of partners who have a greater responsibility for transport provision within the Borough than the Council. Key partners are National Highways (NH), as the strategic highway authority, Kent County Council (KCC), as the local transport authority and the Ebbsfleet Development Corporation (EDC) as the local planning authority for the Ebbsfleet Garden City. Each of these key stakeholders has access to funding and investment programmes for the delivery of transport infrastructure. The Council works with each of these stakeholders to identify and promote projects that will improve transport infrastructure and provision within the Borough for mutual benefit in terms of achieving objectives.

6.2 There are specific projects, such as Dartford Town Centre Regeneration and parking, where it is more appropriate for the Council to take the lead. These projects may still involve other stakeholders working in collaboration with the Council. Collaborative working with partners and stakeholders will generally involve the formation of a Project Board or Steering Group that enables the progress of a project, and issues that arise regarding its delivery, to be monitored and discussed. This ensures that any risks to the delivery of a project are highlighted promptly so that corrective action can be taken in a timely manner. Local authorities and other public bodies will also have their own governance and reporting arrangements relating to expenditure on infrastructure provision that will need to be taken into account.

6.3 Other important partners in the delivery of transport infrastructure are bodies such as Network Rail and the train and bus operating companies. Partnership working with these bodies will be essential to delivering the public transport projects that, along with active travel modes, are at the heart of this Strategy. In addition to infrastructure that would result in an expansion of public transport services the public transport bodies would also lead in the improvement of fleets and facilities at stations or transport hubs that improves the experience for passengers. In working with the public transport bodies the Council will also work in collaboration with KCC and EDC as a broader collective approach ensures that all aspects of the delivery of a public transport project are covered. An example of this is the formation of the Dartford Bus Collaboration Group (see H1 of Section 5).

6.4 Developers have an important role in the delivery of infrastructure particularly in respect of active travel modes but also ensuring that there developments are accessible by public transport. The delivery of safe walking and cycling routes within a development is expected and infrastructure improvements that connect a development to the wider walking, cycling and green grid network would also be discussed. Similarly, the Local Plan places a strong emphasis on development that is well located to public transport provision and the Council would look for development to be permeable or accessible to public transport with improvements to services, where appropriate, to meet the travel demand generated and reduce reliance on the private car. The direct delivery of transport

infrastructure improvements by developers would be sought and for major sites the provision of segregated routes for walking, cycling and public transport would be pursued.

Funding

6.5 Dartford Borough Council adopted a CIL Charging Scheme in April 2014 and this is the Council's principle means of securing contributions from development for infrastructure improvements. The Council's governance arrangements for CIL involve an annual review process that monitors the level of CIL received in the preceding financial year, the CIL retained from previous years and the expenditure of CIL. As CIL contributions can be used for a wide range of infrastructure provision the Council sets its priorities for expenditure through its Infrastructure Delivery Programme and a 5-Year Forward Delivery Programme. The use of CIL contributions for any particular project is determined by the Council's Cabinet having been appraised of the benefits of the project and the level of CIL contribution in relation to other sources of funding. The Council can also secure developer contributions and the direct delivery of infrastructure through s106 planning obligations for site specific infrastructure.

6.6 Since 2020, the Council has been required to produce and publish an annual [Infrastructure Funding Statement \(IFS\)](#)²² that provides information of the developer contributions received through CIL and s106 agreements for the previous financial year; the expenditure of any developer contributions in that year and the contributions retained by the Council. The Council published its first IFS at the end of December 2020 for the 2019/20 financial year which reported:

CIL contributions received in 2019/20	£3,793,804
Expenditure of CIL in 2019/20	£0
s106 contributions received in 2019/20	£1,329,903
Expenditure of s106 contributions in 2019/20	£153,968
CIL retained over the period 2014/15 – 2019/20	£9,394,203
s106 contributions retained as of 31 st March 2020	£5,674,761

6.7 The Council is required to transfer a proportion of the CIL contributions it receives to town and parish councils (the Neighbourhood Portion) from development within their areas. Whilst the town and parish councils are at liberty to spend this funding on local infrastructure that meets demand generated by development in their area, the Council encourages them to pool their resources with the CIL retained by the Council for strategic infrastructure improvements.

6.8 By working in partnership with key stakeholders on the delivery of transport infrastructure projects the Council is able to access the funding streams available to these partners. Collaborative working also opens up opportunities for funding through Government initiatives and other third party funding which the Council will continue to explore with its partners.

²² https://www.dartford.gov.uk/_data/assets/pdf_file/0010/1086715/Dartford-Infrastructure-Funding-Statement-2019-20.pdf

7. Monitoring & Review

Monitoring

7.1 An effective and proportionate implementation and monitoring framework is essential to ensure that the projects and programmes identified in this Strategy meets the intended aims and objectives. Monitoring of the effectiveness of this Strategy will rely on a wide range of sources of data collected by both national, regional and local bodies. National and regional data such as that produced by the Office of National Statistics and National Travel Survey will depend on the level of disaggregation enabling data specifically relevant to Dartford Borough.

7.2 The Council will utilise traffic and transport data available from the partners and key stakeholders it is working with such as passenger data held by the train and bus operating companies mindful that this data may be commercially sensitive. Kent Highways has implemented a limited number of new automatic telemetry cycle and walking counters in Dartford. Cycle counters are also planned to be incorporated into schemes implemented within Dartford town centre and Ebbsfleet Garden City. Annual traffic data is collected for the main roads through Dartford.

7.3 A number of the major development sites currently being built-out have a requirement to monitor traffic and transport movements generated by their development. It is intended that further provision will be made as new larger development sites come forward with opportunities arising through a requirement of planning consents related to a monitor and manage approach as outlined in **C2**. Where larger development sites are required to provide a transport statement/assessment the information used for this will be collated.

7.4 The Council already monitors air quality across the Borough and as the principal issues for air quality are related to traffic this monitoring provides an indirect measure of the effectiveness of actions set out in this Strategy. Air quality monitoring consists of 3 continuous monitoring stations and a further 54 diffusion tubes located across the Borough. An Air Quality Steering Group has been established by the Council which in part reviews the data from the air quality monitoring using for dispersion modelling and the review of the Air Quality Management Areas and Air Quality Action Plans.

7.5 Other sources of data such as CIL income, Infrastructure Funding Statements and specific reports on the progress of projects will data on the infrastructure improvements being delivered across the Borough.

Review of Strategy

7.6 Many of the projects identified within this Strategy are seeking to capture the impetus of the drivers of change in travel behaviour. However, it is assumed that the policy context, strategies and travel behaviour will continue to evolve over time as new opportunities and ideas to achieve a step-change in sustainable travel emerge. The Sustainable Transport Strategy will, therefore, be reviewed and updated to ensure that:

- a) the aims and objectives of the Strategy remain relevant,
- b) due consideration is given of the contribution that projects already identified provide to the aims and objectives of the Strategy, and

- c) new projects and approaches are identified and incorporated within the Framework as they come forward.

7.6 Joint working with key stakeholders other partners in groups as outlined in Chapter 6 will provide the ability to identify emerging trends arising in Dartford and North Kent and the opportunities leading to the development of new projects and approaches. In this way the Sustainable Transport Strategy should stay relevant to the needs and demands placed on the transport network within the Borough.

7.7 The Dartford Sustainable Transport Strategy is a “living document” that will change on a regular basis as projects already identified are delivered and new projects come forward. Much of this may be reported through other documents produced by the Council on an annual basis. It is currently anticipated that a full review of the Strategy would be carried out within 5 years to cover the progress that has been made and other changes affecting sustainable transport provision.

Supporting Plans & Tables

Figure 7: Phasing of Dartford Town Centre Regeneration Project

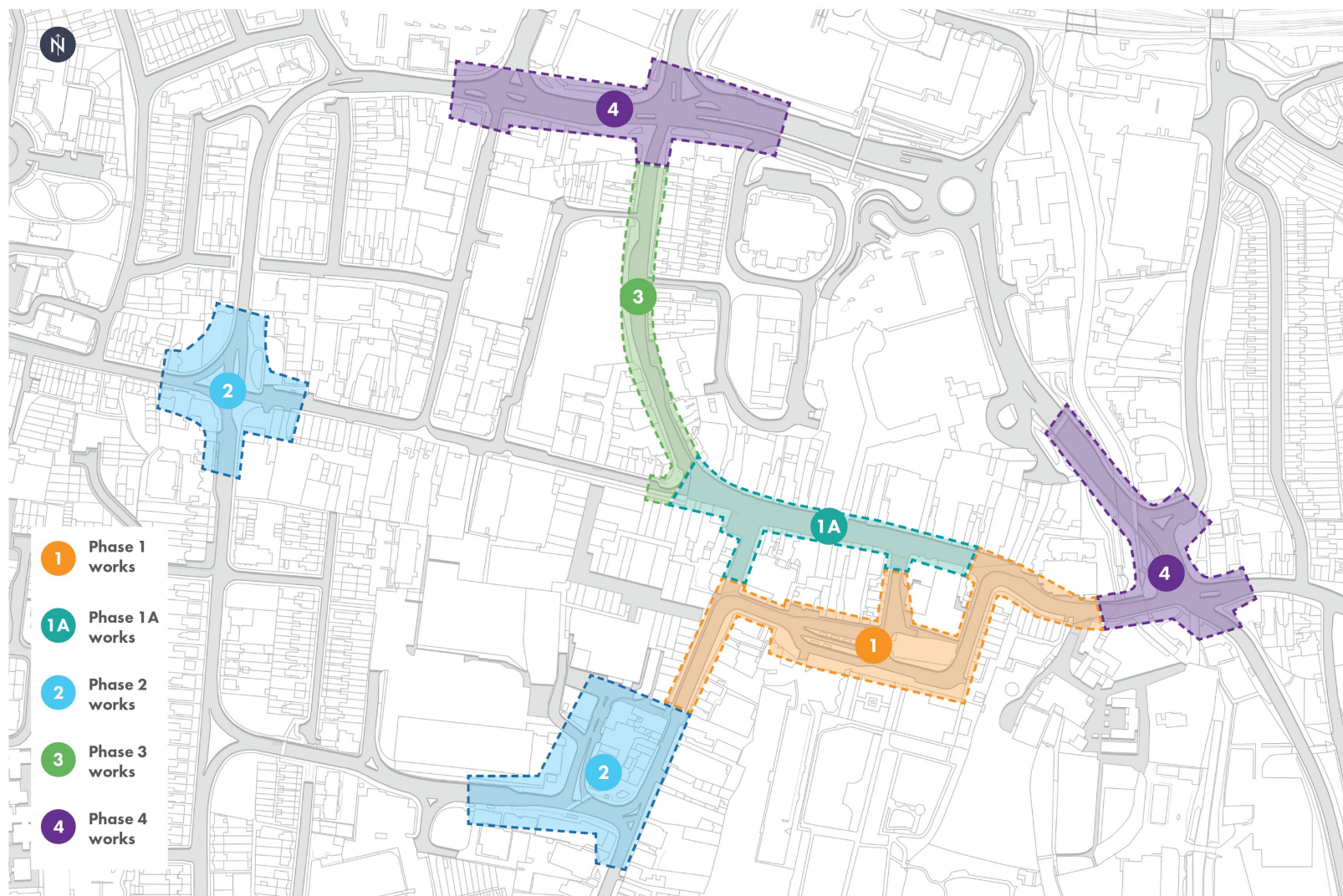
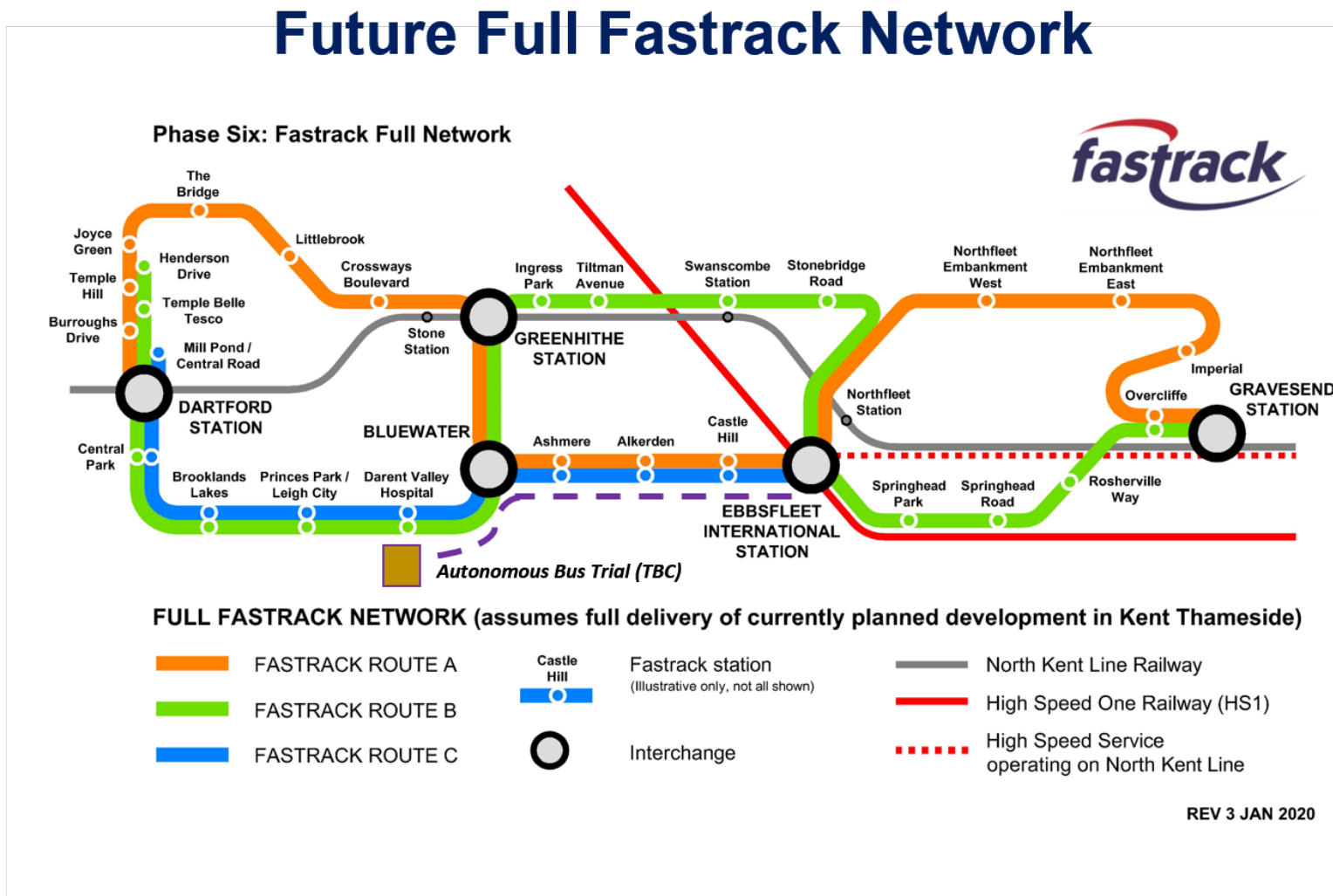
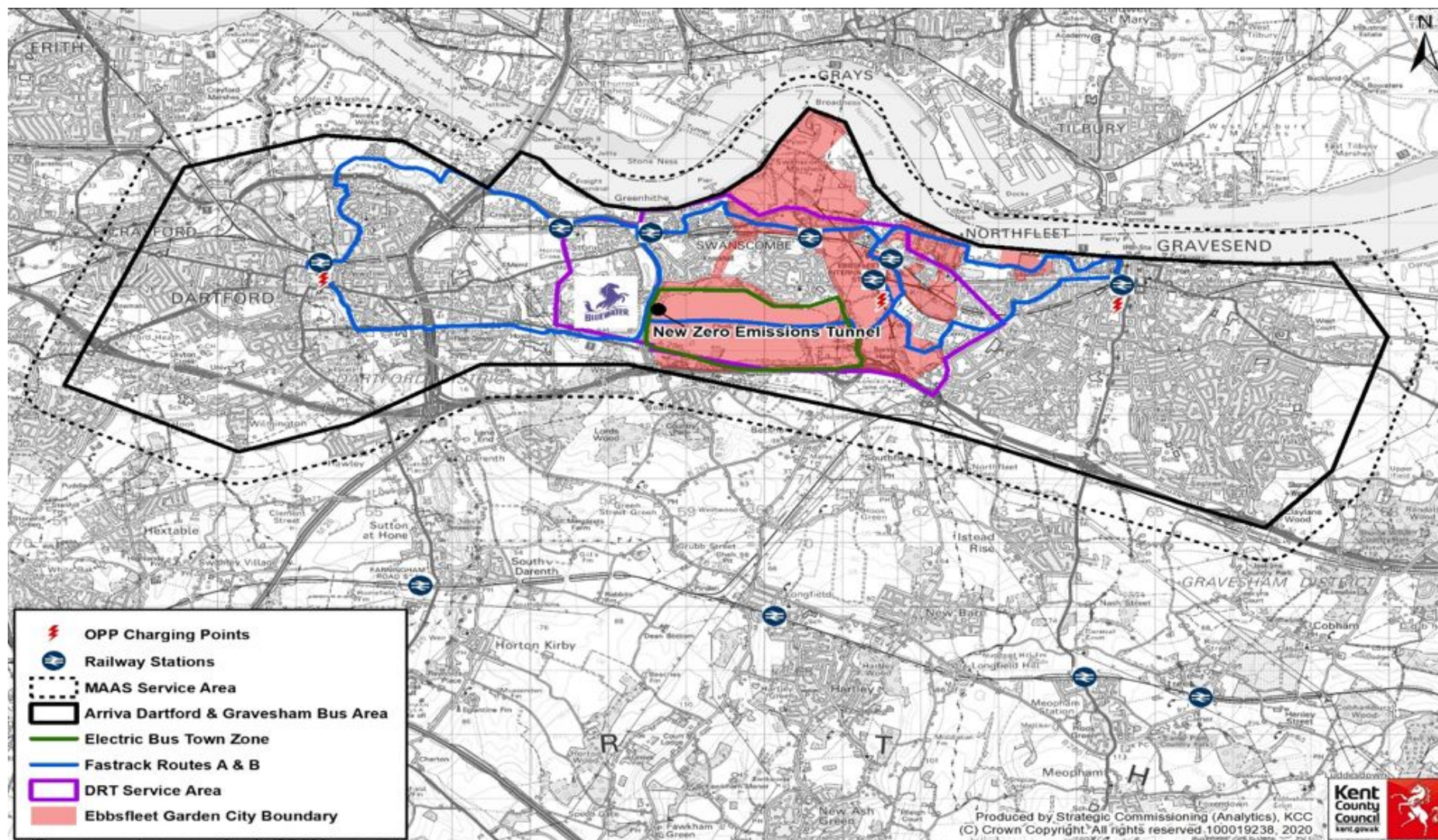


Figure 8: Future Full Fastrack Network



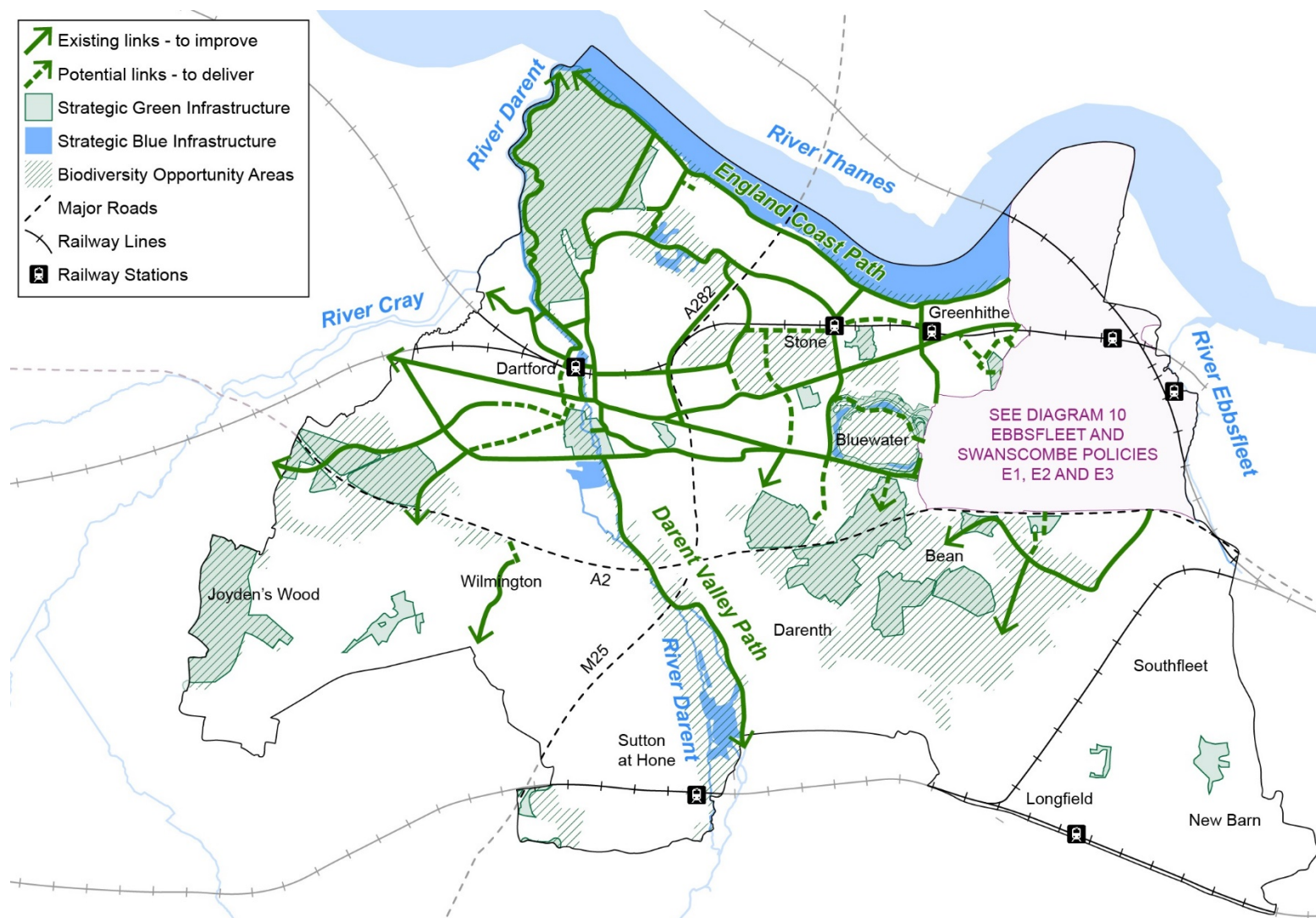
Supporting Plans & Tables

Figure 9: MaaS (Mobility as a Service) Zone for Ebbsfleet



Supporting Plans & Tables

Figure 10: Dartford's Strategic Green Grid Network



[illegible]

Supporting Plans & Tables

Table 1: National Travel Survey for England 2014-20019

Travel Mode	Year	Average Trips (per person/year)	Average Miles Travelled (per person/year)	Average Time per Trip (mins)
Car	2014	590	5,067	22
	2015	584	5,159	22
	2016	591	5,079	22
	2017	594	5,104	22
	2018	602	5,036	21
	2019	598	5,009	22
Walking	2014	200	181	18
	2015	200	184	18
	2016	243	198	16
	2017	255	206	17
	2018	262	210	16
	2019	250	205	17
Cycling	2014	18	58	23
	2015	17	53	22
	2016	15	53	24
	2017	17	60	23
	2018	17	58	23
	2019	16	54	23
Local Bus	2014	60	326	37
	2015	62	334	36
	2016	52	291	26
	2017	56	315	38
	2018	48	235	36
	2019	50	231	36
Surface Rail	2014	31	634	67
	2015	20	595	81
	2016	21	538	76
	2017	21	558	79
	2018	22	617	81
	2019	21	625	82

Local Plan Policies & References Supporting Sustainable Transport

The following table provides a summary of the provisions within the Local Plan supporting sustainable travel and how they will be implemented/delivered.

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
OVERALL SUSTAINABLE TRAVEL STRATEGY/ REDUCING DEPENDANCE ON THE CAR				
2.30-2.33		✓	Acknowledgement that the transport network needs to be improved and planning interventions are necessary. Recognition that the both railways and roads are encountering high volumes of usage with particular congestion issues at Dartford Crossing having negative impact. Recognition is given that even with highways upgrades increased demand in transport can only be accommodated if a modal shift to public and active transport is made.	See Policy S2 <i>Infrastructure Planning Strategy</i> and other Strategic Policies.
S2.1	✓		Development in the Borough will be plan-led to ensure infrastructure delivery.	Development at sites not identified by the Local Plan or in supporting evidence such as the SHLAA, will be treated as Windfalls and assessed and determined accordingly. See policy M9.
S2.3	✓		Large trip generating developments should support public transport use and new infrastructure. All major development will feature measures to provide improved walking and cycling routes integrated with the surrounding area.	Assessment of development applications must consider the expected trip generation of the proposed use and include appropriate proposals for a high proportion of trips being made by public transport and active modes. In particular for large developments this should include improved cycling/walking infrastructure on site and linking to the local area.
S2.7	✓		The IDP sets the Council's priorities for infrastructure delivery.	The IDP is reviewed annually and is the basis for the Council, in conjunction with partners, prioritising CIL infrastructure funding. Sustainable transport infrastructure is included.

Local Plan Policies & References Supporting Sustainable Transport

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
S3.2	✓		Sustainable and active travel modes will be embedded into developments through designing for walking, cycling, public transport and low carbon motorised personal transport	The design of development must enable and support sustainable and active modes of transport and this will be assessed when determining planning applications. Where outlined in policy, Travel Plans and/or contribution to sustainable travel infrastructure delivery will be required from applicants.
S4 and 2.66	✓	✓	Policy S4 sets out the development levels for the Borough over the Plan period. Paragraph 2.66 states that the development levels can be sustainably accommodated within the Borough through application of the spatial strategy, infrastructure and climate change strategic principles (policies S1-S4).	The spatial strategy must be maintained in order for development to occur in a sustainable manner. This includes proposed transport upgrades, green/ blue infrastructure delivery, location and connectivity of development schemes. Development applications that do not accord with the strategic and/or development management policies within the Plan will therefore not be supported.
M17.1	✓		Development must be of a design and layout to promote walking cycling and public transport through attractive and safe routes. Guidance set out in Manual for Streets must be applied.	The design of a proposal will be reviewed when considering a planning application. Design that does not allow and promote active travel and connection to public transport will not be supported.
M19	✓		New development where appropriately located and designed will be supported (classes B and E) with major developments at Central Dartford, Ebbsfleet Garden City, at identified Employment Areas or within the Network of Retail Centres	Appropriateness of location will be a key factor considered in determination of class b and E development proposals. The identified locations will provide an opportunity to achieve higher levels of modal shift.
SUSTAINABLE LOCATIONS				
2.34		✓	Traffic generating uses, such as schools, healthcare, shopping and/or employment, must be well located and in close proximity to	See policy M16.1 below

Local Plan Policies & References Supporting Sustainable Transport

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
			each other and residential areas with a realistic choice of travel modes.	
S2.3	✓		Communities will have access to the day-to-day facilities they need and development will be well served by public transport and in walking distance of facilities.	Assessment of development applications will consider the degree to which the proposal is sustainably located including existing and future potential access to sustainable travel opportunities.
S2.2	✓		Community uses will be retained and new facilities delivered	When determining applications that result in a loss of a community use or local shop, the impact on the community and their travel behaviours will be considered.
S3.1	✓		Development will be well located...to mitigate and adapt to the effects of climate change. Development should contribute to minimising carbon emissions and reduce the need for unsustainable travel.	Development must enable sustainable and active modes of transport and this will be assessed when determining planning applications. Where outlined in policy, Travel Plans and/or contribution to infrastructure delivery will be required from applicants.
5.81 – 5.86		✓	Development should occur at locations that are demonstrably sustainably located. The SHLAA identifies these sites and all other development is considered 'windfall'. These necessitate proper assessment as to whether facilities and links are within close walking distance.	See policy M9 below.
M9.2	✓		Windfall development will only be acceptable if it is in a sustainable location and the benefits outweigh the disbenefits. Proposals including 5 or more units must demonstrate they are within an easy walking distance to a range of community facilities including shops.	Assessment will consider the location of community facilities, shops and employment uses in relation to the application site as well as the public transport options that are available. Sites that don't meet the minimum criteria will not be supported.
M16.1	✓		Development must be appropriately located and make	Identified sites in the Local Plan have already been assessed for sustainability of

Local Plan Policies & References Supporting Sustainable Transport

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
			suitable provision to minimise and manage transport impacts.	location. Other sites that may come forward will be assessed as Windfall development – see policy M9. Assessment of non-residential applications will consider the degree to which the proposal is sustainably located, see also policy M18, M19, M21 and M22.
M18.1	✓		New community facilities should be sited close to the population they will serve with reference to access routes for active and other forms of travel. Large scale schemes attracting users travelling in from outside the Borough must demonstrate the local need for the scale of the proposal, unless delivering an essential public sector service or shown to be required to serve the neighbourhood community.	Assessment of proposals will consider how community facilities connect to the local context in which they are situated, including how public transport can be accessed. Additional scrutiny of accessibility will be applied to large scale proposals that may draw users from further afield.
PUBLIC TRANSPORT				
2.35 – 2.38		✓	Economic growth that is not dependent on ever-increasing travel demand is supported. The potential for better trail connectivity with Crossrail is acknowledged and development should not prejudice this potential. Opportunities for other rail, station and bus improvements will also be explored.	A Crossrail safeguarding zone exists and will be taken into consideration when assessing planning applications.
S2.3	✓		Communities will have access to the day-to-day facilities they need and development will be well served by public transport and in walking distance of facilities. Large trip generating developments should support public transport use and new infrastructure. All major development will feature measures to provide improved active travel routes integrated with the surrounding area.	Assessment of development applications will consider the expected trip generation of the proposed use and the mitigation measures/ active transport opportunities included in the scheme or available in the area. The assessment will also consider how the scheme connects to the wider area and provides opportunities for walking and cycling.

Local Plan Policies & References Supporting Sustainable Transport

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
S2.4	✓		Opportunities for strategic transport upgrades will be maximised, including rail, bus, river transport and highways upgrades.	The Council is actively working with partners on long term improvements to rail and bus services, with further policy (detailed below) to support the delivery of future schemes. Where opportunities arise through new development, the Development Management determination and assessment process, will take account of Borough networks and partner ambitions in regard to proposals. This will over time lead to coordinated and coherent networks and sustainable travel opportunities.
S2.5	✓		Infrastructure delivery will be co-ordinated with other agencies and space for the delivery of that infrastructure will be reserved.	The Council is actively working with partners on long term improvements to rail and bus services, with further policy (detailed above) to support the delivery of future schemes. A Crossrail safeguarding is set and development in these zones that prohibit the future delivery of infrastructure will not be supported.
5.143 – 5.150		✓	Proposals with long build out times must provide public transport services in the early phases and plan for Fastrack or other sustainable transport services in the long run. Major development nearby to railway stations will be expected to support/ contribute to station upgrades.	The Council is actively working with partners, including developers and the EDC, on long term improvements to rail and bus services, with further policy (detailed above) to support the delivery of future schemes. Assessment of development nearby to or expected to impact on railway stations on the North Kent Line will consider the impacts of the development on the station and the level of contribution to the station's upgrade and/or connectivity.

Local Plan Policies & References Supporting Sustainable Transport

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
5.154-5.155		✓	The opportunity for river transportation should be explored and is supported and wharves should be safeguarded.	Assessment of riverside sites will consider if the opportunity for river transportation has been sufficiently explored. Development that prohibits the future use of wharves will be scrutinised and co-operation with the Port of London, including viability studies, is expected.
M16.1	✓		Development must be appropriately located and make suitable provision to minimise and manage transport impacts.	Assessment of applications will consider the mitigation and provision proposed by the scheme in relation to the potential impacts the scheme may have on the transport network as well as the scheme's contribution to the overall strategy of the Local plan.
M16.3	✓		New major development sites should include layouts that allow for routes into and within the site for Fastrack, buses and taxis. These should make community services and jobs easily accessible to all and assist the feasible and efficient operation of transport services. Large development at applicable locations must make early provisions for Fastrack and where appropriate facilitate new or extended conventional bus services.	Assessment of applications will consider how the proposal enables connection to and promotes use of public transport, particularly bus service such as Fastrack. Schemes must demonstrate, at application or pre-application stage, how they will be integrated with such services, and demonstrate that proposals are supported by relevant strategic partners.
M16.4	✓		Land required for Crossrail is safeguarded and development which will prejudice this will not be permitted. Any re-provision of railway stations on the North Kent line should enhance the capacity, quality and safety of the stations and promote sustainable modes of onward travel through integrating ticketing/ facilities supporting all public and active transport.	A Crossrail safeguarding zone exists and will be taken into consideration when assessing planning applications. Assessment of development nearby to or expected to impact on railway stations on the North Kent Line will consider the impacts of the development on the station and the contribution to the

Local Plan Policies & References Supporting Sustainable Transport

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
				station's upgrade and/or connectivity.
M16.5	✓		Proposals should capitalise on all feasible opportunities to promote movement on and alongside rivers including for passengers, products and the transportation of construction materials and waste.	Assessment of riverside sites will consider if the opportunity for river transportation has been sufficiently explored. Assessment will consider how the proposal improves the riverside environment and opens up opportunities for active transport routes alongside or on the river. Assessment of construction travel plans for sites nearby to the river will consider how use of the river for potential logistics will be considered.
M17.2	✓		Travel Plans should set deliverable actions for the promotion and delivery of active and public travel measures to increase their uptake and reduce demand for less sustainable/ efficient transport and feature clear measures and actions to enable the objectives to be met.	Travel Plans are required to support development proposals. They will be carefully assessed and must demonstrate how the long term efficiency of the proposed measures will be monitored and managed.
ACTIVE TRANSPORT				
2.39		✓	The Green Grid will deliver cycling and walking improvements and supports planning for active transport. When applied it should promote integrated and attractive walking and cycling.	The implementation of policy S2 and of green/blue infrastructure in general should deliver improved opportunities for walking and cycling alongside other environmental benefits.
S2.3	✓		Communities will have access to the day-to-day facilities they need and development will be well served by public transport and in walking distance of facilities. Large trip generating developments should support public transport use and new infrastructure. All major development will feature measures to provide improved active travel routes integrated with the surrounding area.	Assessment of development applications must consider the expected trip generation of the proposed use and include appropriate proposals for a proportion of trips being made by public transport and active modes. In particular for large developments this should include improved cycling/walking infrastructure on site and linking to the local area.

Local Plan Policies & References Supporting Sustainable Transport

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
S2.6	✓		The Green Grid network will be upgraded and expanded with larger developments making significant provision on-site.	Where opportunities arise through new development, the Development Management determination and assessment process, will seek proposals to support strengthening of the Borough Green Grid network. The Council will continue to work in partnership with KCC, EDC and HE to enhance and provide new Green Grid links. The implementation of policy S2 and of green/blue infrastructure in general should deliver improved opportunities for walking and cycling alongside environmental benefits.
5.152 – 5.164		✓	The development of a more comprehensive cycle and pedestrian route network is sought. Manual for Streets should be used.	Assessment of applications will consider the contribution of pedestrian/ cycling routes in line with policy M17 and other strategic policies including a future Dartford cycle/walking plan and other relevant strategic documents. Where new or upgraded routes are proposed, these will be assessed in line with Manual for Streets.
M17.2	✓		Travel Plans should set deliverable actions for the promotion and delivery of active and public travel measures to increase their uptake and reduce demand for less sustainable/ efficient transport and feature clear measures and actions to enable the objectives to be met.	Travel Plans will be assessed and must demonstrate the long term efficiency of the proposed measures through monitoring and management. . When assessing Travel Plans, the contribution of pedestrian/ cycling routes will be considered in line with policy M17 and other strategic policies.
M17.3	✓		Development must; provide footpaths and cycle routes, protect public rights of way and deliver new routes where opportunities	Development proposals that do not protect existing public rights of way will not be supported. Applications must

Local Plan Policies & References Supporting Sustainable Transport

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
			exist; support facilities for cyclists; include design features for people with mobility and sensory difficulties.	demonstrate that sufficient pedestrian/ cycling infrastructure will be provided and that the design of such infrastructure has been carefully considered and is accessible for all.
CENTRAL DARTFORD				
3.17		✓	New development in Central Dartford should contribute to the regeneration and vision for the area. This includes a requirement for continued and expanded public realm improvements and improved cycling and walking routes, provision of modern public transport and interchanges and provision of housing choice to grow a resident community.	Assessment of development proposals will consider the impact of the scheme on the wider Central Dartford area and adherence to the vision set by the Local Plan. Proposals on the whole must demonstrate that they contribute to the vision and do not prevent any aspect of the area's regeneration and public realm improvement from coming forward.
3.24 – 3.25		✓	The potential Crossrail project would bring benefits to Dartford Town Centre. There is opportunity for integrated public transport enhancements and enabling business investment in the town.	Land needed for Crossrail is safeguarded and development proposals that would prevent the project from coming forward will not be supported. The Council will encourage and support proposals that will improve public transport integration in the town centre, where they meet other Local Plan requirements.
D1.1b)	✓		Links across central Dartford will be improved, Dartford railway station/ public transport interchange and the opening up and creation of links along the River Darent are focuses for enhancement to improve walkability and public transport connectivity of the area	Assessment of development proposals will consider how the scheme contributes to the overall legibility and connectivity of Central Dartford. Proposals must contribute to improved pedestrian linkages and sites nearby the River Darent must demonstrate their impact on and contribution to improved riverside pedestrian and cycling improvements.

Local Plan Policies & References Supporting Sustainable Transport

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
D1.2b) – D1.2f)	✓		<p>c) the council will work with providers and landowners to reserve land of public/ community service provision</p> <p>f) The council and partners will work to increase public transport capacity and services, enhance walking and cycling and seek to integrate rail, bus and Fastrack, particularly at a new railway station with new rail connections.</p> <p>e) Access between the River Darent, railway station and Town Centre will be encouraged. The public realm, including wayfinding, will be upgraded to entice and improve active travel.</p>	The Council will actively work with partners to deliver long term accessibility improvements across the Central Dartford area from strategic planning through to scheme delivery. Assessment of development proposals in this area will consider the contributions made to the public realm and connectivity of the area.
D2.1	✓		<p>Development should align with the vision for Dartford Central set by diagram 5 which includes pedestrian friendly links. Development proposals should ensure the scheme is integrated into the wider setting and movement patterns and deliver schemes that contribute to shifting travel patterns to sustainable and active modes including through integration, layout, design, access and parking – including cycle parking provision.</p>	Assessment of development will consider the impact of the scheme on the connectivity of the wider site context.
D4.2	✓		Proposal at Westgate should reconnect historic routes/routes ensuring an east-west pedestrian route across the site	Any proposal at this specific site which does not provide the required routes will not be supported.
D5.2	✓		Proposals at Lowfield Street should enhance routes for pedestrians and cyclists and improve the existing pedestrian environment along Lowfield street	Any proposal at this specific site which does not provide the required routes/ route enhancements will not be supported.
D7.2	✓		Proposals along the riverside must promote connectivity and deliver pedestrian routes along both sides of the River Darent. Proposals in	Assessment of riverside development will assess if the proposal will improve the riverside environment and

Local Plan Policies & References Supporting Sustainable Transport

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
			the policy area must; improve Dartford railway station or access to it and respect the safeguarded railway land; contribute to new or improved pedestrian/ cycle routes across the ring road and railway line; provide pocket parks and clear walkable routes to existing open spaces and significant contribution to the green grid. Opportunities for station relocation or infrastructure for additional services and/or interchange should be fully explored. Development supporting a new station will be supported.	open up opportunities for active transport routes alongside or on the river. Applicable development proposals will be expected to provide/contribute to station (potentially a new station), cycle and walking improvements, access routes to the station and town centre.
EBBSFLEET AND SWANSCOMBE				
4.6		✓	Prominent resources, and factors vital to future prospects in the area, include; (2 nd bullet) The opportunity to integrate existing green and blue infrastructure and walking/cycling links to create a grid within and between Swanscombe, Ebbsfleet, the River Thames and the countryside south of the A2.	
E1.1	✓		Support for the continued creation of a 21 st century garden city at Ebbsfleet including encourage walking and cycling, and are neighbourhoods that are connected by modern public transport systems.	The Council will continue to work with the EDC in the promotion and planning of sustainable travel schemes, and in particular to ensure that provision in the Garden City links with wider Borough provisions and networks.
E1.4	✓		Provision of integrated and accessible transport systems, with walking, cycling and public transport designed to be the most attractive forms of travel.	The Council will continue to work with the EDC in the promotion and planning of sustainable travel schemes, and in particular to ensure that provision in the Garden City links with wider Borough provisions and networks. EDC will ensure planning proposals contribute to meeting this objective.

Local Plan Policies & References Supporting Sustainable Transport

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
E3.2 b	✓		Development in Ebbsfleet Garden City should ensure wherever possible that Swanscombe benefits with better public transport, including upgrades to or a wholly new Swanscombe railway station; and improvements to existing connections and the delivery of new green walking/cycling connections particularly towards the River Thames and Ebbsfleet International Station.	The Council will continue to work with the EDC in the promotion and planning of sustainable travel schemes, and in particular that opportunities achieve the provisions of this policy are delivered in Swanscombe.
E4.1 & 2.d	✓		Development of the part of Ebbsfleet Central within Dartford Borough should be a comprehensively planned strategic urban hub, with major new transport and community infrastructure. Proposals should provide a new public transport hub with ease of interchange with other public transport, and deliver major new walking and cycling connections.	The Council will continue to work with the EDC as master planning proposals are developed and brought forward, to ensure policy provisions are met and the opportunities for enhance sustainable transport provision afforded at Ebbsfleet Central are taken up.
E5	✓		Key elements of development in this area will include; a) A direct Fastrack route through to Bluewater/Ebbsfleet Central, and d) a pedestrian and cycle network linked to surrounding areas and Bluewater.	The Council will continue to work with the EDC in the delivery of these longer term identified schemes. EDC's development management function will ensure development proposals do not prejudice achievement of the identified provisions and contribute to establishing a wider network.
E6	✓		Land north of Swanscombe Area. Development in this area should provide Fastrack, pedestrian and cycle links to surrounding areas including Swanscombe.	Development proposals will be assessed by EDC development management which will take policy requirements into account.
DESIGN				
M1.1	✓		Development must incorporate a physical environment that incorporates attractive active travel options and provides permeability through and within	The design of a proposal will be assessed in accordance with relevant policies in the Plan to determine if design

Local Plan Policies & References Supporting Sustainable Transport

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
			the site through clear pedestrian and cycle linkages	sufficiently enables and promotes active travel.
5.152		✓	The design of a scheme can have significant impact on reducing travel and on the pattern and means of travel that the development will generate. Developments should promote walking, cycling and the use of public transport. This must be incorporated at master planning/ layout stage.	The design of a proposal will be assessed in accordance with relevant policies in the Plan to determine if design sufficiently enables and promotes active travel.
EMPLOYMENT / BLUEWATER				
5.191 – 5.192		✓	Development within employment areas should promote increased public transport uptake and enhanced active travel links. Transport Assessments and Travel Plans will most likely be required for employee and operational traffic. Services and shops, such as childcare facilities and cafes, may be accepted within employment areas depending on the existing provision and the existing employment / worker needs.	Assessment of applications will consider how the proposal increases and enables the use of public transport and active transport. Travel Plans will be assessed and must demonstrate the long term efficiency of the proposed measures through monitoring and management.
M21.1	✓		Identified employment areas are to be maintained with improved transport provision achieved.	Applications that seek to limit the ability for employment uses in the Identified Employment Areas will not be supported. Assessment of proposals within Identified Employment Areas will consider the overall impact of the scheme on transport provision.
M21.3	✓		Major development for office or research development should be located within easy walking distance of a railway station or Fastrack or incorporate measures outlined within a Travel Plan that reduce private vehicle movement during peak hours.	Assessment of development proposals will consider suitability of location in the context of the proposed use. Mitigation measures planned to limit private vehicle movement should be set in Travel Plans, which must demonstrate the long term efficiency of the proposed

Local Plan Policies & References Supporting Sustainable Transport

Local Plan Ref.	Policy	Supporting Text	Summary	Implementation and Delivery
				measures through monitoring and management.
M22.2	✓		Development in use classes C1, E and F at Bluewater will be permitted where impact on the highway is minimised and improved access by and to public and active transport is secured where appropriate. Particular focus should be given to measures to increase uptake of sustainable travel by employees and nearby communities.	Assessment of proposals at Bluewater will include a consideration of the proposed public and/or active travel enhancements included in the scheme.