

3. Delivery Plan and Programme of Investment

3.1 Introduction

3.1.1 **Chapter 3** sets out the overarching Delivery Plan and three-year Programme of Investment for the LIP. The Delivery Plan and associated transport measures form the framework for the development of the Programme of Investment which, in turn, is designed to meet our objectives, and to address the transport problems and opportunities identified in chapter 2.

Chapter 3 sets out:

- The Delivery Plan and the associated range of short and long-term measures/interventions, together with the priorities for implementation and how it links to the various Mayoral/Borough priorities (**section 3.2**);
- Confirmed/potential funding sources for implementing the Delivery Plan (**section 3.3**);
- The three-year indicative Programme of Investment for the period 2019/20 – 2021/22, together with information on the detailed annual spending programme for 2019/20 (**section 3.4**);
- Details of the methodology used for prioritising and monitoring progress of the Delivery Plan and Programme of Investment, and identification of potential risks and associated mitigation measures (**section 3.5**).

3.2 Delivery Plan

Principles and Priorities

3.2.1 The Delivery Plan has been developed to help achieve the overarching LIP objectives as well as to contribute to the delivery of the MTS priorities and outcomes and the Borough Manifesto vision and priorities. The driving principles behind the Delivery Plan are regeneration, community, health and wellbeing, crime and safety and the environment. These reflect the Mayor's vision to create a future London that is home to more people and a better place for people to live in; and the overarching aim for 80% of all journeys to be made on foot, by cycle or by public transport by 2041. They also reflect our Borough Manifesto vision to build on the borough's position as London's growth opportunity and ensure this change benefits every resident.

3.2.2 The priorities for implementing the Delivery Plan take into account such factors as the various transport problems and opportunities in the borough (chapter 2); indicators and targets (chapter 4); consultation and engagement outcomes (Annex C) and wider policy and programmes (Annex B). All parts of the Delivery Plan are of equal importance. However, from a geographic perspective there are certain areas of the borough where some elements of the plan require particular emphasis (see **Table 3.1** and **Figure 3.1**).

Table 3.1: Geographic priorities

Priorities	Areas of Emphasis
<p>Connecting people and places (Objectives A & B)</p>	<ul style="list-style-type: none"> • The main focus will be on improving north-south and orbital links within the borough, in particular, enhancing public transport, cycling and walking links between Marks Gate and Dagenham and to London Riverside from outside and within the borough. • Improving access by public transport, cycling and walking to local health, education, employment and shopping/leisure facilities will be a key focus, in particular: <ul style="list-style-type: none"> ▪ Health - access to King George and Queen’s Hospitals in the neighbouring boroughs of Redbridge and Havering; ▪ Education – access to borough schools and colleges, including Barking and Dagenham College in Rush Green and the Coventry University campus in Becontree Heath; ▪ Employment – access to major employment areas south of the A13, including Dagenham Dock and River Road industrial areas; ▪ Shopping/leisure – access to Barking Town Centre, Chadwell Heath and Dagenham Heathway.
<p>Promoting healthy, sustainable travel (Objectives C & D)</p>	<ul style="list-style-type: none"> • With high levels of deprivation and problems with obesity prevalent, measures to promote healthy, active travel will be implemented across Barking and Dagenham. Particular emphasis will be placed on engaging the borough’s schools and colleges. • Measures aimed at improving air quality in the borough will be focused on busy corridors and outside schools across the borough. Special attention will be placed on the three Air Quality Focus Areas in the borough – Barking Town Centre, Becontree Heath/Whalebone Lane and the A13 corridor.
<p>Improving safety and security (Objectives E & F)</p>	<ul style="list-style-type: none"> • There are no geographical priorities for road casualty reduction. Locations will be dictated by intelligent analysis of collision data. However, a number of key corridors have been identified as having high collision rates, including: <ul style="list-style-type: none"> ▪ A124 (Longbridge Road/Wood Lane); ▪ A1240 (Heathway); ▪ A1083 (Green Lane); ▪ A1112 (Whalebone Lane South). • The need for specific safety/security enhancements will take into account areas where such issues are important. Priority areas include stations, bus stops, parks and town centres.
<p>Creating better streets and places (Objectives G & H)</p>	<ul style="list-style-type: none"> • Measures aimed at tackling congestion, addressing issues of severance and creating ‘healthy streets’ will be implemented throughout the borough. However, there will be a particular emphasis along key corridors and at major junctions, including: <ul style="list-style-type: none"> ▪ The A13 corridor and major junctions including Movers Lane, Lodge Avenue, Renwick Road and Goresbrook Interchange; ▪ The A1306 corridor and Ballards Road gyratory; ▪ The A123 and A124 corridors into Barking Town Centre, including the Fanshawe Roundabout, London Road Roundabout and Ripple Road Gyratory; ▪ The A1240 (Heathway) and A118 (High Road) corridors; ▪ The ‘Merry Fiddlers’ junction and Civic Centre roundabout (convergence of Wood Lane, Green Lane, Whalebone South and Rainham Road North).

Figure 3.1: Map of geographic priorities

INSERT ANNOTATED BOROUGH MAP

Measures and Interventions

- 3.2.3 Details of the various measures and interventions that form the Delivery Plan are set out below and in **Table 3.2**, together with an indication of our approach to scheme delivery and how schemes align to the MTS priorities and outcomes and the Borough Manifesto vision and priorities. Experience gained implementing schemes in recent years, including the need for close partnership working with a range of stakeholders and exploring opportunities to adopt new, innovative approaches to scheme delivery; as well as learning from the best practice of others, has enabled us to develop a Delivery Plan with a more effective range of measures.
- 3.2.4 The Delivery Plan will focus principally on those smaller to medium sized schemes/initiatives that can be delivered by the Council and its partners in the short-medium term. Some of the more significant interventions required to meet LIP objectives and deliver Mayoral and borough priorities are set out in **Table 3.4** (Long-term Interventions).

Priority Area: Connecting People and Places

Key Delivery Plan Measures: *Public Transport Initiatives; Cycling/Walking Schemes; Highways/Public Realm Enhancements*

Delivery Plan Approach:

- Engaging with key partners/the wider community to identify areas of poor connectivity/accessibility and working with them to develop effective solutions;
- Investing in public transport, cycling and walking infrastructure;
- Delivering improved facilities and access for all, but particularly for more vulnerable groups such as the elderly and disabled people.

- 3.2.5 Delivery Plan measures/interventions proposed under this priority area will help deliver the LIP objectives around enhancing public transport connectivity to enable growth (**Objective A**) and improving accessibility for all to key services and facilities (**Objective B**). These typically include:

- Public transport initiatives – (e.g. new/improved infrastructure and services; introduction/expansion of bespoke travel services);
- Cycling and walking schemes – (e.g. new cycle/pedestrian routes); and
- Highways/public realm enhancements (e.g. station access/town centre improvements).

- 3.2.6 Our short-medium term priorities include:

- Securing capacity and access enhancements at Barking station to reduce overcrowding, improve passenger experience and support future passenger demand (see below);

- Securing additional capacity on key bus routes serving major growth areas such as London Riverside and Chadwell Heath to ease overcrowding, particularly at peak times, and support future housing growth;
- Implementing new cycling and walking links to key destinations, in particular the key 'hubs' of Barking Town Centre, Barking Riverside, Dagenham Heathway and Chadwell Heath to improve inter-borough connectivity and promote sustainable mode shift;
- Exploring the potential for demand-responsive bus services to connect to those parts of the borough which are currently poorly served by public transport;
- Maintaining and, where possible, enhancing the Borough's bespoke travel services, such as our Disabled Access and School Transport services, as a means of meeting the diverse travel needs of those individuals less able to access conventional public transport;
- Continuing the bus stop accessibility improvements programme, to provide disabled passengers with safe, accessible boarding facilities at bus stops, as required under the Equality Act;
- Continuing our station access and shopping parade improvements programme, as a means of making transport hubs and town and district centres in the borough accessible to all. Potential measures may include the provision of new or improved footways, accessibility improvements for disabled people and enhanced cycle parking and related infrastructure;
- Investigating the potential for replacing subways and footbridges with surface level crossings to meet the access needs of the mobility impaired and provide benefits to pedestrians and cyclists. Such schemes will also help reduce severance and address concerns around safety and security. A priority for the Council remains securing improved crossing facilities on the A12 to provide improved connectivity between Marks Gate and Chadwell Heath.

Priority Project: Barking Station Improvements

The Grade II listed Barking Station is one of the busiest interchange stations in London. Around 12.8 million passengers passed through the station in 2016/17.



The current Essex Thameside rail franchise commits the operator, C2C, to deliver a range of capacity and access improvements at Barking station by December 2019. This includes the remodelling/decluttering of the station concourse; the installation of additional ticket barriers; the provision of step-free access to platforms; new retail units and improved passenger information.



A planning application is due to be submitted by the end of 2018 with improvement works anticipated to commence in early 2019.

The Council previously committed to providing £900,000 towards the cost of these improvement works and has identified a similar amount to be funded from the Council's LIP allocation in 2019/20.

Priority Area: Promoting Healthy, Sustainable Travel

Key Delivery Plan Measures: *'Behaviour Change' Initiatives; Cycling/Walking Schemes; Public Transport Initiatives; Traffic Management/Reduction Measures; Highways/Public Realm Enhancements*

Delivery Plan Approach:

- Reducing the need to travel, especially by car;
- Promoting the greater use of cycling and walking, especially for shorter journeys and public transport for longer journeys;
- Reducing transport related pollution/disturbance.

3.2.7 The principal Delivery Plan measures/interventions to encourage active travel to improve health and wellbeing (**Objective C**) and facilitate green travel to improve air quality and reduce the impact on the environment (**Objective D**) are highlighted below and typically include:

- 'Behaviour Change' initiatives - (e.g. 'active'/'green' travel programmes; travel plans);
- Cycling and walking schemes - (e.g. new cycle/pedestrian facilities; cycle training programmes);

- Public transport initiatives – (e.g. improved passenger information; low emission/quieter vehicles);
- Traffic management/reduction measures - (e.g. vehicle restrictions; ‘cleaner’ fleets/vehicles);
- Highways/public realm enhancements - (e.g. ‘green’ infrastructure; use of innovative materials).

3.2.8 Our short-medium term priorities include:

- Developing and monitoring sustainable travel strategies for schools, businesses and new developments as a focus for reducing travel by car and increasing mode share of journeys by public transport, cycling and walking. A key priority is the need to manage and mitigate against the impacts of school travel and freight operations in the borough;
- Continuing our highly successful borough-wide ‘Active Travel’ and cycle training programmes as a means of facilitating healthier and ‘greener’ travel practices amongst children and adults (see below). A key focus will be on encouraging more school-aged children to walk and cycle;
- Implementing more pedestrian and cycling schemes. Walking and cycling are low cost, healthy and environmentally friendly means of travel and form an important component of our Delivery Plan. A key focus of our work here will be the implementation of safe, continuous cycle routes and supporting infrastructure as part of TfL’s ‘Quietways’ programme and delivering ‘Healthy Routes’ to create attractive, safe and accessible walking routes to schools and other key trip generators;
- Promoting the use of cleaner/environmentally friendly vehicles to reduce emissions and improve air quality in the borough. As well as encouraging TfL/bus operators to introduce more hybrid and electric vehicles on borough bus routes, the Council will consider ways of introducing new, low-emission vehicles as part of its fleet management plans and will look to install additional electric vehicle charging facilities, including rapid charging points, throughout the borough;
- Encouraging the implementation of ‘green’ infrastructure, including the greater use of ‘parklets’, street trees, green walls and Sustainable Drainage Systems (SuDS) as a means of improving air quality and reducing environmental impact. Through our partnership with University College London (UCL) we will also look to trial the use of ‘innovative’ surface materials as a means of improving local air quality and reducing disturbance from vehicle noise;
- Introducing vehicle management measures. Measures such as vehicle restrictions and better signing can help alleviate environmental concerns by routing HGVs and other high-polluting vehicles away from sensitive areas, such as residential streets and schools. We will also explore the potential for designating Low Emission Streets/Zones in those areas with particularly poor air quality, including the three Air Quality Focus Areas in the borough;
- Providing real time passenger information via new dynamic information systems at key destinations and trip generators. We will work closely with TfL and transport operators to ensure all stations and bus stops are fitted

with up-to-date maps, timetables and other travel information to provide passengers with clear information on destinations and service frequency.

Priority Project: Borough-wide Healthy/Active Travel Programme

To assist the Council in achieving its Borough Manifesto priorities of enabling social responsibility and keeping adults of all ages and children healthy and safe, and in line with the Growth Commission's recommendations that 'no one should be left behind', it is proposed to continue the successful programme of cycle training across the borough; and to assist schools and businesses with developing travel plans and delivering small scale physical measures such as cycle parking.



The Council will also continue its successful partnership agreement with Sustrans and Living Streets to deliver a range of cycling and walking events and initiatives which have proved popular amongst residents and schools and have helped to encourage the take-up of more healthy, active lifestyles. These include initiatives such as led cycle rides and walks around the borough; Walk Leader training to train volunteers to lead walks; and engagement with schools to promote events such as Walk to School week.

Priority Area: Improving Safety and Security

Key Delivery Plan Measures: *Highways/Public Realm Enhancements; Traffic Management/Reduction Measures; 'Behaviour Change' Initiatives; Cycling/Walking Schemes; Public Transport Initiatives*

Delivery Plan Approach:

- Adopting a 'Vision Zero' approach to eliminate all road casualties;
- Reducing crime, and anti-social behaviour on buses/trains and at stations.

3.2.9 The Council's LIP priorities around safety and security include reducing the number of casualties on our roads (**Objective E**) and improving safety and security across the transport network (**Objective F**). Delivery Plan measures/interventions to achieve this typically include:

- Highways/public realm enhancements – (e.g. corridor/junction improvement schemes; new street lighting);
- Traffic management/reduction measures – (e.g. traffic calming/speed reduction measures; effective enforcement);
- 'Behaviour Change' initiatives – (e.g. road safety education/training programmes; publicity campaigns);
- Cycling and walking schemes – (e.g. enhanced cycle/pedestrian facilities);
- Public transport initiatives – (e.g. station access improvements).

3.2.10 Our short-medium term priorities include:

- Delivering improvements to the local road network to improve safety, particularly along those corridors and at junctions experiencing a high number of collisions. Priority locations include Longbridge Road; The Heathway; Green Lane; and Whalebone Lane South;
- Implementing/upgrading crossing facilities, to improve conditions for pedestrians and cyclists, as well as other vulnerable road users, and to increase accessibility across busy roads. New crossing facilities will be considered where safety problems are particularly prevalent;
- Exploring innovative traffic calming and reduction measures, such as filtered permeability schemes, to help meet the safety concerns of residents and vulnerable road users. Locations will be favoured where there is a good case on safety grounds, such as outside schools, combined with strong support from the local community;
- Implementing further 20 mph zones to help reduce traffic speeds on the borough's road network. A key focus will be on residential streets and areas outside schools. We will also explore the potential for introducing a borough-wide 20 mph zone if it can be demonstrated that it is cost effective and will result in significant reductions in vehicle speeds and the number and severity of collisions;
- Expanding our road safety education and training programmes to ensure we meet our targets to reduce the number and severity of casualties on our roads. The focus for road safety training will be on cyclists, pedestrians and powered two-wheelers – some of the most vulnerable road users and who

are involved in a disproportionate amount of collisions. Targeted publicity campaigns will be carried out in the areas of speed (a particular problem in some areas of the borough), child safety, and drink/drug driving. We will also continue the highly successful 'Safe Drive, Stay Alive' campaign targeted at new and pre-drivers in the borough;

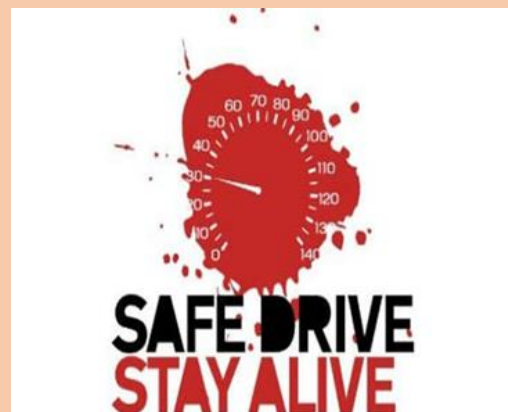
- Introducing CCTV cameras, new street lighting and other safety and security measures as part of our ongoing work to improve conditions at stations, bus stops, car parks and shopping parades. In addition, we will continue to make sure new developments achieve the 'Secured by Design' standard and that car parks achieve the 'Park Mark' award, and that improved safety and security information is provided for pedestrians, cyclist and other vulnerable transport users.

Priority Project: School Gate Safety and Access Improvements

We will continue our borough-wide school gate safety and access improvements programme in support of our LIP objectives of reducing the number of casualties on our roads, improving access for all and promoting healthy/sustainable travel; and to complement our various corridor/neighbourhood initiatives.

The programme will focus on the development and delivery of a comprehensive programme of road safety, traffic management and access improvements (and other appropriate highways/public realm interventions) outside and on the approach to borough primary schools and key secondary school locations. In addition to any physical improvements, we will also provide a definitive road safety education and active travel programme at all borough schools.

Locations will be selected on a priority basis, with those schools experiencing the most pressing road safety issues (i.e. number and severity of casualties); problems with congestion/poor air quality; and poor access by cycling and walking and public transport dealt with first. The nature of the measures implemented will be determined by the type of issues face. Community engagement will be undertaken to ensure that proposals are fully supported by the schools and local community.



Priority Area: Creating Better Streets and Places

Key Delivery Plan Measures: *Highways/Public Realm Enhancements; Traffic Management/Reduction Measures; Cycling/Walking Schemes; Public Transport Initiatives*

Delivery Plan Approach:

- Securing improvements to the local street scene and historic environment, adopting the 'Healthy Streets' approach;
- Making the most effective and efficient use of existing infrastructure;
- Better management of the road network;
- Interventions/schemes to limit traffic delays and reduce bottlenecks.

3.2.11 The principal Delivery Plan measures to be adopted to help create better streets and places in Barking and Dagenham and to achieve our LIP objectives of managing our road space more efficiently to tackle congestion (**Objective G**) and transforming the public realm to create healthy, inclusive places (**Objective H**), are outlined below and typically include:

- Highways/public realm enhancements - (e.g. 'DIY streets' schemes);
- Traffic management/reduction measures - (e.g. vehicle restrictions; freight consolidation);
- Public transport initiatives - (e.g. bus priority measures);
- Cycling and walking schemes - (e.g. new/enhanced cycle and pedestrian facilities).

3.2.12 Our short-medium term priorities include:

- Developing a high-quality public realm through a programme of street scene enhancements, delivering improvements against the ten 'Healthy Streets' indicators. A key priority will be to implement further improvements to forecourt areas around stations, our main shopping centres/parades and other key trip generators such as schools and visitor attractions. A 'co-design' approach, involving the local community and other stakeholders, will be central to the development and delivery of all schemes;
- Securing improvements to the borough road network, particularly along key corridors and at junctions, in order to reduce traffic bottlenecks and bus delays, reduce severance and create 'liveable' places. Priority locations are shown in **Table 3.1** and include Longbridge Road and Ripple Road in Barking; the Heathway and Ballards Road gyratory in Dagenham; Chadwell Heath High Road; and the 'Merry Fiddlers' junction in Becontree Heath;
- Developing a borough-wide freight strategy, setting out proposals to mitigate the impacts of freight activities and operations in Barking and Dagenham. Working closely with businesses, freight operators and other key stakeholders we will explore the benefits/practicalities of retiming deliveries; introducing freight consolidation initiatives; and examine the potential for moving more freight by rail and river;

- Maximising the potential of technology and intelligent transport systems, such as Variable Message Signing (VMS) in town centres and at car parks, and Split Cycle Offset Optimisation Technique (SCOOT) at traffic signals, as a means of helping to relieve the pressure on our busy road network;
- Implementing carriageway and footway resurfacing schemes. These will continue to be assessed and prioritised on a needs basis and implemented via the Council's Highway Improvement Programme. Packages of other highway maintenance schemes, including improvements to the Principal Road network in the borough, routine repairs and drainage improvements, will be undertaken, subject to the availability of funding;
- Reviewing and, where appropriate, updating the Council's Highways Asset Management Plan to ensure a more coordinated approach to the implementation of all transport schemes, maintenance programmes and utilities works to minimise the impact on the highway network and optimise the integrity, quality and value of our transport assets.

Priority Project: 'DIY' Healthy Streets

The 'DIY' Healthy Streets programme seeks to build on the success of our two previous DIY Streets projects, including the award-winning Marks Gate scheme, with the aim of increasing levels of walking and cycling across Barking and Dagenham.

Delivered in partnership with a range of stakeholders and combining community-led street design, behaviour change programmes and infrastructure improvements, the project will seek to identify and remove the barriers to walking and cycling at various locations in the borough.

As experts in their area, the local community will hold the keys to change and interventions will vary from area to area. Measures may typically include traffic-calming/reduction measures; new cycling and walking facilities; and place-making features. To complement the infrastructure works, a range of active travel initiatives will be rolled out, including, for example, the setting up of cycle training and walking group programmes for adults and children.



Table 3.2: Delivery Plan measures and interventions

Delivery Plan Measures/ Interventions	MTS Priorities/Outcomes										Borough Manifesto Vision/Priorities						
	Changing the transport mix	Healthy Streets and healthy people				A good public transport experience			New homes and jobs		One Borough. One Community. No-one left behind.						
		Active	Safe	Efficient	Green	Connected	Accessible	Quality	Good Growth	Unlocking	Health and Wellbeing	Employment and Enterprise	Safety	Skills and Education	Environment	Community Engagement	Housing
LIP Priority: Connecting people and places					Objective A: Enhancing public transport connectivity to enable growth Objective B: Improving accessibility for all to key services and facilities												
Barking Station capacity/ access improvements	✓		✓			✓	✓✓	✓✓	✓	✓			✓✓		✓		✓
Bus route capacity enhancements	✓✓		✓	✓	✓	✓✓	✓✓	✓✓	✓✓	✓✓			✓	✓	✓	✓	✓
New cycling/walking links	✓✓	✓✓	✓	✓	✓✓	✓			✓✓		✓✓	✓	✓	✓	✓✓	✓	
Demand-responsive bus services	✓✓		✓	✓	✓	✓✓	✓✓	✓✓	✓✓	✓			✓	✓	✓	✓	✓
Enhancing the borough's bespoke travel services	✓		✓	✓	✓	✓✓	✓✓	✓			✓	✓	✓	✓	✓	✓	
Bus stop accessibility enhancements	✓	✓	✓				✓✓	✓			✓	✓	✓	✓			
Station access/shopping parade improvements	✓		✓✓	✓	✓	✓	✓✓	✓				✓	✓✓	✓	✓✓	✓	

Delivery Plan Measures/ Interventions	MTS Priorities/Outcomes										Borough Manifesto Vision/Priorities											
	Changing the transport mix	Healthy Streets and healthy people				A good public transport experience			New homes and jobs		One Borough. One Community. No-one left behind.											
		Active	Safe	Efficient	Green	Connected	Accessible	Quality	Good Growth	Unlocking	Health and Wellbeing	Employment and Enterprise	Safety	Skills and Education	Environment	Community Engagement	Housing					
Highway crossing access improvements	✓	✓	✓✓			✓	✓					✓	✓✓	✓	✓✓	✓						
LIP Priority: Promoting healthy, sustainable travel										Objective C: Encouraging active travel to improve health and wellbeing							Objective D: Facilitating green travel to improve air quality and reduce the impact on the environment					
Sustainable transport strategies for schools/ businesses/developments	✓✓	✓✓	✓	✓✓	✓✓				✓			✓✓	✓	✓	✓	✓✓	✓					
Borough-wide active travel/cycle training programme	✓✓	✓✓	✓✓	✓	✓✓				✓			✓✓	✓	✓✓	✓	✓✓	✓					
Pedestrian/cycling improvements	✓✓	✓✓	✓	✓	✓✓	✓			✓✓			✓✓	✓	✓	✓	✓✓	✓					
Cleaner/environmentally friendly vehicles	✓	✓		✓	✓✓			✓				✓✓				✓✓	✓					
Implementing 'green' infrastructure	✓	✓			✓✓			✓				✓✓				✓✓	✓					
Selective vehicle management measures	✓✓	✓	✓✓	✓	✓✓				✓			✓✓		✓		✓✓	✓					

Delivery Plan Measures/ Interventions	MTS Priorities/Outcomes										Borough Manifesto Vision/Priorities						
	Changing the transport mix	Healthy Streets and healthy people				A good public transport experience			New homes and jobs		One Borough. One Community. No-one left behind.						
		Active	Safe	Efficient	Green	Connected	Accessible	Quality	Good Growth	Unlocking	Health and Wellbeing	Employment and Enterprise	Safety	Skills and Education	Environment	Community Engagement	Housing
Real time passenger information	✓	✓		✓✓		✓	✓	✓✓	✓			✓		✓		✓	✓
LIP Priority: Improving safety and security										Objective E: Reducing the number of casualties on our roads Objective F: Improving safety and security across the transport network							
Corridor/junction road safety improvements	✓	✓	✓✓				✓	✓			✓		✓✓			✓	
Pedestrian/cyclist crossing facilities	✓	✓	✓✓			✓	✓				✓		✓✓			✓	
Innovative traffic calming/ reduction measures	✓✓	✓	✓✓	✓	✓			✓			✓		✓✓		✓	✓	
20mph zones	✓	✓	✓✓		✓						✓		✓✓		✓	✓	
Road safety education/ training	✓	✓	✓✓								✓		✓✓			✓	
Public safety and security enhancements	✓	✓	✓✓					✓			✓		✓✓			✓	

Delivery Plan Measures/ Interventions	MTS Priorities/Outcomes										Borough Manifesto Vision/Priorities						
	Changing the transport mix	Healthy Streets and healthy people				A good public transport experience			New homes and jobs		One Borough. One Community. No-one left behind.						
		Active	Safe	Efficient	Green	Connected	Accessible	Quality	Good Growth	Unlocking	Health and Wellbeing	Employment and Enterprise	Safety	Skills and Education	Environment	Community Engagement	Housing
LIP Priority: Creating better streets and places					Objectives G: Managing our road space more efficiently to tackle congestion Objective H: Transforming the public realm to create healthy, inclusive places												
Street scene enhancements	✓✓	✓✓	✓✓	✓✓	✓✓		✓	✓			✓	✓	✓✓	✓	✓✓	✓	
Corridor/junction congestion improvements	✓✓	✓	✓	✓✓	✓✓	✓		✓✓		✓	✓	✓	✓	✓✓	✓	✓	
Borough-wide freight strategy	✓		✓	✓✓	✓✓				✓		✓	✓	✓		✓✓	✓	
Maximising technology/ intelligent transport systems	✓		✓	✓✓	✓	✓		✓				✓	✓		✓		
Carriageway/footway resurfacing schemes	✓	✓	✓✓	✓	✓			✓			✓	✓	✓✓		✓	✓	
Highways Asset Management Plan review	✓		✓	✓✓	✓			✓				✓	✓		✓	✓	
KEY: ✓✓ High contribution to priorities/outcomes ✓ Lower contribution to priorities/outcomes																	

TfL Business Plan

3.2.13 In developing the Delivery Plan, the Council has also considered the Mayor's aspirations to deliver the main projects in TfL's Business Plan and the milestones associated with these. Details of the TfL projects which have implications for the borough and the opportunities that exist for undertaking complementary works in support of these schemes are set out in **Table 3.3**.

Table 3.3: TfL Business Plan schemes in Barking and Dagenham

TfL Project	Date	Borough Implications	Complementary Works
Opening of Elizabeth Line	2019	Commencement of full services likely to result in significant increase in passenger numbers arriving at/departing Chadwell Heath station, particularly at peak travel times.	Various public realm/station accessibility enhancements undertaken along Station Road as part of Crossrail Complementary Measures Programme in 2017. Scope for further pedestrian/cyclist improvements along Valence Avenue and the High Road.
Barking Riverside Overground extension	2021	Opening of Overground extension forecast to result in significant additional passenger interchange movements at Barking station and potential overcrowding on platforms/footbridge.	Range of station capacity/access improvements will be delivered in 2019 as part of C2C franchise commitments. Recent Barking station capacity study identifies the need for additional footbridge and possible new entrance at the western end of the station.
Ultra Low Emission Zone (ULEZ) expansion	2021	Expansion of ULEZ to North Circular could result in additional traffic/congestion on the borough road network and worsening air quality, especially from non-compliant vehicles seeking to avoid the charging zone.	Potential for introducing Low Emission Neighbourhoods (LENs) in those parts of the borough bordering the ULEZ, particularly Barking Town Centre which is an Air Quality Focus Area.
Modernisation of the Circle, District, Hammersmith & City and Metropolitan lines	2023	The Four Line Modernisation programme will result in 32 trains per hour running on the Circle, District and Hammersmith & City lines, adding significant extra capacity to the Underground network in the borough. However, significant improvements to station capacity/access arrangements are also required to accommodate the expected increase in passenger numbers.	Station access improvements were delivered outside Becontree station in 2017. Potential for delivering similar improvements outside Upney, Dagenham Heathway and Dagenham East stations during the course of the LIP. In the longer-term step-free access improvements are required at Becontree and Dagenham East stations.

Long-term Interventions to 2041

3.2.14 In the longer-term the Council considers that a number of significant, but currently unfunded, transport schemes and interventions will be required to ensure the delivery of Mayoral and borough priorities. These are summarised in **Table 3.4**.

Table 3.4: Long-term interventions

Scheme/ Intervention	Scope/Outcomes	Timeframe	Indicative Cost (£m)	Funding Source(s)	Alignment to Mayoral/ Borough Priorities/Outcomes
Rail Network/Infrastructure Improvements					
Barking - Stratford Rail Link	<ul style="list-style-type: none"> A direct rail connection from Barking to Stratford, served by existing C2C or future Elizabeth line services, to enhance connectivity to this important sub-regional hub and maximise the economic regeneration/growth potential of Barking Town Centre. 	By 2026	TBC	TfL, Network Rail, Developers	<p><i>MTS Outcomes:</i> Connected; Good Growth; Unlocking</p> <p><i>Borough Priorities:</i> Employment & Enterprise; Housing</p>
New Overground Station at Castle Green	<ul style="list-style-type: none"> The provision of a station at Castle Green on the recently approved London Overground Extension, to support the delivery of over 15,000 new homes in the area. 	By 2026	TBC	TfL, Central Government, BRL, Other developers	<p><i>MTS Outcomes:</i> Connected; Good Growth; Unlocking</p> <p><i>Borough Priorities:</i> Employment & Enterprise; Housing</p>
New C2C Station at Dagenham East	<ul style="list-style-type: none"> A new C2C mainline rail stop at Dagenham East station to bolster the ambitious plans for Londoneast-uk including the planned development of film studios. 	By 2026	TBC	C2C, TfL, Network Rail, LBBD, Developers	<p><i>MTS Outcomes:</i> Connected; Good Growth; Unlocking</p> <p><i>Borough Priorities:</i> Employment & Enterprise; Housing</p>

Scheme/ Intervention	Scope/Outcomes	Timeframe	Indicative Cost (£m)	Funding Source(s)	Alignment to Mayoral/ Borough Priorities/Outcomes
Other Station Improvements	<ul style="list-style-type: none"> Improvements to and the longer-term redevelopment of key borough transport interchanges of Barking, Dagenham Dock, Dagenham Heathway and Becontree stations to improve access, meet future passenger demand and unlock new homes. 	By 2031	TBC	C2C, TfL, Network Rail, LBB, Developers	<p><i>MTS Outcomes:</i> Accessible; Quality; Good Growth; Unlocking</p> <p><i>Borough Priorities:</i> Employment & Enterprise; Safety; Housing</p>
Overground Extension - Barking Riverside to Abbey Wood	<ul style="list-style-type: none"> A future onwards extension of the Barking-Gospel Oak line from Barking Riverside to Abbey Wood to link to Crossrail services and maximise the growth potential of London Riverside and the wider sub-region. 	By 2031	TBC	TfL, Network Rail, LBB, RBG, LBB, Developers	<p><i>MTS Outcomes:</i> Connected; Good Growth; Unlocking</p> <p><i>Borough Priorities:</i> Employment & Enterprise; Housing</p>
DLR Extension – Galleons Reach – Barking Station	<ul style="list-style-type: none"> A future onwards extension of the DLR from Galleons Reach to Barking Station to enhance connectivity to the Royal Docks and maximise the economic regeneration/growth potential of Barking Town Centre/London Riverside. 	By 2036	TBC	Central Government, C2C, TfL, LBB, Developers	<p><i>MTS Outcomes:</i> Connected; Good Growth; Unlocking</p> <p><i>Borough Priorities:</i> Employment & Enterprise; Housing</p>
HS1 Station at Barking/ Dagenham Dock	<ul style="list-style-type: none"> Provision of new interchange station at Barking Station and/or Dagenham Dock to provide improved links between east London and central London, SE England and Europe and maximise the growth potential of Barking Town Centre/London Riverside. 	By 2041	TBC	Central Government, TfL, Network Rail, LBB, Developers	<p><i>MTS Outcomes:</i> Connected; Good Growth; Unlocking</p> <p><i>Borough Priorities:</i> Employment & Enterprise; Housing</p>

Scheme/ Intervention	Scope/Outcomes	Timeframe	Indicative Cost (£m)	Funding Source(s)	Alignment to Mayoral/ Borough Priorities/Outcomes
Bus and Transit Network/Infrastructure Improvements					
Upper Roding Crossing	<ul style="list-style-type: none"> A new bus/transit river crossing between Abbey Road and Quay Road/Freshwater Road in Barking Town Centre to link Barking to Gallions Reach and the Royal Docks and support the development of new homes/jobs in the Town Centre. 	By 2021	£8m - £10m	TfL, LBBD, Central Government, Developers	<p><i>MTS Outcomes:</i> Connected; Accessible; Quality; Good Growth; Unlocking</p> <p><i>Borough Priorities:</i> Employment & Enterprise; Environment; Housing</p>
Lower Roding Crossing	<ul style="list-style-type: none"> A new bus/transit river crossing, linking Barking Riverside with Beckton in Newham, to address the significant severance issues caused by the River Roding; link London Riverside to the Royal Docks, including Crossrail at Custom House and the DLR extension to Thamesmead; and act as a catalyst for the regeneration of existing industrial areas around Creekmouth/River Road and help the delivery of Stage 4 of Barking Riverside. 	By 2026	TBC	TfL, LBBD, Central Government, BRL, Other developers	<p><i>MTS Outcomes:</i> Connected; Accessible; Quality; Good Growth; Unlocking</p> <p><i>Borough Priorities:</i> Employment & Enterprise; Environment; Housing</p>
'City in the East' Transit	<ul style="list-style-type: none"> A north-south transit system connecting Marks Gate/Chadwell Heath to Barking Riverside/Dagenham Dock to address severance and support modal shift; An east-west transit system connecting the key town centres and growth areas in London Riverside to kick-start new developments and support modal shift. 	By 2031	TBC	TfL, LBBD, Developers	<p><i>MTS Outcomes:</i> Connected; Accessible; Quality; Good Growth; Unlocking</p> <p><i>Borough Priorities:</i> Employment & Enterprise; Environment; Housing</p>
New/Improved Bus Connections	<ul style="list-style-type: none"> New/Improved bus connections to stations and other public transport 	By 2031	TBC	TfL, LBBD, Developers	<p><i>MTS Outcomes:</i></p>

Scheme/ Intervention	Scope/Outcomes	Timeframe	Indicative Cost (£m)	Funding Source(s)	Alignment to Mayoral/ Borough Priorities/Outcomes
	interchanges and health and education facilities across the borough and wider sub-region to support modal shift, improve accessibility and support growth.				Connected; Accessible; Quality; Good Growth; Unlocking <i>Borough Priorities:</i> Employment & Enterprise; Skills & Education; Environment; Housing
River Navigation/Infrastructure Improvements					
River Passenger Services to/from Barking Riverside	<ul style="list-style-type: none"> Introduction of timetabled river passenger services to/from Barking Riverside to provide the borough with additional cross-river connectivity, a direct transport link to the key employment hubs of Canary Wharf and central London and relieve pressure on the local road/public transport networks. 	By 2021	TBC	GLA, TfL, PLA, Service Operators, Pier Owners, BRL, Other developers	<i>MTS Outcomes:</i> Green; Connected; Quality; Good Growth; Unlocking <i>Borough Priorities:</i> Health & Wellbeing; Employment & Enterprise; Safety; Environment; Housing
Highway Network/Infrastructure Improvements					
A13 Junction Improvements	<ul style="list-style-type: none"> Securing improvements to the Movers Lane, Lodge Avenue and Renwick Road junctions on A13 to address issues of congestion, road safety and poor air quality and to enhance north/south connectivity. 	By 2026	TBC	TfL, LBBB, BRL, Other developers	<i>MTS Outcomes:</i> Safe; Efficient; Green; Connected; Quality; Unlocking <i>Borough Priorities:</i> Health & Wellbeing; Employment & Enterprise; Safety; Environment
A13 Riverside Tunnel	<ul style="list-style-type: none"> Relocating a 1.3km stretch of the A13 at Castle Green into a tunnel to improve traffic flow and air quality and to reduce severance in the area. Also offers the potential to deliver up to 15,000 new homes and 7,000 new jobs in the area, as well as helping to improve the 	By 2031	TBC	TfL, LBBB, Developers	<i>MTS Outcomes:</i> Safe; Efficient; Green; Connected; Quality; Unlocking <i>Borough Priorities:</i>

Scheme/ Intervention	Scope/Outcomes	Timeframe	Indicative Cost (£m)	Funding Source(s)	Alignment to Mayoral/ Borough Priorities/Outcomes
	character of the surrounding environment for the benefit of existing communities.				Health & Wellbeing; Employment & Enterprise; Safety; Environment; Community Engagement
Cycling and Walking Network/Infrastructure Improvements					
Barking - Chadwell Heath Strategic Cycle Link	<ul style="list-style-type: none"> A new segregated cycleway linking Barking to Crossrail services at Chadwell Heath to promote sustainable mode shift, help reduce congestion on the borough road network, improve local air quality and assist in the development of an attractive, healthy and active borough. 	By 2026	TBC	TfL, LBBD, Developers	<p><i>MTS Outcomes:</i> Active; Safe; Efficient; Green; Connected; Good Growth</p> <p><i>Borough Priorities:</i> Health & Wellbeing; Safety; Environment; Community Engagement</p>
Cycle Superhighway 3 Extension	<ul style="list-style-type: none"> An eastwards extension of Cycle Superhighway 3 to Dagenham Dock to encourage greater levels of cycling and enhance connectivity to and within the London Riverside Opportunity Area. 	By 2026	TBC	TfL, Developers	<p><i>MTS Outcomes:</i> Active; Safe; Efficient; Green; Connected; Good Growth</p> <p><i>Borough Priorities:</i> Health & Wellbeing; Safety; Environment; Community Engagement</p>

Source: LBBD Draft Local Plan/Infrastructure Delivery Plan (2018)

3.3 Funding Sources

- 3.3.1 The principal source of funding to implement the Delivery Plan will be the three-year Healthy Streets funding allocation from TfL, which comprises a range of formula, discretionary and strategic funding sources. The breakdown of the allocation for Barking and Dagenham is set out in **Table 3.5** and currently comprises £1.477 million in 2019/20 through the formula-based Corridors, Neighbourhoods and Supporting Measures Programme and Local Transport Fund and an indicative £2.954 million for the period 2020/21 – 2021/22.
- 3.3.2 Funding support for the upkeep of borough assets, such as the principal road network and bridge structures, has been reduced across London while TfL identifies a new, long-term funding stream for this work. Consequently, there is no funding available for the borough in 2019/20 and funding for subsequent years is still to be confirmed. In addition, the Council is not currently in receipt of any Liveable Neighbourhoods funding, but plans to submit a bid for funding by December 2018 and will look to make additional funding bids in subsequent years.
- 3.3.3 The Council is currently working with TfL to develop a number of strategic cycling and bus priority schemes to be implemented in Barking and Dagenham over the course of the Delivery Plan (see paragraphs 3.4.5 – 3.4.8 for details). However, no funding has yet been confirmed for these schemes.

Table 3.5: LBBD Healthy Streets funding allocation: 2019/20 – 2021/22

Funding Type	Programme	2019/20 (Confirmed)	2020/21 (Indicative)	2021/22 (Indicative)
Formula	Corridors, Neighbourhoods and Supporting Measures	£1,377,000	£1,377,000	£1,377,000
	Local Transport Fund	£100,000	£100,000	£100,000
Discretionary	Liveable Neighbourhoods	-	-	-
	Borough Assets	£0	TBC	TBC
Strategic*	Bus Priority	-	-	-
	Borough Cycling	-	-	-
	Other Healthy Streets	-	-	-
TOTAL:		£1,477,000	£1,477,000	£1,477,000

* Strategic schemes subject to separate allocations/bidding process

- 3.3.4 To support the implementation of the Delivery Plan, there is a range of other transport and related funding available to the Council from various sources,

including the GLA, developers and other third parties. In addition, the Council's capital budget is a potential source of funding for projects, particularly highways maintenance schemes. **Table 3.6** provides a summary of the sources and levels of funding available over the next three years which includes:

- Circa £2.9 million in 2019/20 towards footway reconstruction and carriageway resurfacing works as part of the Council's Borough-wide Highways Improvement Programme;
- Around £400,000 through the GLA's 'Green Capital' initiative to implement a new cycling and walking greenway and linear park in Thames View in the south of the borough;
- Up to £120,000 public health grant towards the cost of running the Council's highly successful cycle training and active travel programmes;
- Over £1.1 million through the Heritage Lottery Fund towards streetscape and conservation area improvements in Barking Town Centre;
- Over £800,000 of S106 funding for a range of transport, highways and public realm improvements across the borough, including locations in and around Barking Town Centre and Dagenham Dock.

Table 3.6: Other funding sources: 2019/20 – 2021/22

Funding Source	Programme	2019/20	2020/21	2021/22
Council Capital/ Revenue	Highways Improvement Programme	£2,920,000	TBC	TBC
	Public Health Grant	£40,000	£40,000	£40,000
GLA	Green Capital Grant (The Ripple Nature Reserve and Greenway)	£397,000	-	-
Heritage Lottery Fund (HLF)	Barking Town Centre Heritage Project	£500,000	£370,000	£275,000
Developer Funding (e.g. S106/CIL)	Various highways/public realm improvements	TBC	TBC	TBC
TOTAL:		£3,857,000	£410,000	£315,000

3.3.5 During the course of the LIP, we will look to secure additional funding through our partnership with a range of other stakeholders, including:

- **The Greater London Authority (GLA):** GLA Investment is targeted through a number of areas, including regeneration and economic development schemes; environmental projects; and arts, culture and health initiatives. The Council is currently working with TfL to secure funding through the GLA's Growth Fund to finance the development of a new bus/transit river crossing between Abbey Road and Quay Road/Freshwater Road in Barking Town Centre to link Barking to Gallions Reach and the

Royal Docks and support the development of new homes/jobs in the area. We also plan to submit a bid through the Mayor's Air Quality Fund (MAQF) as a means of delivering measures to tackle the borough's worst pollution hot spots;

- **Central Government (e.g. DfT/DeFRA):** Working closely with the GLA and TfL, the Council has submitted a circa £180 million forward funding bid to the Housing and Community Agency (HCA) through the Housing Infrastructure Fund to deliver several key pieces of transport infrastructure as a means of unlocking upwards of 20,000 new homes in the borough;
- **London European Partnership for Transport (LEPT)/European Union:** The Council recently completed a European funded project to develop a Freight Travel Plan in Barking Riverside with the aim of mitigating the impact of commercial freight traffic in the area. We will consider submitting bids for additional funding for transport and related schemes over the course of this Delivery Plan;
- **Sustrans/Living Streets:** Funding is often available through these charitable organisations/campaign groups to undertake a variety of cycling and walking initiatives and promotions. We also have a Service Level Agreement in place with Sustrans and Living Streets to undertake a variety of cycling and walking promotions and activities within the Borough and will look at ways of expanding the remit of these over the course of the LIP.

3.4 Programme of Investment: 2019/20 – 2021/22

3.4.1 A summary of the schemes that the Council is proposing under the formula-based Corridors, Neighbourhoods and Supporting Measures Programme and Local Transport Fund programmes for 2019/20 – 2021/22 is set out in **Table 3.8**. Information on the detailed annual spending programme for 2019/20 is set out in **Annex F**. For each scheme an indication of costs and sources of funding are given. It is considered that the programme will go some way to addressing a variety of local issues, whilst also being consistent with the Mayor's Transport Strategy.

3.4.2 The LIP Programme of Investment has been put together on the basis that funding will be as indicated in the latest TfL guidance. If a higher level of funding is available, then the programme will be extended. Similarly, if funding is lower than the indicative amount, then the programme will be reduced. In any event, the LIP programme is sufficiently flexible to allow resources to be transferred between projects or enable alternative schemes to be delayed/ brought forward.

Liveable Neighbourhoods Programme

3.4.3 In support of our plans for growing the borough, to enhance transport connectivity and accessibility, and to promote healthy, sustainable travel practices, we intend to submit a number of detailed bids for Liveable Neighbourhoods funding during the course of the LIP, including proposals for transformational schemes focused in and around the following areas:

- **Becontree Estate:** Transformational area-based scheme centred around the Council's plans to make Barking and Dagenham the 'Green Capital' of the Capital. Involving radically improved conditions for walking and cycling; greening measures to improve air quality; 'smart city' measures to help drive modal shift; and improvements to neighbourhood centres, the aim is to make this iconic estate an exemplar of 21st century sustainable living in the same way it embodied 20th century garden city ideals;
- **Beam Park/A1306:** Area improvement scheme to tackle long-standing severance, congestion and safety issues caused by the A1306 and to improve connectivity between the existing communities to the north of the road and the planned new developments at Beam Park and the former Fords Stamping Plant site to the south. A key element of any scheme will be the removal of the busy Ballards Road gyratory to improve safety for pedestrians and cyclists and improve accessibility to local services.

Borough Assets – Key Priorities

3.4.4 Whilst there is no funding available from TfL in 2019/20 for the ongoing maintenance of the borough principal road network and assessment/strengthening of bridge and other highways structures, the Council has set out its priorities for investment for subsequent years should funding become available (see **Table 3.7**).

Table 3.7: Borough assets – priorities for investment: 2019/20 – 2021/22

Asset Type	Priority Locations	Indicative Cost
Principal Road Network	<ul style="list-style-type: none"> • St.Paul's Road – Ripple Road to Gascoigne Road, • St Paul's Road Roundabout; • Ripple Road – Upney Lane to Lodge Avenue; • Ripple Road - Movers Lane to Westbury Road; • Heathway – Oxlow Lane to Wood Lane; • Rainham Road South – Bull Roundabout to Shafter Road; • Abbey Road – London Road to Highbridge Road; • Wood Lane Roundabout (Civic Centre); • Wood Lane – Valence Wood road to Rowlands Road; • High Road – Mill Lane to Whalebone Lane North. 	TBC.
Bridge Structures*	<ul style="list-style-type: none"> • Ripple Road Flyover and Footbridge; • Queen's Road Bridge/Subway; • London Road Bridge; • Beam Bridge; • Gores Bridge; • Various highways culverts. 	TBC.

* Funding for Bridge assessment/strengthening coordinated through London Bridges Engineering Group (LoBEG).

Strategic Funding Programmes

- 3.4.5 The Borough Cycling programme is by far the largest of TfL's strategic funding programmes and is focused on improving conditions and facilities for cyclists as a means of encouraging more people to cycle in London. It forms a key component of the Mayor's vision for cycling in the capital. Circa £169 million has been earmarked for investment in schemes across London in the three-year period to 2021/22.
- 3.4.6 The Council is working closely with TfL to deliver elements of the Borough Cycling Programme in Barking and Dagenham, including developing options for a Quietways route linking Ilford to Barking Riverside via Barking Town Centre. Details of routing, costs and timescales for delivery are still to be determined.
- 3.4.7 The Council is currently working with TfL to develop a number of strategic bus priority schemes in Barking and Dagenham as a means of improving bus route connectivity and improving bus journey times in the borough. High profile schemes include the potential for new bus links along Goresbrook Road and across the River Roding; and improvements to Longbridge Road to reduce bus journey delays.
- 3.4.8 A number of other, smaller, bus priority improvements are also being developed, including for locations along Ripple Road at St Paul's Road/Axe Street, King Edward's Road and Movers Lane; and at the junction of London Road//Abbey Road/Gurdwara Way in Barking Town Centre. Details of specific measures, costs and timescales for delivery are still to be determined.

Table 3.8: LIP Programme of Investment: 2019/20 – 2021/22

Scheme Name/ Location	Scheme Summary	Ward(s) Affected	Indicative Costs 2019/20*	Indicative Costs 2020/21*	Indicative Costs 2021/22*
Corridors, Neighbourhoods and Supporting Measures Programme Indicative Allocation:			£1,377,000	£1,377,000	£1,377,000
Public Health Grant:			£40,000	£40,000	£40,000
Barking Station Improvements	Contribution to redevelopment costs of Barking Station to improve accessibility and passenger safety and relieve overcrowding. A key priority is the provision of step-free access between the station concourse and platforms. Improvements to be delivered by December 2019 in line with C2C franchise requirements.	Abbey	£900,000	-	-
The Heathway 'Healthy Streets' Corridor Improvements	Development and delivery of range of 'Healthy Streets' measures identified in recent scoping reports produced by Sustrans and Living Streets with the aim of addressing a range of safety issues and road user conflicts in the area and increasing levels of walking and cycling to this major District centre. A key focus will be on the provision of safe, accessible facilities for pedestrians and cyclists; introduction of measures to tackle localised congestion and improve air quality; and the delivery of enhancements to the public realm. Two-year collaborative design and build scheme with main works undertaken in 2020/21.	Alibon, River, Village	£50,000	£600,000	-
Valance Avenue 'Healthy Streets' Corridor Improvements	Development and delivery of range of 'Healthy Streets' measures with the aim of improving walking and cycling links between the Becontree Estate and the Elizabeth Line (Crossrail) station at Chadwell Heath. A key focus will be on the provision of safe, accessible facilities for pedestrians and cyclists, including the introduction of dedicated pedestrian and cycle facilities on the central reservation along Valance Avenue. Two-year collaborative design and build scheme with main works undertaken in 2021/22.	Valance, Parsloes	-	£50,000	£500,000

Scheme Name/ Location	Scheme Summary	Ward(s) Affected	Indicative Costs 2019/20*	Indicative Costs 2020/21*	Indicative Costs 2021/22*
Eastbury Manor House Access Improvements	Public realm enhancement scheme aimed at improving visitor access to and reflecting the Grade 1 listed status of Eastbury Manor House. Focused on Eastbury Square and surrounding streets, the scheme will deliver a range of 'Healthy Streets' improvements which will better meet the needs of visitors and reflect the requirements of local residents. Key priorities include the need to reduce the speed/dominance of vehicles; improve conditions for pedestrians/cyclists; and improve the quality of the street scene. The scheme will complement wider improvements underway at the manor house aimed at providing an enhanced visitor experience.	Eastbury	-	£50,000	£250,000
Station Access Improvements Programme – Upney and Dagenham East	Continuation of our station access improvements programme aimed at providing high quality, attractive approaches to our key transport interchanges. Focusing on Upney and Dagenham East stations schemes will deliver improved walking, cycling and bus access to stations; improved safety and security and an enhanced public realm. Utilising our preferred approach of collaborative design and build, scheme delivery will be undertaken in 2020/21 (Upney) and 2021/22 (Dagenham East).	Longbridge, Eastbury, Eastbrook, Village	£50,000	£300,000	£250,000
Marks Gate – Chadwell Heath Cycling Link	Introduction of a dedicated cycle route linking the Marks Gate Estate to the Elizabeth Line (Crossrail) station at Chadwell Heath, as a means of encouraging healthy, sustainable travel in the area. It is proposed to better utilise the existing quiet, green routes of St. Chad's Park to provide a safe, direct cycle link, whilst seeking to address some of the key barriers/accessibility issues present in the wider area.	Chadwell Heath	£100,000	-	-
Road Safety and Access Improvement Programme (Various Locations)	Small-medium scale, site specific road safety and access improvements in support of our LIP objectives of reducing the number of casualties on our roads, improving access for all and promoting healthy/sustainable travel; and to complement our various corridor/neighbourhood initiatives. Priorities tbc, but likely to focus on proposals for new neighbourhood 20mph zones, filtered permeability schemes and 'school gate' road safety/access improvements.	All	£150,000	£250,000	£250,000

Scheme Name/ Location	Scheme Summary	Ward(s) Affected	Indicative Costs 2019/20*	Indicative Costs 2020/21*	Indicative Costs 2021/22*
Borough-wide Healthy/Active Travel Programme	Continuation of work with borough schools, businesses and residents to promote healthy, active and sustainable travel practices. Funding earmarked for: <ul style="list-style-type: none"> Provision of cycle training to cyclists of all ages and the delivery of walking events/initiatives to promote cycling and walking as healthy/sustainable modes of travel; Review/update of school and workplace travel plans, including funding for promotional events and small-scale physical measures (e.g. cycle parking). Includes contribution towards the cost of employing London Riverside Travel Plan Coordinator. 	All	£167,000 (Includes £40,000 Public Health Grant)	£167,000 (Includes £40,000 Public Health Grant)	£167,000 (Includes £40,000 Public Health Grant)
TOTAL:			£1,417,000	£1,417,000	£1,417,000
Local Transport Funding Indicative Allocation:			£100,000	£100,000	£100,000
Future Scheme Development (Various Locations)	Investigative studies to inform future LIP Corridor and Liveable Neighbourhood schemes. Focus will be on promoting healthy, active travel and on securing road safety and accessibility improvements.	All	£60,000	£60,000	£60,000
Minor Works (Various Locations)	Ad-hoc measures such as pedestrian access improvements; small-scale public realm enhancements; implementation of cycle parking; reviews of parking and waiting/loading restrictions; etc.	All	£40,000	£40,000	£40,000
TOTAL:			£100,000	£100,000	£100,000
GRAND TOTAL:			£1,517,000	£1,517,000	£1,517,000

* Schemes funded through LIP Corridors, Neighbourhoods and Supporting Measures Programme unless otherwise stated.

Figure 3.2: Programme of Investment locations

INSERT MAP OF INTERVENTIONS

3.5 Programme Prioritisation and Monitoring Arrangements

3.5.1 The processes involved in the prioritisation and management of the delivery programme comprise a number of interwoven strands:

- An agreed scheme prioritisation process;
- A clearly defined process to monitor programme progress;
- A robust system for reviewing the programme;
- Methods to identify and manage the risks to programme delivery.

Scheme Prioritisation

3.5.2 A simple scheme prioritisation process, based loosely on the DfT's New Approach to Appraisals (NATA) methodology, was used to determine the LIP Programme of Investment. This has helped ensure that schemes deliver value for money; reflect the MTS vision/priorities; are consistent with the LIP objectives and delivery programme; address local problems and priorities; have the support of Members and, above all, are deliverable.

Programme Monitoring and Review

3.5.3 Monitoring of the delivery of the LIP programme is currently achieved through regular contact between the Programme Manager and the teams/individuals responsible for the delivery of the various schemes. Monthly project management meetings are held where information on costs and progress of all schemes, both current and planned, is obtained. The availability of up to date information is integrated into the risk management process (see below).

3.5.4 The process of reviewing the overarching programme through the period of the LIP emerges, in part, from the above monitoring system. The programme could be amended, with schemes added/removed or brought forward/put back, etc. as a result of a change in priorities, the availability of resources or the capacity to deliver schemes.

Managing Risk

3.5.5 As part of the Council's internal Capital Programme Monitoring (CPM) process, a risk assessment of the draft LIP programme has been undertaken. The principal risks associated with the delivery of the LIP programme include the failure to deliver planned measures; the relative effectiveness of selected measures; the quality of the data/information supplied; the roles/action of others and changes to funding levels. **Table 3.9** summarises the principal risks and mitigation measures in place to address these.

Table 3.9: LIP Delivery Programme – principal risks and mitigation measures

Risk	Impact	Likelihood	Mitigation Measures	Controls/Impacts
Schemes delayed/not completed	High	Low	<ul style="list-style-type: none"> Robust scheme prioritisation. Monthly project management meetings. Adequate staff resources to deliver schemes. 	<ul style="list-style-type: none"> Assessing schemes to ascertain their deliverability from the outset (both in terms of available resources and buildability) will prevent abortive work or uncompleted schemes. Regular project management meetings will help ensure that programme slippage is identified at an early stage so that remedial action can be taken to bring delivery back on track.
Schemes not effective	High	Low	<ul style="list-style-type: none"> Robust scheme prioritisation and review process. Fully flexible Delivery Plan. 	<ul style="list-style-type: none"> Scheme effectiveness determined at outset and reviewed regularly by observing best practice elsewhere and noting effectiveness of different types of intervention. Flexible Delivery Plan will enable emphasis/resources to be switched between schemes or new programmes considered where necessary.
Reliability of information/ data	Medium	Low	<ul style="list-style-type: none"> Robust data collection/analysis techniques. 	<ul style="list-style-type: none"> Wide range of modern data sources available will ensure supply of more consistent data for identifying/assessing schemes. Council's Data Insight Hub also enables greater understanding of the significance/trends in data available.
Lack of support/ cooperation from key stakeholders	High	Medium	<ul style="list-style-type: none"> Strong cooperative/partnership working arrangements. 	<ul style="list-style-type: none"> Some aspects of programme delivery are dependent on close partnership working with neighbouring authorities and TfL (in the case of the TLRN). The support/cooperation of other stakeholders (e.g. developers, businesses, transport operators, residents, etc.) is also crucial.
Changes to funding levels	High	Medium	<ul style="list-style-type: none"> Confirmed funding allocation(s). 	<ul style="list-style-type: none"> Delivery Programme determined on the basis that funding will be as indicated in the original settlement letter from TfL. If a higher level of funding is available, then the programme can be extended. Similarly, if funding is lower than the indicative amount, then the programme will need to be reduced.

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