

Epping Forest District Council  
**Epping Forest District Council  
Infrastructure Delivery Plan**

Part B Report: Infrastructure  
Delivery Schedule

**2020 Update**

Final | September 2020

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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# 1 Introduction

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## 1.1 Overview

Epping Forest District Local Plan identifies site allocations to deliver new homes and new jobs over the Plan period (2011-2033). Development comes with a need for supporting infrastructure including transport, education, health and community facilities to mitigate development impacts and support new communities.

Epping Forest District Council (EFDC) commissioned the preparation of an Infrastructure Delivery Plan (IDP) to set out what the infrastructure requirements to deliver the planned level of growth are. The IDP formed a key evidence base document for the Independent Examination of the Local Plan, and was formed of two parts:

- A review of the existing infrastructure was presented in the **IDP Part A** report, produced in 2017. This baseline report was informed by consultation with infrastructure and service providers, along with a review of relevant policy documents and modelling. It reported the existing infrastructure across Epping Forest District and identified any shortfalls in provision. From this starting point, the impact of growth over the Plan period was considered, and new infrastructure requirements identified.
- The **IDP Part B** report, also produced in 2017, drew on the findings and outputs on the IDP Part A report. The Part B report pulled together the infrastructure requirements identified into an Infrastructure Delivery Schedule. The Schedule sets out the identified infrastructure required at different spatial scales for Epping Forest District for the period up 2016-2033.

Since Part A and Part B were produced in 2017 and used to support the Independent Examination of the Local Plan, this **2020 Update** of the Part B report has been produced<sup>1</sup>. The purpose of the Update is to reflect changes made to the Local Plan in the form of proposed Main Modifications, as well as additional work that has been undertaken since the IDP was first published.

The Infrastructure Delivery Schedule included in this 2020 Update has a number of purposes, including to:

- provide details and descriptions of the infrastructure required;
- present indicative costs associated with delivering the infrastructure required to support growth;
- summarise the potential funding sources that could be used to deliver infrastructure upgrades, recognising that developer contributions will be a key part of this;

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<sup>1</sup> Note, Part A of the IDP has not been subject to an update.

- prioritise the infrastructure interventions according to whether considered ‘critical’, ‘essential’ or ‘required’, and identify when in the Plan period the infrastructure will be triggered; and
- Identify, where possible, the scale of the funding gap where funding is not fully committed.
- Set out the organisational responsibility for delivery and potential sources of funding.

An **Infrastructure Delivery Topic Paper** was prepared in 2018 to support the Local Plan Independent Examination and has built on the IDP. The purpose of the Topic Paper is to provide more information and certainty on infrastructure delivery. This includes a high-level framework for apportionment arrangements to be taken forward for key infrastructure identified in the IDP. More detailed and specific pools will be further defined during the production of strategic masterplans, concept frameworks and planning applications. The Topic Paper also provides more information on those external funding sources outlined in the IDP, including the work currently ongoing to progress/secure funding, and any risks of funding not being in place and contingency measures for this. The Topic Paper is provided in Appendix A, and the addendums on highways and education (updated to reflect Main Modifications) are provided in Appendices B-D.

## 1.2 Engagement

Development of the IDP has involved engagement with a wide range of stakeholders. Further information on the process for developing the Infrastructure Delivery Schedule with stakeholders is set out in Section 3.3.1.

## 1.3 IDP as a Live Document

IDPs are, by their very nature, a ‘snapshot in time’, and as different infrastructure providers respond to their own unique challenges, the information that they provide will naturally date and alter over time. It therefore needs to be recognised from the outset that the IDP should be viewed as a ‘live document’.

There are a number of areas of work ongoing which will further inform infrastructure requirements. The IDP will be reviewed periodically and updated where necessary.

## 1.4 Structure

The remainder of the 2020 Update is set out below:

- **Section 2** sets out the national, regional and local policy context for the delivery of infrastructure and development of IDPs.
- **Section 3** outlines the methodology used to develop the Infrastructure Delivery Schedule.
- **Section 4** presents the Infrastructure Delivery Schedule, broken down by settlement.

## 2 Policy Context for Infrastructure Delivery

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### 2.1 National Context

#### 2.1.1 National Planning Policy Framework 2019

The revised National Planning Policy Framework (NPPF) (2019) states that local planning authorities must prepare a robust and evidence-based Local Plan which seeks to deliver sustainable development. As part of the statutory requirement to produce a Local Plan, national policy has placed a greater responsibility on local planning authorities to plan for the delivery of various forms of infrastructure.

Infrastructure Delivery Plans (IDPs) are therefore an important part of the evidence base for local development plans. Their purpose is to demonstrate that the infrastructure requirements necessary to support the level of housing and employment growth proposed can be delivered. They also detail the level of funding required, highlight funding gaps, and identify potential funding sources such as Section 106 (S106) agreements or CIL. An IDP is, therefore, a key part of the evidence base for local councils negotiating developer contributions through S106 agreements or to help inform a CIL charging schedule.

Paragraph 16 of the NPPF states that plans should be prepared positively, in a way that is aspirational but deliverable, while being prepared with the objective of contributing to the achievement of sustainable development. Specifically, the NPPF states that both strategic (paragraph 20) and non-strategic (paragraph 28) policies should set out the overall strategy for the pattern, scale and quality of development, and make sufficient provision for infrastructure, including transport and community facilities (such as health and education).

Paragraph 34 of the NPPF states the following:

*Plans should set out the contributions expected from development. This should include setting out the levels and types of affordable housing provision required, along with other infrastructure (such as that needed for education, health, transport, flood and water management, green and digital infrastructure). Such policies should not undermine the deliverability of the plan.*

#### 2.1.2 Planning Practice Guidance

The Planning Practice Guidance (PPG) (paragraph 059, reference 61-059-20190315) explains the role and function of a Local Plan in delivering infrastructure, stating:

- The Local Plan should identify what infrastructure is required and how it can be funded and brought forward.
- Early discussion with infrastructure and service providers should be undertaken to collaboratively identify infrastructure deficits and requirements, and opportunities for addressing them. In doing so they will:

- Assess the quality and capacity of infrastructure, and its ability to meet forecast demands. Policies should set out how identified deficiencies will be addressed.
- Take account for strategic infrastructure, including nationally and significant infrastructure, within these areas.
- An Infrastructure Funding Statement (IFS) should be prepared using available evidence to set out the anticipated funding from developer contributions, and the choices local authorities have made about how these contributions will be used.
- Where longer term growth is planned through new settlements or significant extensions to existing villages or town, less detail may be provided as the position regarding the provision of infrastructure is likely to be less certain. In these circumstances, it is expected that authorities will demonstrate a reasonable prospect that the proposals can be developed within the timescale envisaged.

### 2.1.3 Infrastructure Funding Statements

Whilst the preparation of Infrastructure Funding Statements (IFS) is only a recommendation within the PPG, this is now a legal requirement for all local authorities following the latest amendment to the Community Infrastructure Levy (CIL) Regulations (2010), which came into force in September 2019.

The regulations state that IFSs should include details of how much money has been raised through developer contributions, both from CIL and Section 106 planning obligations, and how it has been spent. A full list of the matters to be included in IFSs is stated in Schedule 2 of the CIL Regulations.

IFSs must be published on local planning authority websites at least once a year and councils will be required to publish their first statements by 31 December 2020.

### 2.1.4 Planning Obligations

Planning obligations assist in mitigating the impact of unacceptable development to make it acceptable in planning terms. Planning obligations may only constitute a reason for granting planning permission if they meet all the following tests set out in Paragraph 56 of the NPPF: necessary to make the development acceptable in planning terms; directly related to the development; and fairly and reasonably related in scale and kind to the development. The PPG (paragraph 002, reference 10-002-20190509) states that local authorities should ensure that the combined total impact of such requests, and policies more generally, does not threaten the deliverability of the plan.

Developers may be asked to provide contributions for infrastructure in several ways. This may be by way of Community Infrastructure Levy (CIL) charged, or through Section 106 Agreements and Section 278 Agreements relating to highways works.

EFDC does not yet have a CIL charging schedule, but may decide to bring one forward in the future. EFDC utilises Section 106 agreements to secure funding to mitigate impacts from developments. In the emerging Local Plan, the approach to planning obligations is set out in relation to infrastructure delivery. The Council will consider introducing a Community Infrastructure Levy (CIL) and will implement this for areas and/or development types where a viable charging schedule would best mitigate the impacts of growth. If implemented, section 106 will continue to be the appropriate mechanism for securing land and works along with financial contributions where a sum for the necessary infrastructure is not secured via CIL, including for Affordable Housing.

The government's White Paper 'Planning for the Future', published in August 2020, includes proposals to abolish the current system of planning obligations and to replace CIL with an 'Infrastructure Levy' to be charged as a fixed proportion of the development value above a threshold, with a mandatory nationally-set rate or rates. At the time of writing, this remains a proposal only.

## 2.2 Regional Context

The NPPF sets out the duty for local authorities to co-operate, recognising the crucial need for co-ordinated growth and infrastructure delivery. This means that a range of organisations at a sub-regional level have a role in infrastructure planning and delivery.

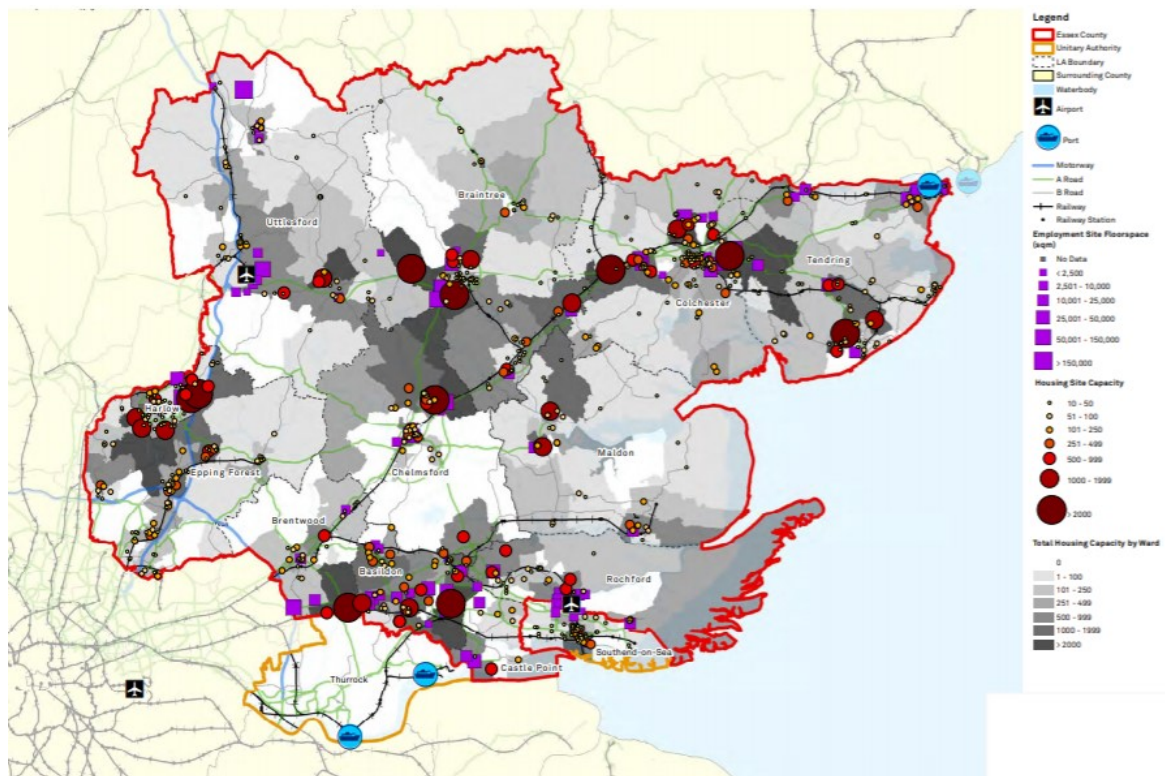
### 2.2.1 Greater Essex Growth and Infrastructure Framework 2016 – 2036

The Greater Essex Growth and Infrastructure Framework (GIF) was commissioned by all local and unitary authorities in Essex. Covering a 20-year period from 2016 – 2036, the GIF presents an overview of housing and employment growth patterns across the county and identifies future infrastructure requirements and funding gaps.

The estimated cost of delivering the level of infrastructure needed to support the county's growth was found to be approximately £10.4 billion. A comparison to the level of secured funding from public, private and developer contributions identified a funding gap of £4.4 billion. This was exacerbated by growth over the previous decade not being matched by a corresponding growth in infrastructure funding, leading to a deficit in infrastructure provision. It was identified that major transport projects in the region need to secure £36.5bn, and £5.5bn for cross boundary projects. These projects have a funding gap of £11bn.



Figure 1 Major housing and employment growth locations within the GIF study area



## 2.2.2 Essex County Council Developers' Guide to Infrastructure Contributions

The Developer's Guide to Infrastructure Contributions sets out the County Council's approach to securing appropriate infrastructure provision to support development. The Guide details the scope and range of contributions towards infrastructure, which Essex County Council may seek from developers and landowners in order to make development acceptable in planning terms.

The Guide sets out infrastructure policy standards and costing information, to help standardise the approach to delivery, and ensure new developments are sustainable. This document has been used as a starting point for identifying the quantum and provision of infrastructure required to support growth over the Plan period.

## 2.2.3 Essex Design Guide

The Essex Planning Officer Association (EPOA) and Essex County Council co-produced the 2018 iteration of the Essex Design Guide to provide county-level guidance on best practise design and place making for developments within the county. It is the first fully online and interactive design guide in the UK.

Detailed design guidance is provided covering architecture, urban design and landscape architecture, in addition to infrastructure-related considerations such as streets and roads, flooding and green infrastructure. Supplementary guidance is also provided, covering topics such as Health Impact Assessments, school design, or engagement with the emergency services.

The guide also identifies five socio-economic themes that good design should aim to address in the county:

- Active Design Principles
- Ageing Population
- Health and Wellbeing
- Digital and Smart Technology
- Garden Communities

## 2.3 Local Context

The Epping Forest District Local Plan Submission Version 2011-2033 (EFDC LPSV) was submitted to the Secretary of State for examination in public on 21 September 2018. The Plan sets out the approach, strategy and detailed policies for meeting the District's needs from 2011 up to 2033.

The Local Plan sets out the vision and objectives for the District's development, including sustainable homes high quality and natural environment, a strong economy and new employment land space, vibrant town centres and sustainable transport options. It also includes proposal for delivery and the mechanisms by which the Council will ensure that infrastructure required to underpin the Plan will be delivered. The Plan makes direct reference to the IDP and its ability to demonstrate the infrastructure requirements necessary to support the site allocations.

The Local Plan is subject to an Independent Examination. Hearing sessions were held in February to June 2019, and the Council has responded to actions set out by the Inspector in her initial advice (ED98). A series of Main Modifications, required to make Plan sound and legally-compliant, have been proposed to the Inspector and these will be subject to formal consultation upon agreement by the Inspector.

Policies D1 to D7 set out the policy for the delivery of infrastructure. Policy D1 A. specifically states that:

*New development must be served and supported by appropriate on and off-site infrastructure and services as identified through the Infrastructure Delivery Plan.*

Policies D2 to D5 outline that development proposals will be permitted only where they provide or improve the infrastructure required to serve the scale of the proposed development. Policies relevant to the delivery of infrastructure include:

- Essential facilities and services (Policy D2)
- Utilities (Policy D3)
- Community, leisure and cultural facilities (Policy D4)
- Communications infrastructure (Policy D5)

Policy D6 details the council's support for the preparation and production of Neighbourhood Plans which contribute towards the strategic objectives of the Local Plan, which include infrastructure delivery. Finally, Policy D7 monitoring and enforcement states that the Council will monitor the implementation of the Local Plan policies and infrastructure provision and commits to reporting the results on an annual basis.

## 2.4 Harlow and Gilston Garden Town

Along with EFDC, Harlow District Council, East Herts District Council, Hertfordshire County Council and Essex Country Council are working together to bring forward the transformational growth of Harlow as the Harlow and Gilston Garden Town. The objectives of the Garden Town are to deliver sustainable growth and infrastructure of considerable scale and significance, which will meet housing and employment needs, deliver regeneration objectives and create a high-quality environment.

Approximately 16,000 new homes are planned for the Garden Town within the Councils' plan periods to 2033 (including units already delivered or consented), with an additional 7,000 delivered beyond the plan periods. The Garden Town comprises development sites both within the Harlow administrative area and within East Hertfordshire District and Epping Forest District, including:

- 750 homes at East of Harlow (with an additional 2,600 within Harlow's administrative area);
- 2,100 at Water Lane Area; and
- 1,050 units at Latton Priory.

Other sites include 10,000 homes at Gilston in East Herts District, and sites within Harlow District Council.

The delivery of the Garden Communities will need to be underpinned by a comprehensive package of infrastructure, which will need to be phased and delivered in a timely way ahead of or in tandem with the development it serves. This necessitates a coordinated approach across local authority boundaries and the involvement of a range of partners, including the site owners/promoters, infrastructure providers and other stakeholders. The Councils have worked together to produce a Harlow and Gilston Garden Town IDP, published in 2019, as well as a Spatial Vision and Design Charter framework which will provide an overarching spatial vision across the Garden Communities, and emerging work on planning obligations (which may take the form of a development plan document or supplementary planning document).

## 3 Methodology

### 3.1 Locations of Growth

The IDP reflects and plans for the level and locations of growth set out in the Local Plan and its proposed Main Modifications. This growth is set out in Figure 2.

Figure 2 Locations of growth

Settlement	Total
Harlow sites	3,900
<i>Water Lane Area</i>	<i>2,100</i>
<i>Latton Priory</i>	<i>1,050</i>
<i>East of Harlow</i>	<i>750</i>
North Weald Bassett	1,050
Waltham Abbey	836
Epping	716
Chipping Ongar	590
Loughton/Debden	419
Chigwell	187
Thornwood	172
Lower Nazeing	93
Buckhurst Hill	87
Sheering	84
Theydon Bois	57
Roydon	48
Stapleford Abbotts	33
Fyfield	14
Lower Sheering	14
High Ongar	10

Rural site allocations and traveller site allocations have been matched to the settlement to which they have the strongest functional link.

The IDP also reflects commitments (planning permissions which have been granted but not yet delivered) and recent completions.

### 3.2 Infrastructure Types and Scale of Reporting

The Schedule covers the physical and social infrastructure types shown in Figure 3, and reported at the spatial scales identified in Figure 4. Some infrastructure types discussed in the baseline are not reported in the Schedule where no

the Schedule where no identified project or intervention has been identified as necessary to assist in the delivery of growth.

Figure 3 Infrastructure types identified in the Schedule

Category	Infrastructure
Transport	Highways
	Rail
	Buses
	Walking and Cycling
Education	Early Years and Childcare
	Primary Schools
	Secondary Schools
Health and Social Care	GPs
	Dentists
	Adult social care
Community and Sport	Community Centres
	Indoor Sports Facilities
	Outdoor Sports Facilities
Open Space and Green Infrastructure	Natural and semi-natural open space
	Informal recreation
	Managed open space
	Allotments
	Children's play
	Green Infrastructure
Utilities	Water
	Wastewater
	Electricity
	Gas
	Broadband

Infrastructure provision has been considered across a range of spatial scales, to fully reflect what is required to serve growth areas.

Figure 4 Spatial scales reported in the Schedule

Spatial Scale	Infrastructure schemes
District	Infrastructure required to serve growth across the District as a whole
Strategic sites - combined	Infrastructure required to serve growth across the strategic sites at the Harlow and Gilston Garden Town as a whole
Strategic sites	Infrastructure required to specifically support growth in either the Water Lane Area, East of Harlow or Latton Priory strategic sites.
Settlements	Infrastructure interventions required to support growth within specific settlements across the District.

It should also be noted that different infrastructure types were assessed and calculated across a range of geographies. This was informed by consultation with providers, and was used to best reflect how services are delivered and used. These are referenced below, and set out in more detail in Part A of the IDP:

- Primary Schools – assessed in Primary Forecast Planning Groups
- Secondary Schools – assessed in Secondary Forecast Planning Groups
- GP surgeries – assessed in Neighbourhood Areas

### 3.3 Identifying infrastructure requirements

Future infrastructure requirements associated with growth identified in the Plan period have been assessed through a combination of stakeholder consultation, a review of existing evidence-base strategies and forecast modelling. The future infrastructure requirements have been updated as part of this 2020 Update to reflect updated site capacities and trajectory, as well as more recent work on particular infrastructure types.

#### 3.3.1 Consultation with providers

Extensive stakeholder consultation was undertaken as part of the 2017 version of the IDP to establish the likely additional infrastructure requirements arising from growth over the Plan period (See Appendix E). This included officers from EFDC, Harlow, East Hertfordshire and Essex County Council. In addition, consultation was undertaken with representatives from Transport for London, Network Rail, utility companies for water, wastewater, gas and electricity, the West Essex Clinical Commissioning Group, NHS England and representatives from the emergency services. The growth forecasts were shared with infrastructure providers and stakeholders, who commented on the likely impact of growth on existing provision in the District. The ability of existing infrastructure to absorb this additional demand, and the need for new facilities, were also considered as part of this process.

Stakeholder consultation formed part of an iterative process, with additional discussions with providers in line with changes to site allocations and phasing.

Although standards set out in the ECC Developers' Guide to Infrastructure Contributions provided a useful starting point in identifying infrastructure need, where more up to date information was received from infrastructure providers, this information was superseded. This was to ensure that schemes in the Schedule better reflect how infrastructure is assessed, delivered and funded. In some instances, changing models of service delivery also affected the space requirements associated with future infrastructure provision. Examples of this include the trend towards 'hub' models and co-location, whereby several services such as community centres and libraries may operate out of the same facility. It should therefore be noted that for some types of infrastructure, a more flexible approach to provision and delivery may be appropriate. It will be necessary that the IDP is updated regularly as policy changes come into effect, to reflect these changes in delivery.

As part of the 2020 Update, follow-up engagement with EFDC and Essex County Council has been undertaken to understand changing infrastructure requirements.

### 3.3.2 Forecast modelling

Forecast modelling was undertaken to demonstrate requirements in line with policy standards. These standards of provision have been used to model infrastructure requirement across the Plan period, and calculate need in line with the housing trajectory for growth.

For certain infrastructure sectors, it was possible to set infrastructure benchmark 'standards', which can be used to derive estimates of the amount of provision that is required. Where standards for infrastructure were found, future demand for those services has been modelled. The methodology associated with the forecast modelling is set out in full in Part A of the IDP.

Demand forecasting was undertaken for the following infrastructure as part of this 2020 Update:

- Early years provision
- Community floorspace
- Adult social care
- GP surgeries (to update the figures originally provided by West Essex CCG reflected in the 2017 version of the IDP)
- Dentists
- Open Space (to update the figures originally reported in the Open Space Strategy produced by 4 Global reflected in the 2017 version of the IDP)

In some instances, providers undertook their own modelling and calculation of future need, which was fed directly into the Schedule. This was the case for:

- Primary and secondary education - modelling work undertaken by ECC



- Transport - modelling work, and associated interventions, undertaken by ECC and Jacobs transport consultants
- Indoor sports facilities – modelling work undertaken as part of the Council’s Built Facilities Strategy

### 3.3.3 Review of existing strategies

Infrastructure needs over the Plan period were also identified by reviewing a range of evidence based strategies, commissioned to support the emerging Local Plan. In addition, infrastructure requirements identified in Neighbourhood Plans across the District were also reviewed and incorporated into the Schedule, where appropriate. As part of the 2020 Update, a review of strategies produced since the 2017 version of the IDP was published has been undertaken.

## 3.4 Approach to existing capacity surplus and deficits

Part A of the 2017 IDP assessed the current provision of infrastructure across the District, including any known shortfalls or surpluses in capacity. Across the majority of infrastructure types, data on existing capacity was not available or complete enough to inform the forecast modelling outputs. Data on existing capacity deficits and surpluses were however available for primary and secondary education, GP surgeries, open space and sports facilities.

Where possible, existing surplus capacity information was built directly into the forecast modelling, to reflect future requirements as accurately as possible. The rationale for this approach was to reflect the ability of current provision to absorb some of the future demand. Without this information, the Schedule is likely to overstate the future infrastructure requirement.

For all other infrastructure types, forecast modelling identifies future infrastructure needs based on policy compliance. This newly-arising need does not take into account current surplus or deficit capacities. The Schedule identifies whether infrastructure provision reflects newly arising need associated with planned growth, or shows a combination of newly arising and existing need.

## 3.5 Rationalisation and limitations

The Schedule presents the infrastructure need to ensure that all development is policy compliant, in relation to the level of social and physical infrastructure required to serve the needs of the additional population.

In reality, service delivery is complex, and limited by financial constraints. It will be for providers to decide how best to deliver services and meet new infrastructure demands. This may include further co-location of services, multi-use of buildings such as using schools at weekends and evenings, or moving towards hub models.



Changing strategies for future service delivery will impact on infrastructure requirements going forwards. The IDP should therefore be regularly reviewed and updated when required. Changes may impact on space requirements, which may increase or decrease over time.

The process of identifying future infrastructure requirements involved a degree of rationalisation between a number of different sources, in order to avoid duplicating or over-stating infrastructure requirements. Sources included:

- Consultation with stakeholders
- Council policy documents and relevant infrastructure strategies
- Forecast modelling based on policy standards of infrastructure provision

### 3.6 Prioritisation

The infrastructure interventions have been listed as either ‘critical’, ‘essential’ or ‘required’.

Figure 5 Prioritisation Criteria

Priority	Criteria
<b>Critical</b>	Critical infrastructure is that which must happen in order for development to proceed. It most commonly involves connections to transport and utility networks. It is usually triggered by the commencement of development activity.
<b>Essential</b>	Essential infrastructure is that which is necessary to mitigate impacts arising from the development, for example provision of education and health facilities. It is usually triggered at occupation of a development site, either a specific phase or the whole site. It enables development to come forward in a way that is both sustainable and acceptable in planning terms.
<b>Required</b>	Required infrastructure is that which is required for sustainable growth and to achieve good place making objectives but the absence of which is unlikely to prevent development in the short to medium term. It is usually triggered at occupation of a development site, either a specific phase or the whole site. This type of infrastructure would improve operational capacity, and deliver other wider benefits, but would not prevent or delay the delivery of further development.

Interventions relating to open space have been categorised as essential where there is a known deficit of that form of open space within the settlement.

### 3.7 Costs

Infrastructure costs have been obtained from the most recent or locally specific information available. These exclude land costs. Costs have been reviewed and updated as part of the 2020 Update.

It is recommended that the costs in the Schedule are updated regularly throughout the Plan period, to account for price changes, including change in costs for materials and labour or inflation, or if more up-to-date information becomes

available. The sources of the cost for each infrastructure type are shown in Figure 6.

Costs should be treated as indicative at this stage and should be up-dated as more detailed information becomes available.

Figure 6 Infrastructure cost sources

Infrastructure	Source of cost
Highways	Estimated costs provided by Essex County Council and Jacobs Transport Consultants
Public Transport (buses)	Estimated costs provided by Essex County Council and Jacobs Transport Consultants
Walking and Cycling	Estimated costs provided by Essex County Council, and taken from the ECC Cycling Action Plan (2016)
Early Years and Childcare	Estimated costs provided by Essex County Council, rebased to Q2 2020 using BCIS uplift
Primary Schools	Estimated costs provided by Essex County Council
Secondary Schools	Estimated costs provided by Essex County Council
Adult social care	Cost estimates derived from BCIS average prices, Rebased to Q1 2020 and South East Region (excluding Greater London)
GP surgeries	Cost estimates derived from BCIS average prices, Rebased to Q1 2020 and South East Region (excluding Greater London)
Libraries	Cost estimates derived from BCIS average prices, Rebased to 2020 and South East Region (excluding Greater London)
Community centres	Cost estimates derived from BCIS average prices, Rebased to 4Q 2020 and South East Region (excluding Greater London). Cost estimates for Garden Town sites provided by Essex County Council
Indoor sports facilities	Sport England Facilities Costs Q2 2019
Outdoor sports facilities	Sport England Facilities Costs Q2 2019
Open space	Cost estimates derived from 2017 Spons and a South East adjustment factor and rebased to Q2 2020 using BCIS uplift; Arup professional experience on live/completed jobs
Other	Other costs provided by providers

### 3.7.1 Unknown Costs

Within the Schedule, some costs are labelled as unknown. This is due to either a lack of detail of the intervention at this stage, or that costs have not yet been formulated by the delivery body.

The Strategic Viability Assessment has tested the impact of a range of infrastructure costs to understand the impact on site viability. This provides an understanding of the likely scale of the impact in the absence of exact costs.

The costs for the Sustainable Transport Corridors included in the IDP are based on the high-level costs included in the Harlow and Gilston Garden Town Sustainable Transport Corridors Strategy and refined for the preparation of the

Housing Infrastructure Fund bid. More detailed work on the Corridors is ongoing which will establish more detailed costs.

The costs do not include off-site land costs, or any costs in relation to compulsory purchase of land to deliver infrastructure.

### 3.8 Phasing

The Schedule identifies when the infrastructure will need to be delivered over the Plan period. The phasing of infrastructure was determined through a combination of consultation with service providers, existing strategies and evidence base documents, and modelling based on the housing trajectory.

The majority of infrastructure types have been phased in line with the housing trajectory, using forecast modelling (updated based on changes reflected in the proposed Main Modifications). For transport infrastructure, phasing was informed by Essex County Council and transport consultants, where known. For schemes where phasing was not yet determined, this was calculated in line with the housing trajectory at the settlement level.

### 3.9 Infrastructure Funding

There are a range of funding sources available to support infrastructure delivery over the Plan period, including from a range of governmental and non-departmental public bodies, partnerships and wider grant opportunities. Funding options include:

- Central Government and Homes England
- Funding through the South East Local Enterprise Partnership
- Funding opportunities relating to Garden Town status
- Funds available through Essex County Council
- Other grant sources.

Alongside these sources, developer funding will be an important element of delivering the infrastructure required to support growth.

An Infrastructure Delivery Topic Paper was developed to support the Local Plan Independent Examination, covering the funding of infrastructure (Appendix A).

### 3.10 Apportioning costs

It will be necessary to ensure that the cost of providing infrastructure is shared equitably. This is particularly the case where one development is required to provide land for infrastructure which will serve a wider area such as schools and health facilities. This may be achieved through some form of land equalisation agreement. The approach to land equalisation and apportioning costs will be developed closely linked to the work outlined and through the masterplanning and planning application process.

Apportionment of costs has been undertaken for the Harlow strategic sites (refer to the Harlow and Gilston Garden Town IDP) and the following areas in Epping Forest District:

- South Epping Masterplan Area
- North Weald Bassett Masterplan Area
- Waltham Abbey North Masterplan Area

The apportionment for these three areas is provided in Appendix F.

## 4 Infrastructure Delivery Schedule

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A Schedule of infrastructure has been produced to clearly show interventions required over the Plan period, to support growth across different spatial scales.

The Schedule is broken down by settlement, accompanied by a Schedule for District-wide infrastructure which serves multiple settlements.

## 4.1 Infrastructure Delivery Schedule: District Wide

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2036	Notes	Baseline Source
DW1	Utilities	Ongoing broadband and communication upgrades, as required by technological change	Essential	Providers	Providers	Unknown	2016-2033					The IDP does not identify any specific requirements; however, upgrades may be required as new technologies are rolled out. An efficient broadband network across the district including the most rural areas is crucial for home working and family life. Reference should be made to Superfast Essex (or equivalent) targets and/or requirements.	Consultation with EFDC
DW2	Utilities	Delivery of gigabit capable fibre broadband infrastructure to 20 GP surgeries across EFDC, as part of a Digital Innovation Zone-wide project that will deliver to 83 GPs in total across East Hertfordshire and West Essex.	Essential	DCMS, DIZ, ECC, EFDC, EPUT, West Essex CCG, Capita Updata, Open Reach	Department for Digital, Culture, Media and Sport	£1.7m which covers the delivery across all five district authorities	2021					There is an OpenReach commitment to also provide broadband infrastructure to properties passed within 50m of the GPs served by the project.	Consultation with Digital Innovation Zone
DW3	Utilities	Flexibility to embrace new technologies and designs that support reducing carbon footprint (e.g. green walls to structures).	Required	Developers / Providers	Developers / Providers	Unknown	2016-2033						Consultation with EFDC
DW4	Flood Protection	Shanks Mill flood storage area	Essential	Environment Agency	Environment Agency	Unknown	2016-2021					The flood storage area will consist of an earth embankment constructed across the floodplain next to Shanks Mill Road. This will include a structure that controls the rate that water is allowed to pass downstream.	Environment Agency
DW5	Transport - Highways	Improvements to Junction 7 on the M11	Essential	Highways England / ECC	Highways England - Road Investment Strategy 2	£29,000,000	2025-2030					Project scoped and fully costed. If funding is not available from Road Investment Strategy 2 the cost will need to be borne by developers.	Memorandum of Understanding on Highways and Transportation Infrastructure for the West Essex/ East Hertfordshire Housing Market Area
DW6	Transport - Highways	All proposed development which would result in a net increase in Annual Average Daily Traffic (AADT) on roads within 200m of the EFSAC must include proposals to mitigate the effect of air pollution as set out in the Air Pollution Mitigation Strategy.	Essential	Developers	Development Contributions	N/A	2019 - 2033						Epping Forest Special Area of Conservation Draft Air Pollution Mitigation Strategy Consultation with EFDC

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2036	Notes	Baseline Source
DW7	Transport - Highways	Upgrades to M11 Junction 5	Essential	Highways England / ECC		Unknown	Unknown	Unknown				Additional intervention identified following Technical Note. A junction improvement scheme has been developed and was submitted to Highways England for discussion. The scheme includes creating a new signal junction between the off slip and A1168. The principal aim will be to coordinate these signals with the Oakwood Hill signals to the north and prioritise northbound A1168 traffic to clear queues and provide more priority, when needed, to the Junction 5 off slip. The addition of queue detectors and MOVA would allow variable cycle times to be used to ensure any queues on the Junction 5 off slip do not reach the M11 mainline.	Consultation with Essex County Council
DW8	Transport - Public Transport	Explore the potential and viability of new bus services and increased frequency of existing bus services to connect key settlements	Essential	ECC / Developers / TfL / Other Operators	Developer Contributions (S278 for physical infrastructure; S106) / TfL / Other Operators / ECC	Unknown	2016-2031						Consultation with Essex County Council
DW9	Transport - Public Transport	Installation of Real Time Travel Information at train stations and bus stops across the District	Required	ECC	Developer Contributions (S106) / ECC	£100,000 - £250,000	Unknown	Unknown				Initial cost estimate provided by ECC - costs depend on number of interventions and may be refined accordingly.	Member Workshop discussion groups, consultation with Essex County Council
DW10	Transport - Public Transport	Additional rail capacity through longer carriages	Essential	Network Rail	Network Rail	Unknown	Unknown	Unknown				This intervention will be supported by Crossrail, which will provide additional rail capacity	Consultation with Network Rail
DW11	Transport - Active Transport	A review of all one way streets in each town to identify whether there is scope for area wide contra-flows for cycling and walking.	Essential	EFDC / ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / Grant funding	TBC	Unknown	Unknown					EFDC Cycling Action Plan 2018
DW12	Health	Contribution to healthcare to serve new development, covering primary healthcare, mental healthcare, community healthcare and acute care	Essential	NHS England / Developers	Developer Contributions (S106)	Unknown	To be considered further by CCG	To be considered further by CCG				Contribution to be used to support delivery of GP floorspace set out elsewhere in this IDP	Consultation with NHS Strategic Estates Planning Service as part of Harlow and Gilston Garden Town IDP

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2036	Notes	Baseline Source
DW13	Open Space and Green Infrastructure	Existing allotment sites to be upgraded to improve facilities and entrances	Required	EFDC	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of schemes	Unknown	Unknown				Upgrades could include better parking provision, improved water supply, and better site security. Priorities for improvement include: better signage on all sites in Buckhurst Hill, Lime Avenue in Chigwell, Moreton Road in Ongar, and all sites in Nazeing and Roydon; improved security fencing and access at Tylers Green in North Weald Bassett; and better, more welcoming access at all sites in Waltham Abbey.	Open Space Strategy
DW14	Open Space and Green Infrastructure	Upgrades to play areas where required, including: interventions to make them more welcoming; upgrades to rubberised safety surfacing in provision for children and young people; and more exciting and stimulating play equipment.	Required	EFDC	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of schemes	Unknown	Unknown				Upgrades could involve informative signage and landscaping, including more tree planting to increase their attraction, enhance biodiversity, and provide shade.	Open Space Strategy
DW15	Open Space and Green Infrastructure	Improving existing links through signage, physical upgrades etc. and extending the natural and semi-natural green space network	Required	EFDC	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of schemes	Unknown	Unknown				Upgrades could include: enhanced linkages to existing walking and cycling routes; improved waymarking, including of rights of way and footpaths; and the linking of different greenspaces to connect open space, link settlements, and provide improved wildlife habitats.	Open Space Strategy
DW16	Open Space and Green Infrastructure	Improvement of existing amenity open spaces to increase their functionality and experience	Required	EFDC	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of schemes	Unknown	Unknown				Improvements could take the form of additional seating, the provision of interpretive signage where there is local heritage and history or landscaping to promote biodiversity.	Consultation with Epping Forest District Council
DW17	Open Space and Green Infrastructure	Wayfinding Strategy for the District's Public Rights of Way network to make the network more legible and accessible and to guide people to underused GI assets wherever possible and/or appropriate	Required	TBC	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of schemes	2016-2033						Draft Green Infrastructure Strategy 2020
DW18	Open Space and Green Infrastructure	Wildflower verges to district roads	Required	TBC	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of schemes	2016-2033						Draft Green Infrastructure Strategy 2020
DW19	Open Space and Green Infrastructure	Wide-scale tree planting	Required	TBC	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of schemes	2016-2033					A public 'Call for Tree Planting Sites' using social media, the involvement of Parish and Town councils, existing community groups the project identifies small and medium scale sites which can be planted by either communities, the Council, or partner organisations.	Draft Green Infrastructure Strategy 2020



Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2036	Notes	Baseline Source
DW20	Open Space and Green Infrastructure	Art curation	Required	TBC	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of schemes	2016-2033					Establish a means through which the landscape is curated with art of the highest quality.	Draft Green Infrastructure Strategy 2020
DW21	Open Space and Green Infrastructure	Contributions towards air quality monitoring, Suitable Alternative Natural Greenspace (SANG) and Strategic Access Management and Monitoring (SAMMS)	Required	Various	Developer Contributions (S106)	TBC	2016-2033	As development is consented				Requirements for contributions will vary by distance from Epping Forest SAC. Locations for SANGs are set out elsewhere in the Infrastructure Delivery Schedule.	Draft Green Infrastructure Strategy 2020

## 4.2 Infrastructure Delivery Schedule: Strategic Sites (Combined)

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
SSC1	Utilities	Increased household waste recycling capacity and / or facility upgrades in order to serve additional demand in Essex	Required	Developer / ECC	Developers / Grant	£200,000	2023-2028						Consultation with Essex County Council
SSC2	Utilities	Measures to support implementation of the Garden Town Digital Strategy	Required	Providers / Developers	Providers / Developers	Unknown	2016-2023					A wider Garden Town Digital Strategy is being prepared; exact interventions still to be confirmed.	Consultation with Harlow and Gilston Garden Town
SSC3	Transport - Highways	Minor upgrades to Junction 7 to provide access to Latton Priory and improvements to B1393	Critical	Highways England / ECC	Highways England - Road Investment Strategy 2	£5,000,000	2023-2033					Essex County Council are exploring opportunities for other sources of funding. Of the cost, approximately £3m is related specifically to the delivery of Latton Priory and the remainder is related to the wider delivery of growth in the area (including Latton Priory).	Memorandum of Understanding on Highways and Transportation Infrastructure for the West Essex/ East Hertfordshire Housing Market Area, consultation with Essex County Council
SSC4	Transport - Highways	Second Stort Crossing including realignment of the Eastwick Road and new junction allowing access to Terlings Park and Pye Corner, Pye Corner bypass including junction between north-south section and east-west section, the remainder of the Eastern Crossing including River Way Bridge, and severance mitigation measures at Terlings Park	Essential	Developer / HCC	Developer contributions (S278) / HIF	£92,840,000	2022-2033					A northern bypass linking the A414 to the north of the River Stort to help ease congestion, and improve connectivity. Reduce traffic flows on the western section of Edinburgh Way in Harlow. <b>Note, this intervention is outside the District but within the Garden Town. Contributions expected from other Garden Town growth - refer to the Harlow and Gilston Garden Town IDP for further information.</b>	Technical Note 3 Stort Crossing/ Northern Bypass Initial Testing (May 2016); Consultation with Hertfordshire County Council Highways
SSC5	Transport - Highways	Velizy / Second Avenue works including signalled crossing and walking and cycling at grade crossing	Required	ECC	Developer contributions (S106)	£10,000,000	2021-2026					<b>Note, this intervention is outside the District but within the Garden Town. Contributions expected from other Garden Town growth - refer to the Harlow and Gilston Garden Town IDP for further information.</b>	Consultation with Essex County Council as part of Harlow and Gilston Garden Town IDP
SSC6	Transport - Highways	Gilden Way / Harlowbury development primary site access	N/A (fully funded)	ECC	Developer contributions (S106)	£800,000 (fully funded)	2021-2026					<b>Note, this intervention is outside the District but within the Garden Town.</b>	Consultation with Essex County Council as part of Harlow and Gilston Garden Town IDP
SSC7	Transport - Highways	Gilden Way / Harlowbury development secondary site access	N/A (fully funded)	ECC	Developer contributions (S106)	£200,000 (fully funded)	2021-2026					<b>Note, this intervention is outside the District but within the Garden Town.</b>	Consultation with Essex County Council as part of Harlow and Gilston Garden Town IDP
SSC8	Transport - Highways	Gilden Way / (B183) Mulberry Green for Harlowbury	N/A (fully funded)	ECC	Developer contributions (S106)	£100,000 (fully funded)	2021-2026					<b>Note, this intervention is outside the District but within the Garden Town.</b>	Consultation with Essex County Council as part of

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
													Harlow and Gilston Garden Town IDP
SSC9	Transport - Highways	A414 / Edinburgh Way / Cambridge Road (A1184) / Station Road, including junction improvements and road dualling	N/A (fully funded)	ECC	Growing Places Fund	£10,000,000 (fully funded)	2021-2026					<b>Note, this intervention is outside the District but within the Garden Town.</b>	Consultation with Essex County Council as part of Harlow and Gilston Garden Town IDP
SSC10	Transport - Highways	Closure of Old Road through traffic at rail bridge adjust A1184 / Old Road signals	N/A (fully funded)	ECC	Developer contributions (S106)	£250,000	2021-2026					<b>Note, this intervention is outside the District but within the Garden Town.</b>	Consultation with Essex County Council as part of Harlow and Gilston Garden Town IDP
SSC11	Transport - Highways	Cycling and walking improvements to A1025 Second Avenue / Manston / Tripton junction; cycling and walking improvements to the A1025 Second Avenue / Howard Way improvements / pedestrian crossings; and public transport and general capacity improvements	Essential	ECC	Developer contributions (S106)	£7,000,000	2021-2026					<b>Note, this intervention is outside the District but within the Garden Town. Contributions expected from other Garden Town growth - refer to the Harlow and Gilston Garden Town IDP for further information.</b>	Consultation with Essex County Council as part of Harlow and Gilston Garden Town IDP
SSC12	Transport - Public Transport	Sustainable Transport Corridors and Town Centre Transport Hub	Essential	ECC / HCC	HIF (grant and claw back to be recycled) / Developer contributions (S106)	£157,161,083	2021-2033					The costs are reflective of the stage of the works, and will be further refined as more detail on the Sustainable Transport Corridors becomes available. Cost excludes bus road across Central Stort Crossing, to avoid double counting. Contributions from wider regeneration of Harlow town centre expected to some town centre upgrades. <b>Note, some of this intervention is outside the District but within the Garden Town. Contributions expected from other Garden Town growth - refer to the Harlow and Gilston Garden Town IDP for further information.</b>	Consultation with Essex County Council and Hertfordshire County Council as part of Harlow and Gilston Garden Town IDP
SSC13	Transport - Public Transport	Public and active transport support, including; revenue funding for Garden Town Active Travel Plan coordinator(s); travel vouchers; and ongoing stewardship of active transport links	Required	ECC / HCC	Developer contributions (S106)	£7,317,195	2021-2033					<b>Note, some of this intervention is outside the District but within the Garden Town. Contributions expected from other Garden Town growth - refer to the Harlow and Gilston Garden Town IDP for further information.</b>	Consultation with Essex County Council and Hertfordshire County Council as part of Harlow and Gilston Garden Town IDP

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
SSC14	Transport - Public Transport	Travel Plan measures/monitoring	Required	ECC / HCC / Operators	Developer contributions (S106)	Unknown	2021-2033						
SSC15	Transport - Public Transport	Passenger transport infrastructure and services	Required	ECC / HCC / Operators	Developer contributions (S106)	Unknown	2021-2033						
SSC16	Education	SEN provision	Essential	ECC / HCC / Academy Trusts / Developers	Developer contributions (S106) / DfE / ECC / HCC	Unknown	Unknown			Unknown		To meet need across Garden Town. Requirements likely to be: expansion of existing special school by 24 places; development of 75 place special school (via free school application); and development of 8 place provision for children with social, emotional and mental health needs in a mainstream primary school. Not all of these places may be additional to the mainstream requirements; however, given the small impact no adjustment has been made to the mainstream requirements.	Consultation with Essex County Council as part of Harlow and Gilston Garden Town IDP

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
SSC17	Education	Post 16 education provision (details to be confirmed)	Essential	ECC	ESFA, DfE	Unknown	Unknown	Unknown				To meet need across Garden Town.	Consultation with Essex County Council as part of Harlow and Gilston Garden Town IDP
SSC18	Education	Contribution to employment and training to support Harlow Skills Strategy	Required	HDC / EFDC / EHDC / ECC / HCC / Providers	Developer contributions (S106)	Unknown	Unknown	Unknown				To meet need across Garden Town.	Consultation with Essex County Council as part of Harlow and Gilston Garden Town IDP
SSC19	Health	639 sqm additional GP floorspace across the Harlow strategic sites	Essential	NHS England / Developers	NHS England / Developer Contributions (S106)	£0	To be considered further by CCG	To be considered further by CCG				Provision through expansions and/or relocations of existing surgeries, and/or new facilities - to be further considered by the CCG. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Consultation with CCG (revised by Arup to reflect Main Modifications)
SSC20	Open Space and Green Infrastructure	Ongoing stewardship and governance of open space	Required	Stewardship body (potentially under Qualis Group)	Developers / Grant / Revenues / Other	Unknown	2021-2033						Harlow and Gilston Garden Town Stewardship Advice Stage 2 Final Report
SSC21	Community Facilities	Emergency services hub (approx. 0.7ha site), including Police, Fire and Rescue and Ambulance Services	Essential	Essex Police / Hertfordshire Constabulary / East of England Ambulance Service NHS Trust / Essex County Fire and Rescue Service / Hertfordshire Fire and Rescue Service	Essex Police / Hertfordshire Constabulary / East of England Ambulance Service NHS Trust / Essex County Fire and Rescue Service / Hertfordshire Fire and Rescue Service / Developers	£687,340 (contribution from EFDC sites only)	2023-2028					As part of developing/reviewing the accommodation requirements of the respective organisations, there is an aspiration to reduce the combined site/accommodation requirements through efficiencies that would be gained by working collaboratively, e.g. through shared messing, locker rooms, toilet facilities etc. Note, the location of the new facility is not yet known and so land costs are not included in the cost estimate.	Consultation with Essex Police, Hertfordshire Police and Hertfordshire Fire and Rescue as part of Harlow and Gilston Garden Town IDP
SSC22	Community Facilities	Joint police custody facility (approx. 1.2ha site) to service Garden Town and development and adjoining area	Essential	Essex Police / Hertfordshire Constabulary	Essex Police / Hertfordshire Constabulary / Developers	2863919 (contribution from EFDC sites only)	2023-2028					Due to the nature of custody this facility does not need to be co-located with the police station and therefore is probably better suited to an industrial estate location, assuming that there are good transport links/access roads. Note, the location of the new facility is not yet known and so land costs are not included in the cost estimate.	Consultation with Essex Police and Hertfordshire Police as part of Harlow and Gilston Garden Town IDP

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
SSC23	Sports and Leisure	New affordable community leisure centre within Harlow, comprising: six-lane 25m pool plus teaching pool; four court sports hall; 100-150 station fitness suite; and two studios	Required	EHDC / HCC / Providers	Developer contributions (S106) / Grant funding	£11,015,680	2023-2033					Site to be determined. Costs are based on Sports England standard costs; actual costs will be site-specific and may be higher. <b>Note, this intervention is outside the District but within the Garden Town. Contributions expected from other Garden Town growth - refer to the Harlow and Gilston Garden Town IDP for further information.</b>	2017 Harlow Sports Facilities Assessment Study

## 4.5 Infrastructure Delivery Schedule: East of Harlow

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
EHA1	Utilities	Likely upgrades to strategic wastewater network infrastructure	Critical	Thames Water	Thames Water / Developer Funded (local upgrades only)	Unknown	Unknown	Unknown				Anticipated that Thames Water will meet the costs of strategic upgrades, but that any local upgrades would be borne by the developer(s).	Thames Water settlement assessment (2016)
EHA2	Utilities	Diversion of gas mains	Required	Cadent Gas	UKPN /Developer Agreement	Site dependent	Dependent on phasing of site					Potential diversion of gas mains which pass through proposed development sites. Alternative is to retain in position and design the site around an easement along the pipes. The potential easement / diversion will be dependant on the type of main - the options for these sites should be considered on a site-by site basis, in consultation with Cadent Gas.	Engagement with EFDC
EHA3	Flood Protection	Measures to ensure the protection of the functional flood plain and restriction of surface water run-off into Pincey Brook to no more than existing rates	Critical	Environment Agency / EFDC / ECC / Developers	Developer Funded	Unknown	Unknown	Unknown				Flood protection should be considered as part of strategic masterplanning to ensure development is directed towards flood zone 1, and any necessary mitigation measures are incorporated into the design of the scheme. Further consultation will be required with the Environment Agency and EFDC Drainage Team.	Consultation with EFDC
EHA4	Transport - Highways	Sheering Way access to East Harlow, including a single junction upgrade and link-road to the site	Critical	Developers	Developer contributions (S278)	£4,000,000	2026-2031 (depending on phasing of site)						Jacobs Technical note 5; discussions with Essex County Council

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
EHA5	Transport - Highways	Nursery site (east of Gilden Way) access to East Harlow, including a single junction upgrade and link-road to the site	Critical	Developers	Developer contributions (S278)	£2,000,000	2026-2031 (depending on phasing of site)						Jacobs Technical note 5; discussions with Essex County Council
EHA6	Transport - Highways	Hospital relocation to East Harlow - transport mitigation measures including M11 Junction 7A capacity works	Essential	NHS Princess Alexandra Hospital Trust	Developer contributions (S106)/grant/NHS Princess Alexandra Hospital Trust	£25,000,000						Essex County Council estimate the cost to be £25,000,000 - £50,000,000 - note, this is a high level allowance only. This would instead form part of the overall cost package for the relocation. See also EHA12.	Consultation with Essex County Council
EHA7	Transport - Public Transport	Explore opportunities to extend bus routes throughout the East Harlow development	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure; S106) / Grant Funding	£1,000,000	2026-2033					Note: First Avenue is already a bus route; intervention relates to additional routes and/or increased frequency/capacity on existing routes required to serve development.	Consultation with Essex County Council
EHA8	Transport - Public Transport	Explore opportunities to link strategic site into off-road cycle and walking network	Essential	ECC / Developers / Garden Town	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / Garden Town / Grant Funding	Unknown	2026-2033					Costs to be worked up and confirmed by ECC.	Consultation with Essex County Council
EHA9	Education	68 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£1,038,214	2026-2033					Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council



Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
EHA10	Education	New (2.1ha site) primary school, including early years provision	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£8,613,360	2026-2031					Cost shown includes some early years provision (refer to EHA9). Phasing estimated based on expected delivery of housing and may be further refined. Land will also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites. Further work required to determine an apportionment across the relevant local authorities and sites. <b>Note, this intervention will support wider growth including the Harlow portion of the East of Harlow site.</b>	Consultation with ECC
EHA11	Education	New (10ha site) secondary school	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£22,436,100	2026-2033					Cost shown is a pro-rata contribution estimated by ECC. Phasing estimated based on expected delivery of housing and may be further refined. Land will also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites. Further work required to determine an apportionment across the relevant local authorities and sites. <b>Note, this intervention will support wider growth including the Harlow portion of the East of Harlow site.</b>	Consultation with ECC
EHA12	Health	Potential redevelopment of Princess Alexandra Hospital on land at East of Harlow	Essential	NHS England / NHS PAH Trust	Department for Health and Social Care / NHS England / NHS Princess Alexandra Hospital Trust / NHS West Essex CCG / Private Financing	Unknown	2025-2033					Costs likely to be met through a mixture of central government funding (currently estimated to be around £170m although not confirmed), debt funded and capital receipts - developer contributions will also be sought but the level and geographical extent is not currently known.	Consultation with EFDC and Princess Alexandra Hospital

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
EHA13	Health	Approx. 0.87 FTE Dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2021-2031		0.40 FTE Dentists	0.47 FTE Dentists		Newly arising need only, on the EFDC portion of the site only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output.
EHA14	Open Space and Green Infrastructure	Appropriate provision of public parks and gardens in line with Fields in Trust Standards and agreement with EFDC (likely to be around 1.40 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£384,386	2021-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision. Indicative figures relate to the EFDC portion of the site only.	Modelled output, based on standards in Open Space Strategy
EHA15	Open Space and Green Infrastructure	Appropriate provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 1.05 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£154,030	2021-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision. Indicative figures relate to the EFDC portion of the site only.	Modelled output, based on standards in Open Space Strategy
EHA16	Open Space and Green Infrastructure	Appropriate provision for natural and semi-natural space in line with Fields in Trust Standards and agreement with EFDC (likely to be around 3.15 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£165,067	2021-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision. Indicative figures relate to the EFDC portion of the site only.	Modelled output, based on standards in Open Space Strategy
EHA17	Open Space and Green Infrastructure	Appropriate provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.44 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£102,233	2021-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision. Indicative figures relate to the EFDC portion of the site only.	Modelled output, based on standards in Open Space Strategy

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
EHA18	Open Space and Green Infrastructure	Appropriate provision of allotments in agreement with EFDC (likely to be around 0.35 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£8,373	2021-2033					Where appropriate, development proposals will be required to provide allotments in accordance with the guidance contained in the Open Space Strategy. Indicative figures relate to the EFDC portion of the site only.	Modelled output, based on standards in Open Space Strategy
EHA19	Open Space and Green Infrastructure	Compensatory Biodiversity Action Plan (BAP) habitat	Essential	Developer / EFDC / Natural England	Developer Funded	Unknown	2021-2033					On-site compensatory habitat creation, in line with BAP priorities.	Consultation with EFDC
EHA21	Community Facilities	Approx. 375 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£832,875	2021-2033					Site(s) not yet identified - to be identified as part of masterplanning. Land will also be required.	Consultation with ECC as part of Harlow and Gilston Garden Town IDP

## 4.7 Infrastructure Delivery Schedule: Latton Priory

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
LPR1	Utilities	Likely upgrades to strategic wastewater network infrastructure	Critical	Thames Water	Thames Water / Developer Funded (local upgrades only)	Unknown	2021-2026					Anticipated that Thames Water will meet the costs of strategic upgrades, but that any local upgrades would be borne by the developer(s). Early intervention required.	Thames Water settlement assessment (2016)
LPR2	Transport - Highways	Link road and B1393 junction from Latton Priory to M11 Junction 7	Critical	Developer	Developer contributions (S278)	£5,000,000	2021-2026					Lower end estimate; costs may be higher following detailed design.	Consultation with Essex County Council
LPR3	Education	96 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£1,465,714	2021-2033		33 places	36 places	26 places	Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council
LPR4	Education	New (2.1ha site) primary school, including early years provision	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£8,613,360	2021-2026					Cost shown includes some early years provision (refer to LPR3). Phasing estimated based on expected delivery of housing and may be further refined. Land will also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites. Further work required to determine an apportionment across the relevant local authorities and sites.	Consultation with ECC
LPR5	Education	New (10ha site) secondary school	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£22,436,100	2021-2031					Cost provided by ECC. Phasing estimated based on expected delivery of housing and may be further refined. Land will also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites. Further work required to determine an apportionment across the relevant local authorities and sites.	Consultation with ECC
LPR6	Health	Approx. 1.23 FTE Dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2021-2033		0.52 FTE Dentists	0.58 FTE Dentists	0.13 FTE Dentists	Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations.	Modelled output

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
												Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	
<b>LPR7</b>	Open Space and Green Infrastructure	Appropriate provision of public parks and gardens in line with Fields in Trust Standards and agreement with EFDC (likely to be around 1.97 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£540,885	2021-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
<b>LPR8</b>	Open Space and Green Infrastructure	Appropriate provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 1.48 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£217,109	2021-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
<b>LPR9</b>	Open Space and Green Infrastructure	Appropriate provision for natural and semi-natural space in line with Fields in Trust Standards and agreement with EFDC (likely to be around 4.44 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£232,666	2021-2031					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
<b>LPR10</b>	Open Space and Green Infrastructure	Appropriate provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.62 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£144,056	2021-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
<b>LPR11</b>	Open Space and Green Infrastructure	Appropriate provision of allotments in agreement with EFDC (likely to be around 0.49 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£11,722	2021-2033					Where appropriate, development proposals will be required to provide allotments in accordance with the guidance contained in the Open Space Strategy.	Modelled output, based on standards in Open Space Strategy

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
LPR12	Open Space and Green Infrastructure	Site specific Green Infrastructure Interventions	Required	Developers	Developer Contributions (S106)	Unknown	2021-2033					Site specific requirements in accordance with EFDC Local Plan Policy SP 7 The Natural Environment, Landscape Character and Green and Blue Infrastructure; Chapter 5 Place Policies - Vision and Policies by Settlement; Site Specific Requirements for site allocations in Part 2 of the Local Strategy; and Green Infrastructure Strategy. Policies and site allocation set out requirements for the developer on a site by site basis, including green infrastructure interventions, the protection of ecological assets and high quality landscape design. Site infrastructure details will be confirmed at master planning stage. Likely to include strategic walking routes which tie into the Stort and Lea Valley and with Harlow's green spaces and town centre, and activation and interpretation projects to engage a wider range of people with the countryside.	Draft Green Infrastructure Strategy 2020 / Consultation with EFDC
LPR13	Open Space and Green Infrastructure	Suitable Alternative Natural Greenspace	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Unknown	2021-2033					See DW20.	Draft Green Infrastructure Strategy 2020
LPR14	Community Facilities	Approx. 500sqm of new / additional / improved (multi-purpose) community space (& facilities) to meet the needs of new residents in Latton Priory, including provision for community halls, youth facilities, other public / community service space.	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£1,110,500	2021-2033					Site(s) not yet identified - to be identified as part of masterplanning. Land will also be required.	Consultation with Essex County Council as part of Harlow and Gilston Garden Town IDP

## 4.8 Infrastructure Delivery Schedule: Water Lane Area

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
WLA1	Utilities	Likely upgrades to strategic wastewater network infrastructure	Critical	Thames Water	Thames Water / Developer Funded (local upgrades only)	Unknown	Unknown	Unknown				Anticipated that Thames Water will meet the costs of strategic upgrades, but that any local upgrades would be borne by the developer(s).	Thames Water settlement assessment (2016)
WLA2	Utilities	33kV Overhead Head Lines may require diverting for masterplanning of the site.	Critical	UKPN / Developers	Providers / Developer Funded	Unknown	2021-2033					These OHLs will require an easement along them, which may affect the masterplanning of the site. Potential to divert these to optimise the site.	UKPN network maps
WLA3	Transport - Highways	Enhancements to Water Lane/A1169 roundabout; A1025/Abercrombie Way signals; and, traffic calming along the A1169	Critical	Developers	Developer contributions (S278)	£12,000,000	2021-2026						Developer Forum pro-forma response
WLA4	Transport - Public transport	Upgrades to bridleway to provide north/south combined footway and cycleway to connect to improve connectivity for the strategic site	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / Grant Funding	Unknown	2021-2026					Costs to be worked up and confirmed by ECC.	Consultation with Essex County Council
WLA5	Transport - Public transport	Possible extension of Route 1 bus service, or diversion of Route 87 bus service	Essential	ECC / Operators / Developers	Developer Contributions (S278 for physical infrastructure; S106) / Grant Funding	£1,000,000	2021-2026					Transport intervention identified to improve local access to site, however may provide other localised highways improvements.	Developer Forum pro-forma response
WLA6	Transport - public transport	New busway service to support the Water Lane Area development, linking into the sustainable transport corridors, and providing bus, walking and cycle links to the Pinnacles and town centre.	Essential	ECC / Harlow Council / Garden Town / Developers	Developer Contributions (S278 for physical infrastructure; S106) / Garden Town / LEP RGF	£7,000,000-10,000,000	2021-2026					This transport intervention will provide extended bus routes throughout the Water Lane Area development.	Consultation with Essex County Council
WLA7	Education	189 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£2,885,625	2021-2033		45 places	99 places	45 places	Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council



Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
WLA8	Education	New (2.5ha site) primary school, including early years provision	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£8,613,360	2021-2026					Cost shown includes some early years provision (meeting a portion of the requirement outlined in WLA7). Phasing estimated based on expected delivery of housing and may be further refined. Land will also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Consultation with ECC
WLA9	Health	Approx. 2.43 FTE Dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2021-2033		1.27 FTE Dentists	0.92 FTE Dentists	0.24 FTE Dentists	Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output.
WLA10	Open Space and Green Infrastructure	Appropriate provision of public parks and gardens in line with Fields in Trust Standards and agreement with EFDC (likely to be around 3.88 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£1,065,297	2021-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
WLA11	Open Space and Green Infrastructure	Appropriate provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 2.91 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£426,883	2021-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
WLA12	Open Space and Green Infrastructure	Appropriate provision for natural and semi-natural space in line with Fields in Trust Standards and agreement with EFDC (likely to be around 8.47 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£443,848	2021-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
WLA13	Open Space and Green Infrastructure	Appropriate provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 1.21 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£281,141	2021-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy



Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
WLA14	Open Space and Green Infrastructure	Appropriate provision of allotments in agreement with EFDC (likely to be around 0.97 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£23,205	2021-2033					Where appropriate, development proposals will be required to provide allotments in accordance with the guidance contained in the Open Space Strategy.	Modelled output, based on standards in Open Space Strategy
WLA15	Open Space and Green Infrastructure	Site specific Green Infrastructure Interventions	Required	Developers	Developer Contributions (S106)	Unknown	2021-2033					Site specific requirements in accordance with EFDC Local Plan Policy SP 7 The Natural Environment, Landscape Character and Green and Blue Infrastructure; Chapter 5 Place Policies - Vision and Policies by Settlement; Site Specific Requirements for site allocations in Part 2 of the Local Plan; and Green Infrastructure Strategy. Policies and site allocation set out requirements for the developer on a site by site basis, including green infrastructure interventions, the protection of ecological assets and high quality landscape design. Site infrastructure details will be confirmed at master planning stage. Likely to include strategic walking routes which tie into the Stort and Lea Valley and with Harlow's green spaces and town centre, and activation and interpretation projects to engage a wider range of people with the countryside.	Draft Green Infrastructure Strategy 2020 / Consultation with EFDC
WLA16	Open Space and Green Infrastructure	Suitable Alternative Natural Greenspace	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Unknown	2021-2033					See DW20.	Draft Green Infrastructure Strategy 2020
WLA17	Open Space and Green Infrastructure	Activation and interpretation projects to engage a wider range of people with the countryside	Required	Developers	Developer Contributions (S106)	Unknown	2021-2033						Draft Green Infrastructure Strategy 2020 Consultation with EFDC
WLA18	Community Facilities	Approx. 1,000sqm of new / additional / improved (multi-purpose) community space (& facilities) to meet the needs of new residents in Water Lane area, including provision for community halls, youth facilities, other public / community service space	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£2,221,000	2021-2033					Site(s) not yet identified - to be identified as part of masterplanning. Land will also be required.	Consultation with Essex County Council as part of Harlow and Gilston Garden Town IDP

## 4.9 Infrastructure Delivery Schedule: Buckhurst Hill

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
BUC1	Transport - Active Transport	Roding Valley Tube station to LB Redbridge border at Monkams Lane and Chigwell Road off-road shared use cycle track	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	£500,000 - £1,000,000	Unknown		Unknown			Existing bridleway (Walnut Way PROW 32_64) footway conversion to allow off-road shared use cycle track between Buckhurst Way and Hornbeam Road. Shared use cycle track continues E-W along route of bridleway, crossing under the Central Line, over the River Roding and onto Luxborough Lane as far as High Road. Potential for route to continue on road, SW along Chigwell High road to LB Redbridge border.	EFDC Cycling Action Plan 2018
BUC2	Transport - Active Transport	Roding Cycle hub route - Highland Avenue and Roding Gardens signed Quietway route	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	£100,000 - £500,000	Unknown		Unknown			Create a new signed Quietway route from Valley Hill, NW -SE along Highland Avenue to the existing footpath (PROW 304_29). Conversion to shared use required along PROW_29 and PROW 304_27, providing access to Loughton Underground station. Improve existing footpath (PROW 304_27) adjacent to playing fields, to enable a conversion to shared use cycle track, allowing access to the station.	EFDC Cycling Action Plan 2018
BUC3	Transport - Active Transport	New signed on-rad route on Roding Lane between David Lloyd, Guru Gobind Singh Khalsa College and Buckhurst Hill station	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	< £100,000	Unknown		Unknown				EFDC Cycling Action Plan 2018
BUC4	Transport - Active Transport	Off road route to David Lloyd Centre and Gobind Singh Khalsa College	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	£500,000 - £1,000,000	Unknown		Unknown			From Roding Lane, conversion of existing footpath (PROW 305_51) to shared use foot/cycleway. New off-road shared use footpath/cycleway within park, linking existing PROW 305_51 and PROW 303_68. Route continues along new conversion of PROW 303_68 to shared use to provide access to the David Lloyd Centre and Gobind Singh Khalsa College.	EFDC Cycling Action Plan 2018
BUC5	Transport - Active Transport	New advisory cycle lanes E-W from Chigwell Rise cycle route and access to Chigwell Parade and tube station	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	£500,000 - £1,000,000	Unknown		Unknown			New advisory cycle lanes E-W along Roding Lane and Chigwell Rise, between David Lloyd Centre access road and Lee Grove. New signed Quietway along Brook Way and Brook Mews.	EFDC Cycling Action Plan 2018

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
BUC6	Transport - Active Transport	Nature Reserve Trail Path	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	£1,000,000 +	Unknown	Unknown				Work in partnership with the Essex Wildlife Trust to establish a cycle way through the nature reserve.	EFDC Cycling Action Plan 2018
BUC7	Transport - Active Transport	New signed on-road advisory cycle lanes from Buckhurst Hill Station to Monkham's Lane (linking with LB Redbridge existing routes)	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	£50,000	Unknown	Unknown				New signed on-road advisory cycle lanes between Buckhurst Hill underground station and Knighton Lane. New advisory cycle lanes (N-S) along Victoria Road, from Buckhurst Hill tube station to Princes Road. New westbound advisory cycle lane along Princes Road, Queens Road and new signed Quietway along Knighton Lane (approx. 1 mile length). New eastbound advisory cycle lane along Queens Road, from Knighton Lane to Victoria Road, providing access to shopping area (approx. 900m).	EFDC Cycling Action Plan 2018
BUC8	Transport - Active Transport	New signed on-road Quietway between Buckhurst Hill Underground station to North End and Epping Forest	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	< £100,000	Unknown	Unknown				New signed on-road Quietway along Palmerston Road and Roebuck Lane between Buckhurst Hill Underground Station and Roebuck Green. Provides links to other schemes and onward links to Epping Forest.	EFDC Cycling Action Plan 2018
BUC9	Transport - Active Transport	Queen's Road cycling and walking interventions including quietway signage, pavement widening and cycle parking.	Essential	ECC/ EFDC	Central Government	£28,015	2016-2021					Active travel interventions on Queen's Road in response to COVID-19. Interventions identified include temporary ground markings for parking places; directional boards for nearby cycle lanes and for pedestrian priority zones; pavement widening; temporary crossings; and sheffield cycle stands.	EFDC COVID-19 Active Travel Bid
BUC10	Education	15 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£229,018	2016-2031	5 places	8 places	2 places		Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with ECC
BUC11	Health	48 sqm additional GP floorspace across the Buckhurst Hill & Chigwell Neighbourhood Area	Essential	NHS England / Developers	NHS England / Developer Contributions (S106)	£162,816	To be considered further by CCG	To be considered further by CCG				Floorspace required over entire Neighbourhood Area; may also be delivered in Chigwell (refer to CHG6). Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Consultation with CCG (revised by Arup to reflect Main Modifications)

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
BUC12	Health	Approx. 0.24 FTE Dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2016-2021	0.24 FTE				Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output
BUC13	Open Space and Green Infrastructure	Additional provision of public parks and gardens in line with Fields in Trust Standards and agreement with EFDC (likely to be around 4.19 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£1,150,411	2016-2031					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
BUC14	Open Space and Green Infrastructure	Additional provision of amenity greenspace (potentially to south of Buckhurst Hill) in line with Fields in Trust Standards and agreement with EFDC (likely to be around 7.10 ha).	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£1,041,536	2016-2031					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
BUC15	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 1.99 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£462,372	2016-2031					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
BUC16	Open Space and Green Infrastructure	Consider rationalisation and release of surplus allotments	Required	EFDC	Grant Funding	Unknown	Unknown	Unknown					Open Space Strategy
BUC17	Open Space and Green Infrastructure	Contribution to access management and monitoring of visitors to the Epping Forest Special Area of Conservation (SAC)	Essential	Epping Forest Conservators / City of London Corporation / EFDC / Developers	Developer Contributions (S106)	Variable	2016-2033	As development is consented				Financial contributions should be made in accordance with Visitor Survey Information which demonstrates this is needed. Per dwelling contribution still to be determined. Per dwelling contribution still to be determined.	Consultation with EFDC

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
BUC18	Community Facilities	Approx. 70 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£170,030	2016-2031	40 sqm	20 sqm	10 sqm		Modelled additional community facility space (combined library, youth services and community hall requirement) - newly arising demand only. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output
BUC19	Sports and Leisure	New non-turf pitch at Buckhurst Hill Cricket and Lacrosse Club	Required	EFDC / Developers / Buckhurst Hill CC / ECB / Essex CCB	Developer Contributions (S106) / Grant Funding / ECB Capital Grant Funding / Club Funding	Unknown	2021-2026						Playing Pitch Strategy
BUC20	Sports and Leisure	Four additional pitches at Buckhurst Hill Football Club	Required	EFDC / Developers / Buckhurst Hill FC / Football Foundation / Essex County FA	Developer Contributions (S106) / Grant Funding / Club Funding	Unknown	2016-2021						Playing Pitch Strategy

## 4.10 Infrastructure Delivery Schedule: Chigwell

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
CHG1	Utilities	Local upgrades to wastewater network infrastructure and potential upgrades to water network infrastructure	Critical	Thames Water	Thames Water / Developer Funded	Unknown	Unknown	Unknown				Anticipated that developers would meet the cost of local upgrades in accordance with the charging schedule proposed by Defra.	Thames Water settlement assessment (2016)
CHG2	Utilities	Diversion of gas mains	Required	Cadent Gas	UKPN /Developer Agreement	Site dependent	Site dependent					Potential diversion of gas mains which pass through proposed development site CHIG.R5. Alternative is to retain in position and design the site around an easement along the pipes. The potential easement / diversion will be dependant on the type of main - the options for these sites should be considered on a site-by site basis, in consultation with Cadent Gas.	Engagement with EFDC
CHG3	Education	48 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£732,857	2016-2031	21 places	20 places	7 places		Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with ECC
CHG4	Education	0.5FE expansion of one primary school within Chigwell / Lambourne Forecast Planning Group, and/or temporary accommodation replacement	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£2,072,160	2030-2031					Costs provided by ECC (across all settlements in the Forecast Planning Group). Expansion in Chigwell, Stapleford Abbots or Lambourne. Phasing estimated based on expected delivery of housing and may be further refined.	Consultation with ECC
CHG5	Education	1FE expansion of secondary schools within Loughton Forecast Planning Group	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£6,181,500	2028-2029					Costs provided by ECC (across all settlements in the Forecast Planning Group). Expansion in Loughton and/or Chigwell. Phasing estimated based on expected delivery of housing and may be further refined.	Consultation with ECC
CHG6	Health	48 sqm additional GP floorspace across the Buckhurst Hill & Chigwell Neighbourhood Area	Essential	NHS England / Developers	NHS England / Developer Contributions (S106)	£162,816	To be considered further by CCG	To be considered further by CCG				Floorspace required over entire Neighbourhood Area; may also be delivered in Buckhurst Hill (refer to BUC11). Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Consultation with CCG (revised by Arup to reflect Main Modifications)



Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
CHG7	Health	Approx. 0.73 FTE dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2016-2031	0.35 FTE Dentists	0.19 FTE Dentists	0.19 FTE Dentists		Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output.
CHG8	Open Space and Green Infrastructure	Additional provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 4.33 ha).	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£635,190	2016-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
CHG9	Open Space and Green Infrastructure	Additional provision of public parks and gardens, which could take the form of a public park, in line with Fields in Trust Standards and agreement with EFDC (likely to be around 12.23 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£3,357,882	2016-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
CHG10	Open Space and Green Infrastructure	Enhanced maintenance, access and signage at High Meadow in Chigwell	Required	EFDC	Grant Funding	Dependent upon exact size and nature of scheme	Unknown	Unknown					Open Space Strategy
CHG11	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 3.64 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£845,745	2016-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
CHG12	Open Space and Green Infrastructure	Additional provision of allotments in agreement with EFDC (likely to be around 2.31 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£55,262	2016-2033					Where appropriate, development proposals will be required to provide allotments in accordance with the guidance contained in the Open Space Strategy.	Open Space Strategy (revised by Arup to reflect Main Modifications)
CHG13	Open Space and Green Infrastructure	Contribution to access management and monitoring of visitors to the Epping Forest Special Area of Conservation (SAC)	Essential	Epping Forest Conservators / City of London Corporation /	Developer Contributions (S106)	Variable	2016-2033	As development is consented				Financial contributions should be made in accordance with Visitor Survey Information which demonstrates this is needed. Per	Consultation with EFDC

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
				EFDC / Developers								dwelling contribution still to be determined.	
CHG14	Community Facilities	Approx. 205 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£505,232	2016-2026	70 sqm	77 sqm	58 sqm		Modelled additional community facility space (combined library, youth services and community hall requirement) - newly arising demand only. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output
CHG15	Sports and Leisure	New 3G artificial grass pitch at Chigwell School	Required	EFDC / Developers / Essex County FA / Football Foundation / Chigwell School	Developer Contributions (S106) / Grant Funding / Club Funding / Chigwell School	£955,000	2021-2026					Pitch to be developed in line with the FA Pitch Register requirements. If a development of this type is not possible at the school, the possibility of a full size 3G artificial grass pitch at Grange Farm should be explored.	Playing Pitch Strategy
CHG16	Sports and Leisure	New non-turf cricket pitch at Fives and Heronians Cricket Club	Required	EFDC / Developers / Fives and Heronians CC / ECB / Essex CCB	Developer Contributions (S106) / Grant Funding / ECB Capital Grant Funding / Club Funding	Unknown	2021-2026						Playing Pitch Strategy
CHG17	Sports and Leisure	Expand the existing artificial grass pitch at Metropolitan Police (Chigwell Sports Club) site, and develop a full sized 3G artificial grass pitch	Required	EFDC / Developers / London Mayors Office / Essex County FA / Football Foundation / Barkingside Youth FC	Developer Contributions (S106) / Grant Funding / Club Funding	£955,000 (new pitch element only)	2026-2031					Intervention dependent on working with the London Mayors Office to confirm a long-term community use agreement, that will provide clubs with security of tenure.	Playing Pitch Strategy
CHG18	Sports and Leisure	Potential refurbishment of existing ancillary facility at Abridge Village Hall	Required	EFDC / Developers / Abridge Parish Council / Football Foundation / Essex County FA	Developer Contributions (S106) / Grant Funding / Club Funding	Unknown	2016-2021						Playing Pitch Strategy



## 4.11 Infrastructure Delivery Schedule: Epping

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
EPP1	Utilities	Upgrade to Lindsey Street sub-station	Critical	National Grid / UKPN	UKPN / Developer Agreement	Unknown	Unknown	Unknown				Upgrade required to serve growth in Epping and North Weald Bassett.	National Grid consultation
EPP2	Utilities	Local upgrades to wastewater network infrastructure and potential minor upgrades to water treatment infrastructure	Critical	Thames Water	Thames Water / Developer Funded	Unknown	Unknown	Unknown				Anticipated that developers would meet the cost of local upgrades in accordance with the charging schedule proposed by Defra.	Thames Water settlement assessment (2016)
EPP3	Transport - Highways	Upgrade to the B1393 High Street / Station Road Roundabout / St John's Road Roundabout	Essential	ECC / Developers	Developer Contributions (S278) / ECC	£2,000,000	2026-2031					Costing dependent on scheme specifics. This option was identified by Essex County Council/ Jacobs as part of the transport modelling process. (Note, was presented as two separate interventions in previous versions of the IDP.)	Consultation with Essex County Council and Jacobs
EPP4	Transport - Highways	Improvements to the B1393 Epping Road/ Theydon Road Signalised Junction.	Essential	ECC / Developers	Developer Contributions (S278) / ECC	£1,000,000	2026-2031					This transport intervention could include a method of signalling known as Microprocessor Optimised Vehicle Actuation (MOVA), however the benefits may be limited due to residential constraints. A mitigation option has been tested and is relatively deliverable to increase the number of lanes. Costs dependent on scheme specifics.	Technical Note 4 - Forecast Modelling Results from 7x Development Scenario Tests (2014), Consultation with Essex County Council/ Jacobs
EPP5	Transport - Highways	Improvements to the B1393 High Road/ Bury Lane Roundabout (Bells Common)	Essential	ECC / Developers	Developer Contributions (S278) / ECC	£1,000,000	2026-2031					Costing dependent on scheme specifics.	Technical Note 4 - Forecast Modelling Results from 7x Development Scenario Tests (2014), Consultation with Essex County Council
EPP6	Transport - Highways	Thornwood Road Signals, Epping - Basic Scheme	Essential	ECC / Developers	Developer Contributions (S278) / ECC	£1,000,000	2020-2025					Target to deliver in highway boundary.	Consultation with Essex County Council and Jacobs
EPP7	Transport - Highways	Minor widening of the Wake Arms roundabout to better allow left hand exit from A121 to Epping Road B1393	Essential	ECC / Developers	Developer Contributions (S278) / ECC	Unknown	Unknown	Unknown				Additional intervention identified following Technical Note.	Consultation with Epping Forest District Council and Essex County Council

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
EPP8	Transport - Active Transport	Hemnall Street Quietway; signage and road markings along 0.7 mile on-road Quietway	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown			Signage and road markings along 0.7 mile on road Quietway on Hemnall Street, between B1393 to High Road. The southern section of Hemnall Street (between Kendal Avenue and Station Road) to permit cyclists contra-flow access along the currently one-way road. Consideration to be given to providing a safe right turn for cyclists at Kendal Avenue travelling westbound along Hemnall Street. Additional contra -flow working for eastbound cyclists along Hemnall Street between Station Road and Clarks Lane. Traffic management measures required to reduce traffic speeds to 20mph to enable shared carriageway.	EFDC Cycling Action Plan 2018
EPP9	Transport - Active Transport	New NE-SW signed and marked on road Quietway along St. John's Road, Bakers Lane and Cottis Lane, linking Coronation Hill (and Epping Primary School) to the town centre (High Street)	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown				EFDC Cycling Action Plan 2018
EPP10	Transport - Active Transport	Epping Primary School Quietway	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown			New NE-SW signed and marked on-road Quietway along Shaftesbury Rd, Coronation Hill and Lower Swaines, between Lindsey Street and Tower Road, connecting to other schemes as well as Epping Primary School and Lower Swaines Recreation Ground. New signed and marked Quietway route then continues NW-SE along Tower Road until High Street, providing access to the town centre.	EFDC Cycling Action Plan 2018
EPP11	Transport - Active Transport	Bakers Lane/Ingels Mead/Beaconsfield Road Quietway providing link to Epping town centre	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown			New on road NE-S signed and marked Quietway along Beaconsfield Road, Ingels Mead and Bakers Lane, connecting to other schemes to provide link to town centre.	EFDC Cycling Action Plan 2018

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
EPP12	Transport - Active Transport	Kendal Avenue Quietway- new signed, on-road advisory cycle lanes to Epping Station from the Hemanll Street Quietway	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown			New signed, on road advisory cycle lanes to Epping Tube Station from the Hemnall Street Quietway via Kendal Avenue and Epping Station access road. There may be sufficient road width of Kendall Avenue to provide mandatory cycle lanes, which would assist cyclists, particularly those cycling uphill (north-westbound). Consideration to be given to provide a safe crossing of Station Road for cyclists, as well as on -road parking along Kendal Avenue.	EFDC Cycling Action Plan 2018
EPP13	Transport - Active Transport	New signed and marked Quietway from Ivy Chimneys to Centre Drive	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown			New signed and marked Quietway along Centre Drive, between Broadoaks and Bridge Hill. Route continues alongside Ivy Chimneys as an off road segregated footway/cycleway footway conversion, adjacent to the westbound carriageway up to Ivy Chimneys Primary School, where existing footpath (PROW189_22), which allows access over the M25, joins Ivy Chimneys Road although has width issues.	EFDC Cycling Action Plan 2018
EPP14	Transport - Active Transport	New on road advisory cycle lane in both directions on Lindsey Street and Church Hill	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown			New on road advisory cycle lane in both directions on Lindsey Street between James Street and Church Hill with a new 20mph speed limit in place. Quietway continues along Church Hill and Church Field. Provide a safe crossing of High Street at Church Field, to allow cyclists to safely negotiate the road and enable a connection with other schemes.	EFDC Cycling Action Plan 2018

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
EPP15	Transport - Active Transport	Non-motorised improvements to and from Epping Tube Station	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£100,000 - £500,000	Unknown		Unknown			New on road advisory cycle lanes along the B1393 between Tower Rd and Half Moon lane. Then route continues as new signed and marked Quietway along Half Moon Lane to Hemnall Street. Route utilises Hemnall Street Quietway, then follows Theydon Place N-S, and Madells. There is a footpath which currently connects Madells and Broadoaks which could be converted to provide an off road section of cycle route. Parking restrictions should also be considered to prohibit waiting vehicles to ensure clear access. Then an on road signed Quietway route onto Centre Drive as far as Station Road (linking to other schemes and access to Epping Station).	EFDC Cycling Action Plan 2018
EPP16	Transport - Active Transport	New on and off road route from Epping via Stonards Hill to Coopersale	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£100,000 - £500,000	Unknown		Unknown			New on and off road route in two sections between Hemnall Street and Coopersale. The first section is a new signed and marked on road Quietway (0.3 miles) from Hemnall Street via Theydon Grove to Stonards Hill. The next section is a footway conversion of PROW 189_18 to allow shared foot/ cycle use between Stonards Hill and Vicarage Road/ Laburnum Road in Coopersale. Necessary improvements include: improvement of the entry point into the recreation ground from Stonards Hill to allow easier and safer cycle access, via a widened and ramped entry point; improved signage and surface, improve the path from the railway bridge to Vicarage Rd/ Laburnam Rd in Coopersale. There are significant width issues when entering into Vicarage Rd/Laburnam Road, a study will need to be conducted in order to assess whether a route will be feasible.	EFDC Cycling Action Plan 2018
EPP17	Transport - Active Transport	Shared foot/cycle way from North Epping to Lower Swaines	Essential	EFDC / ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to	£100,000 - £500,000	Unknown		Unknown			Conversion of existing footpath PROW 189_2 to shared foot/cycle way, from Coronation Hill through the recreation ground to a potential development site east of B182.	EFDC Cycling Action Plan 2018

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
					highways; S106) / Grant funding								
<b>EPP18</b>	Transport - Active Transport	Improvements to footway and new unsegregated shared use footway/cycleway from Ivy Chimneys to Theydon Bois	Essential	EFDC / ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / Grant funding	> £1,000,000	Unknown		Unknown			Resurfacing of existing footway alongside eastbound carriageway of Bridge Hill Road between Centre Drive and the footpath opposite Ivy Chimneys School. Implementation of an unsegregated shared use footway/cycleway by conversion of existing footpaths (PROW 189_32, PROW 208_1). Then N-S along conversion of PROW 208_3 onto Forest Drive, coming back onto Forest Drive, where there is potential for an on road route into Theydon Bois.	EFDC Cycling Action Plan 2018
<b>EPP19</b>	Transport - Active Transport	Shared and segregated pedestrian and cycle space along the length of High Street, Epping	Essential	EFDC / ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / Grant funding - DfT Active Travel Fund	£60,125	2016-2021					Town centre public realm feasibility study to be undertaken. Study will aim to rationalise car parking and provide an improved public realm for all users, including infrastructure to potentially provide segregated and shared pedestrian and cycle space along the length of the High Street, between its junctions with Grove Lane and St Johns Road. New on-road advisory cycle lanes continue at either end of High Street to connect with Hemnall Street (S) and potential cycle schemes. 20 mph speed limit along High Street and one way vehicle system to allow for pavement widening. Planters and community artwork.	EFDC COVID-19 Active Travel Bid
<b>EPP20</b>	Education	71 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£1,084,018	2016-2033	9 places	20 places	26 places	16 places	Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with ECC
<b>EPP21</b>	Education	New (2.1ha site) primary school, including early years provision (which could be accommodated through the relocation of Ivy Chimneys Primary School)	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£8,633,360	2024-2025					Costs provided by ECC and include some early years provision (refer to EPP20). Phasing estimated based on expected delivery of housing and may be further refined. Land will also be required; overall costs (including land) to be shared	Consultation with ECC

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
												equitably and proportionally across relevant sites.	
EPP22	Education	2FE expansion of secondary schools in the Epping / Waltham Abbey Forecast Planning Group	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£9,985,500	2024-2025					Costs provided by ECC - either or both King Harold (Waltham Abbey) or St Johns (Epping) schools might be extended, and cost is overall. Phasing estimated based on expected delivery of housing and may be further refined. Subject to discussion with the school; no decisions have taken place.	Consultation with ECC
EPP23	Health	580 sqm additional GP floorspace across the Epping, Ongar & Abridge Neighbourhood Area - including appropriate provision within Epping and exploring the potential for a new health hub as part of South Epping Masterplan Area to include an integrated GP surgery, pharmacy and any other necessary health services.	Essential	NHS England / Developers	NHS England / Developer Contributions (S106)	£1,967,360	To be considered further by CCG	To be considered further by CCG				Floorspace required over entire Neighbourhood Area; may also be delivered in Ongar (refer to ONG8), North Weald Bassett (refer to NWB9) or Abridge. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Consultation with CCG (revised by Arup to reflect Main Modifications)
EPP24	Health	Approx. 1.05 FTE dentists	Essential	NHS England / Operators / Developers	NHS England / Operator Contributions (S106)	N/A	2016-2033	0.19 FTE Dentists	0.43 FTE Dentists	0.31 FTE Dentists	0.12 FTE Dentists	Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output
EPP25	Open Space and Green Infrastructure	Additional provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 1.78 ha).	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£261,117	2021-2033					Epping currently has sufficient amenity greenspace but will require additional greenspace later in the plan period. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)



Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
EPP26	Open Space and Green Infrastructure	Additional provision of public parks and gardens, which could take the form of a public park, in line with Fields in Trust Standards and agreement with EFDC (likely to be around 11.68 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£3,206,874	2016-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
EPP27	Open Space and Green Infrastructure	Enhanced signage, access and seating at Lower Swaines in Epping	Required	EFDC	Grant Funding	Dependent upon exact size and nature of scheme	Unknown	Unknown					Open Space Strategy
EPP28	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 3.34 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£776,041	2016-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
EPP29	Open Space and Green Infrastructure	Re-provision of LEAP at Lower Swaines in Epping	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£24,000	2016-2033						Open Space Strategy
EPP30	Open Space and Green Infrastructure	Contribution to access management and monitoring of visitors to the Epping Forest Special Area of Conservation (SAC)	Essential	Epping Forest Conservators / City of London Corporation / EFDC / Developers	Developer Contributions (S106)	Variable	2016-2033	As development is consented				Financial contributions should be made in accordance with Visitor Survey Information which demonstrates this is needed. Per dwelling contribution still to be determined.	Consultation with EFDC
EPP31	Open Space and Green Infrastructure	Suitable Alternative Natural Greenspace	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Unknown	TBC	TBC				See DW20.	Draft Green Infrastructure Strategy 2020
EPP32	Community Facilities	Approx. 295 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£716,555	2016-2033	44 sqm	76 sqm	112 sqm	63 sqm	Modelled additional community facility space (combined library, youth services and community hall requirement) - newly arising demand only. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
<b>EPP33</b>	Sports and Leisure	New non-turf cricket pitch at Epping Foresters Cricket Club	Required	EFDC / Developers / Epping Foresters CC / ECB / Essex CCB / Corporation of London	Developer Contributions (S106) / Grant Funding / ECB Capital Grant Funding / Club Funding	Unknown	2021-2026						Playing Pitch Strategy
<b>EPP34</b>	Sports and Leisure	Increase access to a WR22 3G artificial grass pitch, either on the existing site of Epping Upper Clapton RFC or within an appropriate travel time	Required	EFDC / Developers / Epping Upper Clapton RFC / RFU	Developer Contributions (S106) / Grant Funding / RFU / Club Funding	£1,320,000	2021-2026						Playing Pitch Strategy



## 4.12 Infrastructure Delivery Schedule: Fyfield

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
FYF1	Utilities	Potential minor upgrades to wastewater treatment infrastructure	Critical	Thames Water	Thames Water / Developer Funded	Unknown	Unknown	Unknown				Anticipated that developers would meet the cost of local upgrades in accordance with the charging schedule proposed by Defra.	Thames Water settlement assessment (2016)
FYF2	Education	5 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£76,339	2016-2031	2 places	3 places			Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council
FYF3	Education	0.5FE expansion of one primary school within Ongar Forecast Planning Group, and/or temporary accommodation replacement	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£2,072,160	2025-2026					Costs provided by ECC (across all settlements in the Forecast Planning Group). Expansion in Ongar, High Ongar, Fyfield, Matching Green or Moreton. Phasing estimated based on expected delivery of housing and may be further refined.	Consultation with Essex County Council
FYF4	Open Space and Green Infrastructure	Additional provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.10 ha).	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£14,670	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
FYF5	Open Space and Green Infrastructure	Additional provision of public parks and gardens, which could take the form of a public park, in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.13 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£35,693	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
FYF6	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.04 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£9,294	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy

## 4.13 Infrastructure Delivery Schedule: High Ongar

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline source
HON1	Utilities	Potential minor upgrades to wastewater treatment infrastructure	Critical	Thames Water	Thames Water / Developer Funded	Unknown	Unknown	Unknown				Anticipated that developers would meet the cost of local upgrades in accordance with the charging schedule proposed by Defra.	Thames Water settlement assessment (2016)
HON2	Education	8 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£122,143	2016-2026	3 places	5 places			Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council
HON3	Education	0.5FE expansion of one primary school within Ongar Forecast Planning Group, and/or temporary accommodation replacement	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£2,072,160	2025-2026					Costs provided by ECC (across all settlements in the Forecast Planning Group). Expansion in Ongar, High Ongar, Fyfield, Matching Green or Moreton. Phasing estimated based on expected delivery of housing and may be further refined.	Consultation with Essex County Council
HON4	Open Space and Green Infrastructure	Additional provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.15 ha).	Required	EFDC/Developers	Developer Contributions (S106) / Grant Funding	£22,004	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
HON5	Open Space and Green Infrastructure	Additional provision of public parks and gardens, which could take the form of a public park, in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.20 ha)	Required	EFDC/Developers	Developer Contributions (S106) / Grant Funding	£54,912	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
HON6	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.06 ha)	Required	EFDC/Developers	Developer Contributions (S106) / Grant Funding	£13,941	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy

## 4.14 Infrastructure Delivery Schedule: Loughton

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
LOU1	Utilities	Likely upgrades to water network infrastructure	Critical	Thames Water	Thames Water / Developer Funded	Unknown	Unknown	Unknown				Anticipated that developers would meet the cost of local upgrades in accordance with the charging schedule proposed by Defra.	Thames Water settlement assessment (2016)
LOU2	Transport - Highways	Upgrade of A121 Church Hill - A1168 Rectory Lane junction	Essential	ECC / Developers	Developer Contributions (S278) / ECC	£2,000,000-£3,000,000	2021-2026					This option was identified by Essex County Council/ Jacobs as part of the transport modelling process. Scheme to include local widening and PUFFIN crossings to increase approach lane and circulatory capacity.	Consultation with Jacobs, Technical Note 5
LOU3	Transport - Highways	Upgrade of A1168 Chigwell Lane - Langston Road - Oakwood Hill junction	Essential	ECC / Developers	Developer Contributions (S278) / ECC	£1,000,000	2021-2026					This option was identified by Essex County Council/ Jacobs as part of the transport modelling process. Scheme to include introduction of MOVA and local lane widening.	Consultation with Jacobs, Technical Note 5
LOU4	Transport - Highways	A113 Ongar Road - B172 Abridge Road	Essential	ECC / Developers	Developer Contributions (S278) / ECC	£500,000	2020-2025					This option was identified by Essex County Council/ Jacobs as part of the transport modelling process.	Consultation with Essex County Council
LOU5	Transport - Active Transport	TfL style Quietway connecting to advisory cycle lanes from Loughton tube station to Loughton High Road Parade and Traps Hill	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£50,000	Unknown	Unknown				New signed on-road advisory cycle lanes from Loughton tube station access, along Roding Road and Alderton Hill. Route continues as signed on-road Quietway along Brook Road and Brooklyn Avenue to Loughton High Road. Scheme connects Loughton tube station, shops and services in Loughton High Road.	EFDC Cycling Action Plan 2018
LOU6	Transport - Active Transport	TfL style Quietway providing access from Loughton tube station to Nursery Road and Epping Forest	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£50,000	Unknown	Unknown				New on-road signed Quietway from the existing footpath (PROW 304_25) providing access to Loughton tube station, along Algiers Road, Lower Park Road, Upper Park to the existing Nursery Road cycle route and other potential schemes.	EFDC Cycling Action Plan 2018
LOU7	Transport - Active Transport	Sign existing off-road cycle tracks from Nursery Road into Epping Forest	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown	Unknown				Utilises existing Epping Forest/ City of London paths through The Warren and The Stubbles (opposite Upper Park and Warren Hill).	EFDC Cycling Action Plan 2018

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
LOU8	Transport - Active Transport	Improve route navigation/ legibility by improving signage and surfacing along through Epping Forest on Nursery Road/Warren Hill to Manor Road and Roebuck Green	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown				EFDC Cycling Action Plan 2018
LOU9	Transport - Active Transport	New signed on-road Quietway on Piercing Hill/Coppice Row/The Green Crossroads	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£100,000 - £500,000	Unknown		Unknown			New signed on-road Quietway extending SW from crossroads along The Green and a section of off road cycle track along Theydon Green, then a Quietway along The Green.	EFDC Cycling Action Plan 2018
LOU10	Transport - Active Transport	TfL style signed on-road Quietway along Willingale Rd, Grosvenor Drive Chester Road, as far as Pyrles Lane junction	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown			Will provide a link Theydon Bois tube station with North Loughton, including Davenant Foundation School. Scheme also links to other potential schemes. Traffic management measures along the route will be required to reduce traffic speeds and adhere to Sustrans principles.	EFDC Cycling Action Plan 2018
LOU11	Transport - Active Transport	New signage and road markings from the south along Pyrles Lane, Lawton Road and Rectory Lane	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£100,000 - £500,000	Unknown		Unknown			Beneficial until route is able to connects with existing off-road shared use footway/ cycleway alongside northbound carriageway.	EFDC Cycling Action Plan 2018
LOU12	Transport - Active Transport	Provide a new dedicated space for cyclists on approach to the junction at cross road at Pyrles Lane, Hillyfields and Chester Road	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£100,000 - £500,000	Unknown		Unknown				EFDC Cycling Action Plan 2018

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
LOU13	Transport - Active Transport	Provide a new off-road N-S cycle route between The Warren and Wake Arms Roundabout	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	£100,000 - £500,000	Unknown		Unknown			Provide a new off-road N-S cycle route between The Warren and Wake Arms Roundabout. Utilising the existing off-road cycle route outside The Warren and a new signed shared use cycle track/Quietway N-S along Fairmead Road towards High Beech and Claypit Hill. The on road Quietway route will then continue along Pauls Nursery Road (High Beech) and Wake Road towards the Wake Arms roundabout. Potential to create a new section of off-road segregated cycle way or shared use footway/cycleway, adjacent to the westbound carriageway of the A121 (feasibility study required) at the junction of Wake Road and the A121 back towards the Wake Arms Roundabout.	EFDC Cycling Action Plan 2018
LOU14	Transport - Active Transport	Provide new signed on road advisory cycle lane N-S along Loughton Way, Valley Hill and Oakwood Hill, between Chigwell Lane and Palmerston Road	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	< £100,000	Unknown		Unknown			Potential to remove centre hatching and reallocate road space to cyclists.	EFDC Cycling Action Plan 2018
LOU15	Transport - Active Transport	New signed Quietway at Roding cycle hub route-between Loughton and Chigwell Greenway and Quietway	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	£750,000	Unknown		Unknown			Section 1: New signed Quietway along Grange Farm Lane from High Road, Chigwell, linking to new off road cycle track, following alignment of existing footpath crossing River Roding via existing footbridge. Route continues to Highwood Lane Section 2: Provision of new on-road advisory cycle lanes in both directions along Oakwood Hill, between Chigwell Lane and Roding Road. Section 3: New on road advisory cycle lanes along Traps Hill and Alderton Hall Lane, linking to Sections 1 and 2.	EFDC Cycling Action Plan 2018

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source	
LOU16	Transport - Active Transport	New signed Quietway route linking Theydon Bois Underground station and town centre to Debden and Loughton Underground stations	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	£50,000	Unknown					Unknown	New signed Quietway route linking Theydon Bois Underground station and town centre to Debden and Loughton Underground stations. Route follows Forest Drive, Poplar Row, Theydon Park Road Willingale Road, between Dukes Avenue and The Broadway. A new section of route, connecting Theydon Park Road and Willingale Road will be required to be constructed across the potential development site. Provides access to Debden Park High School and St John Fisher Catholic Primary School.	EFDC Cycling Action Plan 2018
LOU17	Transport - Active Transport	Connect existing network to Debden Underground Station	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	£50,000	Unknown					Unknown	Route continues along Chigwell Lane from Oakwood Hill to Debden tube station.	EFDC Cycling Action Plan 2018
LOU18	Transport - Active Transport	Shared use foot/cycle way at Hillyfields. Golding's Hill and Stony Path	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	£100,000 - £500,000	Unknown					Unknown	Shared use foot/cycle way already implemented on Rectory Lane between Westall Road and Newmans Lane (adjacent to westbound carriageway), and from north of Conyers Way to Church Hill on opposite carriageway (adjacent to eastbound carriageway). Need crossing improvements on Rectory Lane and a link between these two sections, to provide a continuous cycle route. Crossing improvements also required to enable cyclists to reach the western side of Church Hill. Segregated 150 metre long route along the existing footway, will need widening. On the western side of Church Hill and Golding's Lane, improvement for signage to the PROW 304_7 (Stony Path). Provides access to Epping Forest College	EFDC Cycling Action Plan 2018



Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
LOU19	Transport - Active Transport	Off road route alternative at Epping Forest, West Loughton Hillyfields and Debden.	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	£1,000,000 +	Unknown	Unknown				Off road route alternative to the on road A104 Epping New Road, from Debden Green to Fairmead Bottom. The off road route follows existing routes through Epping Forest. It should be signed and will go through Debden Slade, Clay Ride, Great Monk Wood, Copley Plain, and Ditches Ride.	EFDC Cycling Action Plan 2018
LOU20	Transport - Active Transport	On road advisory lanes on A104 from The Warren to Wake Arm Roundabout	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106)	£1,000,000 +	Unknown	Unknown				Clear vegetation in order to make the current off road cycleway/footway near Epping Forest parking provision clearer and wider. On road advisory cycle lanes. Updating the current on road cycle lanes with Diagram 1057 markings and look to achieve the ideal width of 2 metres. There is the potential to create an off-road section of shared-use footway/cycleway in the area between the A104 Epping New Road, the Wake Arms Roundabout and the A121 Wake Road.	EFDC Cycling Action Plan 2018
LOU21	Transport - Active Transport	Loughton High Street cycling and walking interventions including directional boards, pavement widening, and cycle parking	Essential	ECC/ EFDC	Central Government	£97,825	2016-2021					Active travel interventions on Loughton High Road in response to COVID-19. Interventions identified include directional boards for pedestrian priority zones and 20mph speed limits; pavement widening; planters; temporary crossing; and cycle parking.	EFDC COVID-19 Active Travel Bid
LOU22	Transport - Active Transport	Debden Broadway cycling and walking interventions including road closure swing gates for weekend pedestrianisation; signage and cycle parking	Essential	ECC/ EFDC	Central Government	£58,370	2016-2021					Active travel interventions on Debden Broadway in response to COVID-19. Interventions identified include road closure swing gates for weekend pedestrianisation; disabled parking bay signage for weekend pedestrianisation; planting for greening central strip; planters; and cycle parking.	EFDC COVID-19 Active Travel Bid
LOU23	Education	68 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£1,038,214	2016-2031	22 places	32 places	14 places		Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with ECC

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
LOU24	Education	1FE expansion of secondary schools within Loughton Forecast Planning Group	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£6,181,500	2028-2029					Costs provided by ECC (across all settlements in the Forecast Planning Group). Expansion in Loughton and/or Chigwell. Phasing estimated based on expected delivery of housing and may be further refined.	Consultation with ECC
LOU25	Health	92 sqm additional GP floorspace across the Loughton Neighbourhood Area - including appropriate provision within Loughton	Essential	NHS England / Developers	NHS England / Developer Contributions (S106)	£312,064	To be considered further by CCG	To be considered further by CCG				Floorspace required over entire Neighbourhood Area. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Consultation with CCG (revised by Arup to reflect Main Modifications)
LOU26	Health	Approx. 1.02 FTE dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2016-2031	0.50 FTE Dentists	0.42 FTE Dentists	0.10 FTE Dentists		Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output.
LOU27	Open Space and Green Infrastructure	Additional provision of public parks and gardens in line with Fields in Trust Standards and agreement with EFDC (likely to be around 27.71 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£7,608,088	2016-2031					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
LOU28	Open Space and Green Infrastructure	Upgrading of Roding Valley Recreation Ground	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of scheme	2016-2031					Upgrades required to fulfil Ground's role as a public park for Buckhurst Hill and to meet future demand arising from Loughton.	Open Space Strategy
LOU29	Open Space and Green Infrastructure	Enhanced signage at the seven natural and semi-natural greenspace sites in Loughton (Roding Valley Meadows; Home Mead; Willingale Road Nature Area; Borders Lane, Loughton; Debden Road; Area adjacent Roding Valley Meadows; Woodland, Theydon Bois)	Required	EFDC	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of scheme	Unknown	Unknown					Open Space Strategy



Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
LOU30	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 8.31 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£1,930,808	2016-2031					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
LOU31	Open Space and Green Infrastructure	Improved play areas at Roding Valley Recreation Ground (in line with creating multifunctional parks and garden provision)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of scheme	2016-2031						Open Space Strategy
LOU32	Open Space and Green Infrastructure	Potential upgrading of Westall Road and Rectory Road children's play facilities	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of scheme	2016-2031						Open Space Strategy
LOU33	Open Space and Green Infrastructure	New cemetery	Required	EFDC / ECC / Developers / Religious bodies	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of scheme	2016-2031						Open Space Strategy
LOU34	Open Space and Green Infrastructure	Contribution to access management and monitoring of visitors to the Epping Forest Special Area of Conservation (SAC)	Essential	Epping Forest Conservators / City of London Corporation / EFDC / Developers	Developer Contributions (S106)	Variable	2016-2033	As development is consented				Financial contributions should be made in accordance with Visitor Survey Information which demonstrates this is needed. Per dwelling contribution still to be determined.	Consultation with EFDC
LOU35	Community Facilities	Approx. 296 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£718,984	2016-2031	112 sqm	145 sqm	39 sqm		Modelled additional community facility space (combined library, youth services and community hall requirement) - newly arising demand only. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Consultation with ECC
LOU36	Sports and Leisure	Refurbish existing ancillary facility at Debden Sports Club to improve the overall quality of provision	Required	EFDC / Developers / Essex County FA / Football Foundation	Developer Contributions (S106) / Grant Funding / Club Funding	Unknown	2016-2021					Pitch to be developed in line with the FA Pitch Register requirements.	Playing Pitch Strategy
LOU37	Sports and Leisure	Refurbish existing ancillary facility at Loughton Football Club	Required	EFDC / Developers / Loughton Town Council / Loughton Football Club / Essex County	Developer Contributions (S106) / Grant Funding / Club Funding	Unknown	2021-2026					Pitch to be developed in line with the FA Pitch Register requirements.	Playing Pitch Strategy

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
				FA / Football Foundation									
LOU38	Sports and Leisure	New non-turf cricket pitch at Loughton Cricket Club	Required	EFDC / Developers / Loughton CC / Loughton Town Council / ECB / Essex CCB	Developer Contributions (S106) / Grant Funding / ECB Capital Grant Funding / Club Funding	Unknown	2016-2021						Playing Pitch Strategy
LOU39	Sports and Leisure	Refurbish existing ancillary facility at Roding Playing Fields North, to allow for continued affiliated football use	Required	EFDC / Developers / South Loughton CC / Loughton Town Council / Football Foundation	Developer Contributions (S106) / Grant Funding / Club Funding	Unknown	2021-2026						Playing Pitch Strategy
LOU40	Sports and Leisure	Explore options for relocation of South Loughton Cricket Club	Required	EFDC / Developers / South Loughton CC / Loughton Town Council / ECB / Essex CCB	Developer Contributions (S106) / Grant Funding / Club Funding	Unknown	2026-2031						Playing Pitch Strategy
LOU41	Sports and Leisure	Improve quality of two existing pitches	Required	Loughton RFC / EFDC	Developer Contributions (S106) / Grant Funding / Club Funding	Unknown	2021-2026						Playing Pitch Strategy

## 4.15 Infrastructure Delivery Schedule: Lower Nazeing

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
LNA1	Utilities	Local upgrades to wastewater network infrastructure	Critical	Thames Water	Thames Water / Developer Funded	Unknown	Unknown	Unknown				Anticipated that developers would meet the cost of local upgrades in accordance with the charging schedule proposed by Defra.	Thames Water settlement assessment (2016)
LNA2	Utilities	Diversion of gas mains	Required	Cadent Gas	UKPN /Developer Agreement	Site dependent	Site dependent					Potential diversion of gas mains which pass through employment site NAZE.E2. Alternative is to retain in position and design the site around an easement along the pipes. The potential easement / diversion will be dependant on the type of main - the options for these sites should be considered on a site-by site basis, in consultation with Cadent Gas.	Engagement with EFDC
LNA3	Education	24 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£366,429	2016-2026	3 places	21 places			Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council
LNA4	Education	Up to 0.5FE expansion of Nazeing Primary School	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£1,813,140	2024-2025					Costs provided by ECC. Phasing estimated based on expected delivery of housing and may be further refined.	Consultation with ECC
LNA5	Health	162 sqm additional GP floorspace across the Waltham Abbey Neighbourhood Area	Essential	NHS England / Developers	NHS England / Developer Contributions (S106)	£549,504	To be considered further by CCG	To be considered further by CCG				Floorspace required over entire Neighbourhood Area; may also be delivered in Waltham Abbey (refer to WAB34). Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Consultation with CCG (revised by Arup to reflect Main Modifications)

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
LNA6	Health	Approx. 0.35 FTE dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2016-2021	0.26 FTE Dentists	0.09 FTE Dentists			Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output
LNA7	Open Space and Green Infrastructure	Additional provision of public parks and gardens in line with Fields in Trust Standards and agreement with EFDC (likely to be around 3.90 ha, assuming equal share of existing capacity between Roydon and Nazeing)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£1,070,788	2016-2026					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
LNA8	Open Space and Green Infrastructure	Additional provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 2.33 ha, assuming equal share of existing capacity between Roydon and Nazeing), in the centre of Nazeing	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£341,800	2016-2026					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
LNA9	Open Space and Green Infrastructure	Additional provision for children and young people	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of scheme	2016-2026					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy
LNA10	Open Space and Green Infrastructure	Potential upgrading of Pound Close, Nazeing Common and Elizabeth Close children's play facilities	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of scheme	2016-2026						Open Space Strategy
LNA11	Community Facilities	Approx. 96 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£233,184	2016-2026	70 sqm	26 sqm			Modelled additional community facility space (combined library, youth services and community hall requirement) - newly arising demand only. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
LNA12	Sports and Leisure	Replacement changing pavilion at Bumbles Green Leisure Centre	Required	EFDC / Developers / Nazeing Parish Council / Football Foundation	Developer Contributions (S106) / Grant Funding / Club Funding	Unknown	2021-2026						Playing Pitch Strategy
LNA13	Sports and Leisure	Replacement of existing ancillary facility at Nazeing Common with a fit for purpose pavilion	Required	EFDC / Developers / Nazeing Common CC / ECB / Essex CCB	Developer Contributions (S106) / Grant Funding / Club Funding	Unknown	2021-2026						Playing Pitch Strategy

## 4.16 Infrastructure Delivery Schedule: Lower Sheering

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
LSH1	Flood Protection	Surface water drainage measures	Critical	Developer	Developer Funded	Unknown	2016-2021					A site (LSHR.R1) within this settlement has been identified as being at risk of surface water flooding. The design and layout of any development proposals should reduce the vulnerability and consequences of surface water flooding to the site and its surroundings, and development proposals should incorporate appropriate surface water drainage measures in order to achieve this.	Consultation with EFDC
LSH2	Education	4 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer Contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£137,411	2016-2026	2 places	2 places			Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council
LSH3	Open Space and Green Infrastructure	Additional provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.08 ha).	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£11,736	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
LSH4	Open Space and Green Infrastructure	Additional provision of public parks and gardens, which could take the form of a public park, in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.11 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£30,202	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
LSH5	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.03 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£6,970	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy



## 4.17 Infrastructure Delivery Schedule: North Weald Bassett

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
NWB1	Utilities	Local upgrades to wastewater network infrastructure	Critical	Thames Water	Thames Water / Developer Funded	Unknown	Unknown	Unknown				Anticipated that developers would meet the cost of local upgrades in accordance with the charging schedule proposed by Defra.	Thames Water settlement assessment (2016)
NWB2	Utilities	Diversion of gas mains	Required	Cadent Gas	UKPN /Developer Agreement	Site dependent	Site dependent					Potential diversion of gas mains which pass through proposed development sites (NWB.R3). Alternative is to retain in position and design the site around an easement along the pipes. The potential easement / diversion will be dependant on the type of main - the options for these sites should be considered on a site-by site basis, in consultation with Cadent Gas.	Engagement with EFDC
NWB3	Transport - Highways	Improvements to Talbot PH Roundabout, A414/Vicarage Lane junction	Essential	ECC / Developers	ECC / Developer Contributions (S278) / LEP RGF	£2,000,000	2020-2025					This option was identified in the North Weald Bassett Masterplan to support growth. Challenges surrounding delivery. The junction is expected to operate above capacity, and would need to be considered against any further modal shift arising from Bus transit or Park and Ride.	North Weald Bassett Masterplan (Allies and Morrison, 2014), Technical Note 4 - Forecast Modelling Results from 7x Development Scenario Tests (2014), Consultation with Essex County Council
NWB4	Transport - Highways	A414/ Rayley Junction improvement	Essential	ECC / Developers	ECC / Developer Contributions (S278) / LEP RGF	£200,000	2025-2030					This option was identified in the North Weald Bassett Masterplan to support growth.	North Weald Bassett Masterplan (Allies and Morrison, 2014)
NWB5	Transport - Public Transport	Improvements to walking and cycling infrastructure, particularly to improve access to rapid transit bus stops	Essential	ECC / Developers	ECC / Developer Contributions (S278)	£3,000,000-£5,000,000	2026-2031					This option was identified in the North Weald Bassett Masterplan to support growth. The junction is expected to operate above capacity, and would need to be considered against any further modal shift.	North Weald Bassett Masterplan (Allies and Morrison, 2014), consultation with Essex County Council
NWB6	Education	102 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£1,557,321	2016-2033	5 places	38 places	46 places	13 places	Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
NWB7	Education	New (2.1ha site) primary school, including early years provision	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£8,633,360	2024-2025					Costs provided by ECC and include some early years provision (refer to NWB6). Phasing estimated based on expected delivery of housing and may be further refined. Land will also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Consultation with ECC
NWB8	Health	Approx. 1.46 FTE dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2016-2033	0.10 FTE Dentists	0.51 FTE Dentists	0.60 FTE Dentists	0.25 FTE Dentists	Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output
NWB9	Health	580 sqm additional GP floorspace across the Epping, Ongar & Abridge Neighbourhood Area - including appropriate provision within North Weald Bassett and exploring the potential for health facilities as part of North Weald Masterplan Area.	Essential	NHS England / Developers	NHS England / Developer Contributions (S106)	£1,967,360	To be considered further by CCG	To be considered further by CCG				Floorspace required over entire Neighbourhood Area; may also be delivered in Epping (refer to EPP23), Ongar (refer to ONG8) or Abridge. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Consultation with CCG (revised by Arup to reflect Main Modifications)
NWB10	Open Space and Green Infrastructure	Additional provision of public parks and gardens in line with Fields in Trust Standards and agreement with EFDC (likely to be around 6.14 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£1,685,805	2016-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
NWB11	Open Space and Green Infrastructure	Additional provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 3.08 ha).	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£451,821	2016-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
NWB12	Open Space and Green Infrastructure	Enhanced entrance signage at the Bassett Road N, Bassett Road E, and Bassett Road sites in North Weald Bassett	Required	EFDC	Grant Funding	Dependent upon exact size and nature of scheme	Unknown	Unknown					Open Space Strategy
NWB13	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 1.84 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£427,520	2016-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
NWB14	Open Space and Green Infrastructure	Potential upgrading of the LAP at School Green Lane in North Weald Bassett	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of scheme	2016-2033						Open Space Strategy
NWB15	Open Space and Green Infrastructure	Contribution to access management and monitoring of visitors to the Epping Forest Special Area of Conservation (SAC)  [SHOULD BE SANG]	Essential	Epping Forest Conservators / City of London Corporation / EFDC / Developers	Developer Contributions (S106)	Variable	2016-2033	As development is consented				Financial contributions should be made in accordance with Visitor Survey Information which demonstrates this is needed. Per dwelling contribution still to be determined.	Consultation with EFDC
NWB16	Open Space and Green Infrastructure	Site-specific green infrastructure interventions	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Unknown	2016-2033					Site specific requirements in accordance with EFDC Local Plan Policy SP 7 The Natural Environment, Landscape Character and Green and Blue Infrastructure; Chapter 5 Place Policies - Vision and Policies by Settlement; Site Specific Requirements for site allocations in Part 2 of the Local Plan; and Green Infrastructure Strategy. Policies and site allocation set out requirements for the developer on a site by site basis, including green infrastructure interventions, the protection of ecological assets and high quality landscape design. Site infrastructure details will be confirmed at master planning stage. Likely to include landscape connections to the Lea and Stort Valleys, complimentary networks of green open spaces tying together new and existing communities, and activation and interpretation projects to engage a wider range of people with the countryside.	Draft Green Infrastructure Strategy 2020; Consultation with EFDC
NWB17	Open Space and Green Infrastructure	Suitable Alternative Natural Greenspace	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Unknown	TBC	TBC				See DW20.	Draft Green Infrastructure Strategy 2020

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
NWB18	Community Facilities	Approx. 402 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£976,458	2016-2021	30 sqm	140 sqm	167 sqm	65 sqm	Modelled additional community facility space (combined library, youth services and community hall requirement) - newly arising demand only. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output

## 4.18 Infrastructure Delivery Schedule: Ongar

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
ONG1	Utilities	Local upgrades to wastewater network infrastructure and likely significant upgrades to water treatment infrastructure	Critical	Thames Water	Thames Water / Developer Funded	Unknown	Unknown	Unknown				Anticipated that developers would meet the cost of local upgrades as per the charging schedule, with strategic infrastructure costs borne by Thames Water.	Thames Water settlement assessment (2016)
ONG2	Utilities	Diversion of gas mains	Required	Cadent Gas	UKPN / Developer Agreement	Site dependent	Site dependent					Potential diversion of gas mains which pass through proposed development sites (ONG.R7). Alternative is to retain in position and design the site around an easement along the pipes. The potential easement / diversion will be dependant on the type of main - the options for these sites should be considered on a site-by site basis, in consultation with Cadent Gas.	Engagement with EFDC
ONG3	Transport - Highways	Upgrades to the A113 Coopers Hill/ Brentwood Road, Marden Ash/Ongar	Essential	ECC / Developers	Developer Contributions (S278)	£1,000,000	2025-30					This option was identified by Essex County Council/ Jacobs as part of the transport modelling process to improve A113 capacity	Consultation with Essex County Council and Jacobs
ONG4	Transport - Highways	Upgrade of Four Wantz Roundabout	Essential	ECC / Developers	Developer Contributions (S278)	£1,000,000	2026-2031					Originally part of the Harlow - Chelmsford package of works no longer being taken forward by ECC.	Consultation with Essex County Council and Jacobs
ONG5	Education	61 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£931,339	2016-2031	8 places	46 places	7 places		Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council
ONG6	Education	0.5FE expansion of one primary school within Ongar Forecast Planning Group, and/or temporary accommodation replacement	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£2,072,160	2025-2026					Costs provided by ECC (across all settlements in the Forecast Planning Group). Expansion in Ongar, High Ongar, Fyfield, Matching Green or Moreton. Phasing estimated based on expected delivery of housing and may be further refined.	Consultation with Essex County Council

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
ONG7	Education	Up to 2FE expansion of secondary school places	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£7,132,500	2023-2024					Costs provided by ECC (across all settlements in the Forecast Planning Group). Phasing estimated based on expected delivery of housing and may be further refined. May be met at Ongar Academy or elsewhere in the Forecast Planning Group.	Consultation with ECC
ONG8	Health	580 sqm additional GP floorspace across the Epping, Ongar & Abridge Neighbourhood Area	Essential	NHS England / Developers	NHS England / Developer Contributions (S106)	£1,967,360	To be considered further by CCG	To be considered further by CCG				Floorspace required over entire Neighbourhood Area; may also be delivered in Epping (refer to EPP23), North Weald Bassett (refer to NWB9) or Abridge. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Consultation with CCG (revised by Arup to reflect Main Modifications)
ONG9	Health	Approx. 0.91 FTE Dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2016-2026	0.32 FTE Dentists	0.59 FTE Dentists			Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output.
ONG10	Open Space and Green Infrastructure	Additional provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 1.99 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£291,923	2021-2026					Ongar currently has sufficient amenity greenspace but will require additional greenspace later in the plan period. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
ONG11	Open Space and Green Infrastructure	Additional provision of public parks and gardens, which could take the form of a public park, in line with Fields in Trust Standards and agreement with EFDC (likely to be around 6.66 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£1,828,577	2016-2026					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
ONG12	Open Space and Green Infrastructure	Additional provision of natural and semi-natural greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 4.41 ha).	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£231,094	2016-2026					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
ONG13	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 2.08 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£483,283	2016-2026					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
ONG14	Open Space and Green Infrastructure	Upgrading of LEAP at Greensted Road in Ongar	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£24,000	2016-2026						Open Space Strategy
ONG15	Community Facilities	Approx. 251 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£609,679	2016-2026	126 sqm	125 sqm			Modelled additional community facility space (combined library, youth services and community hall requirement) - newly arising demand only. Includes demand from High Ongar and Fyfield. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output



## 4.19 Infrastructure Delivery Schedule: Roydon

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
ROY1	Education	10 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£152,679	2016-2026	3 places	7 places			Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council
ROY2	Health	Approx. 0.14 FTE dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2016-2021	0.14 FTE				Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output
ROY3	Open Space and Green Infrastructure	Additional provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 2.08 ha, assuming equal share of existing capacity between Roydon and Nazeing)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£305,126	2016-2026					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
ROY4	Open Space and Green Infrastructure	Additional provision of public parks and gardens in line with Fields in Trust Standards and agreement with EFDC (likely to be around 3.58 ha, assuming equal share of existing capacity between Roydon and Nazeing)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£982,929	2016-2026					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
ROY5	Open Space and Green Infrastructure	Additional provision for children and young people	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of scheme	2016-2026					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy
ROY6	Open Space and Green Infrastructure	Potential upgrading of Roydon Playing Fields Playground	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of scheme	2016-2026						Open Space Strategy

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
ROY7	Community Facilities	Approx. 40 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£97,160	2016-2021	40 sqm				Modelled additional community facility space (combined library, youth services and community hall requirement) - newly arising demand only. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output

## 4.20 Infrastructure Delivery Schedule: Sheering

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
<b>SHE1</b>	Education	10 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£152,679	2016-2026	2 places	8 places			Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council
<b>SHE2</b>	Health	Approx. 0.15 FTE dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2016-2021	0.15 FTE Dentists				Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output
<b>SHE3</b>	Open Space and Green Infrastructure	Additional provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.18 ha).	Required	EFDC/Developers	Developer Contributions (S106) / Grant Funding	£26,405	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
<b>SHE4</b>	Open Space and Green Infrastructure	Additional provision of public parks and gardens, which could take the form of a public park, in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.23 ha)	Required	EFDC/Developers	Developer Contributions (S106) / Grant Funding	£63,149	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
<b>SHE5</b>	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.07 ha)	Required	EFDC/Developers	Developer Contributions (S106) / Grant Funding	£16,264	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
<b>SHE6</b>	Community Facilities	Approx. 41 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£99,589	2016-2026	28 sqm	13 sqm			Modelled additional community facility space (combined library, youth services and community hall requirement) - newly arising demand only. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output

## 4.21 Infrastructure Delivery Schedule: Stapleford Abbotts

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
STA1	Education	9 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£137,411	2016-2026	4 places	5 places			Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council
STA2	Education	0.5FE expansion of one primary school within Chigwell / Lambourne Forecast Planning Group, and/or temporary accommodation replacement	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£2,072,160	2030-2031					Costs provided by ECC (across all settlements in the Forecast Planning Group). Expansion in Chigwell, Stapleford Abbotts or Lambourne. Phasing estimated based on expected delivery of housing and may be further refined.	Consultation with ECC
STA3	Health	Approx. 0.14 FTE dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2016-2021	0.07 FTE Dentists	0.07 FTE Dentists			Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output
STA4	Open Space and Green Infrastructure	Additional provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.16 ha).	Required	EFDC/Developers	Developer Contributions (S106) / Grant Funding	£23,471	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
STA5	Open Space and Green Infrastructure	Additional provision of public parks and gardens, which could take the form of a public park, in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.22 ha)	Required	EFDC/Developers	Developer Contributions (S106) / Grant Funding	£60,403	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
STA6	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.07 ha)	Required	EFDC/Developers	Developer Contributions (S106) / Grant Funding	£16,264	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
STA7	Community Facilities	Approx. 38 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£92,302	2016-2026	18 sqm	20 sqm			Modelled additional community facility space (combined library, youth services and community hall requirement) - newly arising demand only. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output

## 4.22 Infrastructure Delivery Schedule: Theydon Bois

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
THB1	Utilities	Local upgrades to wastewater network infrastructure and potential minor upgrades to water treatment infrastructure	Critical	Thames Water	Thames Water / Developer Funded	Unknown	Unknown	Unknown				Anticipated that developers would meet the cost of local upgrades in accordance with the charging schedule proposed by Defra.	Thames Water settlement assessment (2016)
THB2	Flood Protection	Surface water drainage measures	Critical	Developer	Developer Funded	Unknown	2016-2026					Two sites (THYB.R1 and THYB.R2) within this settlement have been identified as being at risk of surface water flooding. The design and layout of any development proposals should reduce the vulnerability and consequences of surface water flooding to the site and its surroundings, and development proposals should incorporate appropriate surface water drainage measures in order to achieve this.	Consultation with EFDC
THB3	Transport - Highways	B172 Coppice Road / Piercing Hill Signalised Junction	Essential	ECC / Developers	Developer Contributions (S278) / ECC	£1,000,000	2026-2031					This option was identified by Essex County Council/ Jacobs as part of the transport modelling process. This schemes includes local widening, and roundabout options testing.	Consultation with Essex County Council
THB4	Education	8 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£122,143	2016-2026	2 places	6 places			Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council
THB5	Health	0.11 FTE dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2016-2026	0.06 FTE Dentists	0.05 FTE Dentists			Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output



Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
<b>THB6</b>	Open Space and Green Infrastructure	Additional provision of public parks and gardens in line with Fields in Trust Standards and agreement with EFDC (likely to be around 3.58 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£982,929	2016-2026					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
<b>THB7</b>	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 1.04 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£241,641	2016-2026					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
<b>THB8</b>	Open Space and Green Infrastructure	Contribution to access management and monitoring of visitors to the Epping Forest Special Area of Conservation (SAC)	Essential	Epping Forest Conservators / City of London Corporation / EFDC / Developers	Developer Contributions (S106)	Variable	2016-2033	As development is consented				Financial contributions should be made in accordance with Visitor Survey Information which demonstrates this is needed. Per dwelling contribution still to be determined.	Consultation with EFDC
<b>THB9</b>	Community Facilities	Approx. 32 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£77,728	2016-2021	32 sqm				Modelled additional community facility space (combined library, youth services and community hall requirement) - newly arising demand only.	Modelled output

## 4.23 Infrastructure Delivery Schedule: Thornwood

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
THO1	Utilities	Local upgrades to wastewater network infrastructure	Critical	Thames Water	Thames Water / Developer Funded	Unknown	Unknown	Unknown				Anticipated that developers would meet the cost of local upgrades in accordance with the charging schedule proposed by Defra.	Thames Water settlement assessment (2016)
THO2	Education	17 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£259,554	2021-2026		17 places			Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with Essex County Council
THO3	Health	Approx. 0.23 FTE dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2021-2026		0.23 FTE Dentists			Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output
THO4	Open Space and Green Infrastructure	Additional provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.28 ha).	Required	EFDC/Developers	Developer Contributions (S106) / Grant Funding	£41,075	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
THO5	Open Space and Green Infrastructure	Additional provision of public parks and gardens, which could take the form of a public park, in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.37 ha)	Required	EFDC/Developers	Developer Contributions (S106) / Grant Funding	£101,588	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy
THO6	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 0.12 ha)	Required	EFDC/Developers	Developer Contributions (S106) / Grant Funding	£27,882	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Modelled output, based on standards in Open Space Strategy

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
TH07	Open Space and Green Infrastructure	Additional provision of allotments in agreement with EFDC (likely to be around 0.09 ha)	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£2,153	2016-2026					Newly arising need only. Where appropriate, development proposals will be required to provide allotments in accordance with the guidance contained in the Open Space Strategy.	Modelled output, based on standards in Open Space Strategy
TH08	Open Space and Green Infrastructure	Contribution to access management and monitoring of visitors to the Epping Forest Special Area of Conservation (SAC)	Essential	Epping Forest Conservators / City of London Corporation / EFDC / Developers	Developer Contributions (S106)	Variable	2016-2033	As development is consented				Financial contributions should be made in accordance with Visitor Survey Information which demonstrates this is needed. Per dwelling contribution still to be determined.	Consultation with EFDC
TH09	Community Facilities	Approx. 64 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£155,456	2016-2026	23 sqm	41 sqm			Modelled additional community facility space (combined library, youth services and community hall requirement) - newly arising demand only. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output

## 4.24 Infrastructure Delivery Schedule: Waltham Abbey

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
WAB1	Utilities	Likely upgrades to water infrastructure, and local upgrades to wastewater network infrastructure	Critical	Thames Water	Thames Water / Developer Funded	Unknown	Unknown	Unknown				Anticipated that developers would meet the cost of local upgrades as per the charging schedule, with strategic infrastructure costs borne by Thames Water.	Thames Water settlement assessment (2016)
WAB2	Utilities	Diversion of gas mains	Required	Cadent Gas	UKPN /Developer Agreement	Site dependent	Site dependent					Potential diversion of gas mains which pass through proposed development sites (WAL.E8 and WAL.E9). Alternative is to retain in position and design the site around an easement along the pipes. The potential easement / diversion will be dependant on the type of main - the options for these sites should be considered on a site-by site basis, in consultation with Cadent Gas.	Engagement with EFDC
WAB3	Flood Protection	Surface water drainage measures	Critical	Developer	Developer Funded	Unknown	2016-2026					Two sites (WAL.R2 and WAL.R4) within this settlement have been identified as being at risk of surface water flooding. The design and layout of any development proposals should reduce the vulnerability and consequences of surface water flooding to the site and its surroundings, and development proposals should incorporate appropriate surface water drainage measures in order to achieve this.	Consultation with EFDC
WAB4	Transport - Highways	Upgrades to the A112 Sewardstone Road/ Sun Street signalised junction	Essential	ECC / Developers	Developer Contributions (S278) / ECC	£1,000,000	2020-2025					This option was identified by Essex County Council/ Jacobs as part of the transport modelling process. This scheme would need feasibility testing if taken forward.	Consultation with Essex County Council and Jacobs
WAB5	Transport - Highways	Upgrades to the M25 Junction 26 Southern Roundabout	Essential	Highways England / ECC / Developers	Highways England / Developer Contributions (S278) / ECC	£2,000,000-£3,000,000	2020-2025					This option was identified by Essex County Council/ Jacobs as part of the transport modelling process. Target to deliver within highway boundary - unknown/possible Third Party Landtake. Scheme to include enhanced roundabout with local widening to increase approach lane and circulatory capacity.	Consultation with Essex County Council and Jacobs

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
WAB6	Transport - Highways	Upgrades to the B194 High Bridge Street/ Meridian Way Signalised Junction	Essential	ECC / Developers	Developer Contributions (S278) / ECC	£1,000,000-£2,000,000	2026-2031					This option was identified by Essex County Council/ Jacobs as part of the transport modelling process	Consultation with Essex County Council and Jacobs
WAB7	Transport - Highways	Junction 4 – B194 Highbridge Street / Abbeyview Roundabout, Waltham Abbey	Essential	ECC / Developers	Developer Contributions (S278) / ECC	£1,000,000	2021-2026						Consultation with Essex County Council and Jacobs
WAB8	Transport - Active Transport	National Cycle Route 1 to Waltham Abbey town Centre via Sun Street	Essential	EFDC / ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / Grant funding	£100,000 - £500,000	Unknown					Overall Priority - High. ECC Local Highway Panels, DfT and other potential funding sources outlined in EFD Cycling Action Plan. Route continues along new signed quietway along Orchard Gardens, Town Mead Road and Fountain Place. Consider either a two way working of Silver Street for cyclists, with a new northbound cycle contraflow which would enable access to town centre at Leverton Way via an upgrade of the Zebra crossing to a Tiger crossing, or a route along Sewardstone Street, connecting with Quaker Lane. There could be an opportunity for this section of Quaker Lane/Leverton Way to become an improved public realm exercise.	EFDC Cycling Action Plan 2018
WAB9	Transport - Active Transport	Improve accessibility for cyclist along Sun Street during weekday mornings and evenings.	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£25,740	2016-2021					Cycle lanes with permitted hours during weekday mornings and evenings. Planters used to demarcate the cycle lanes. Associated cycle parking at essential shops and reallocating of car parking spaces. One way pedestrian flows with multiple crossing points and signage. Signage noting times of use for cyclists and alternative route down Quaker Lane. Road markings for cyclists.	EFDC COVID-19 Active Travel Bid
WAB10	Transport - Active Transport	Provide a new advisory cycle lane along Quaker Lane from Leverton Way to Sewardstone Road	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown					May require removal of centre-line and signage. Investigation required to connect existing two way cycle track at eastern end of Quaker Lane with new provision.	EFDC Cycling Action Plan 2018

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
WAB11	Transport - Active Transport	TfL style on road quietway - Abbey Mead Industrial Park (Brooker Road) and Honey Lane, Waltham Abbey. New signed quietway route between Abbey Mead Industrial Park, passing Tesco, to Honey Lane via residential roads	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown			Quietway route follows residential roads of Brooker Road (giving access to Abbey Mead Industrial Park), Greenfield street, King George Road, Sewardstone Road (giving access to supermarket) and Denny Avenue. At its eastern extent, consideration should be given to converting the existing footpath (PROW 211_109) between Denny Avenue and Elm Close to shared cycle use if possible both at Elm Close and at Denny Avenue, otherwise for this section, cyclists must dismount and continue on foot. Quietway route then continues along Elm Close, Larsen Drive, Rochford Avenue and Roundhills to Honey Lane. Consideration must be given to providing or upgrading to cycle friendly crossings outside of Tesco at Sewardstone Road.	EFDC Cycling Action Plan 2018
WAB12	Transport - Active Transport	Off road route improvement and on road TfL style quiet way to improve residential permeability on Mason Way and Abbots Drive	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£100,000 - £500,000	Unknown		Unknown			New signed quietway network on Abbots Drive/Winters Way/Skarnings Court, linking to an existing surfaced lit route which then runs down along the southern side of the watercourse.	EFDC Cycling Action Plan 2018
WAB13	Transport - Active Transport	New E-W on-road signed quietway along length of Farthingale Lane residential area from Stoney Bridge Drive and Mason Way to improve residential permeability	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£100,000 - £500,000	Unknown		Unknown				EFDC Cycling Action Plan 2018
WAB14	Transport - Active Transport	On road advisory lane linking central and South East Waltham Abbey	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£100,000 - £500,000	Unknown		Unknown			New on-road advisory cycle lane between Roundhills and Leverton Schools. There could be an option to cut the corner of Farm Hill Road and Honey Lane through the current access for the Play Area which would require a new bridge over Cobbin's Brook and a new off-road cycle track alongside the War Memorial.	EFDC Cycling Action Plan 2018
WAB15	Transport - Active Transport	Extend existing cycle route with a new on-road signed quietway along Leaview to Powdermill Lane. Continue route with a new off-road cycle track parallel with and to the north of Abbeyview	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to	£100,000 - £500,000	Unknown		Unknown				EFDC Cycling Action Plan 2018



Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
					highways; S106) / ECC								
<b>WAB16</b>	Transport - Active Transport	Toucan crossing at Meridian Way roundabout	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£100,000 - £500,000	Unknown		Unknown			New toucan crossing across western arm of Meridian Way at the junction to improve the safety for cyclists using NCR1.	EFDC Cycling Action Plan 2018
<b>WAB17</b>	Transport - Active Transport	New off road segregated cycle track to meet minimum width requirements for pedestrians and cyclists along either side of Parklands	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£500,000 - £1,000,000	Unknown		Unknown			Replaces the existing remote footway between Parklands roundabout and Ninefields.	EFDC Cycling Action Plan 2018
<b>WAB18</b>	Transport - Active Transport	New off-road shared use route for pedestrians and cyclists between Parklands roundabout and Highbridge Street roundabout	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£100,000 - £500,000	Unknown		Unknown			Due to a cluster of collisions at this roundabout, consider provision of a toucan crossing for cyclists across Crooked Mile to enable safe continuity of paths.	EFDC Cycling Action Plan 2018
<b>WAB19</b>	Transport - Active Transport	On road advisory lanes providing key N-S link to town centre from Meridian Way/Dowding Way roundabout along Sewardstone Road to The Market Square Surgery/ Health Centre	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown			Requires removal of central hatching/ centrelines and reallocating roadspace. Route continues along Rue de St. Lawrence, and along existing two way cycle track on Quaker Lane until Sun Street. The existing width restriction provided by the guard railing at Sewardstone Road/ Rue de St. Lawrence is a barrier to cycle movement and should be removed replaced with a flush kerb and bollards. This existing cycle track would benefit from widening.	EFDC Cycling Action Plan 2018
<b>WAB20</b>	Transport - Active Transport	TfL style on road quietway along Monkswood Avenue, providing access to King Harold Academy and linking eastern areas of Waltham Abbey to town centre	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown			Alternatively, could consider implementation of cycle wheeling ramps along edge of existing staircase. Feasibility study required to determine provision.	EFDC Cycling Action Plan 2018
<b>WAB21</b>	Transport - Active Transport	New signed on-road quietway along Broomstick Hall Road, between Windsor Wood and Ninefields	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to	< £100,000	Unknown		Unknown				EFDC Cycling Action Plan 2018



Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
					highways; S106) / ECC								
<b>WAB22</b>	Transport - Active Transport	Creation of new mandatory cycle lanes in both directions along Honey Lane, from Old Shire Lane to Shernbrook Road (North)	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown				EFDC Cycling Action Plan 2018
<b>WAB23</b>	Transport - Active Transport	Quietway network providing a direct link between potential scheme WAB5, residential areas, King Harold Business and Enterprise Academy school and link into Ninefields	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown				EFDC Cycling Action Plan 2018
<b>WAB24</b>	Transport - Active Transport	Waltham Cross Station access from Waltham Abbey	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£100,000 - £500,000	Unknown		Unknown			Existing shared use footway/ cycle way along northern side of A121 (connecting Waltham Cross station and the Lea Valley White Water Centre), which finishes at Epping Forest District boundary, where cyclists are instructed to dismount. Continue shared use footway conversion along northern side of carriageway, providing a continuous link to the River Lea Country Park, the Royal Gunpowder Mills and Leaview, linking to the Waltham Abbey potential cycle network. Upgrade existing pelican crossings to toucans at A121/ Beaulieu Drive junction and upgrade existing zebra crossing to a tiger crossing west of Abbeyview Roundabout.	EFDC Cycling Action Plan 2018
<b>WAB25</b>	Transport - Active Transport	An extension on Parklands onto advisory cycle lanes on Paternoster Hill and Upshire road in order to give a connection to residential areas to the North of Waltham Abbey	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	£100,000 - £500,000	Unknown		Unknown			Park of the Cycling Action Plan flagship project.	EFDC Cycling Action Plan 2018
<b>WAB26</b>	Transport - Active Transport	An extension of WAB14 route onto Ninefields linking to the Roundabout on Upshire Road	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to	< £100,000	Unknown		Unknown			Parking regulation and traffic management would allow cycle lanes to be implemented along the road, providing an east to west route for Waltham Abbey.	EFDC Cycling Action Plan 2018

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
					highways; S106) / ECC								
<b>WAB27</b>	Transport - Active Transport	Complete the flagship route from Eastern Waltham Abbey to join with Hertfordshire's existing network and provide a cycling route to Waltham Cross station	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	TBC	Unknown		Unknown			Improvements will be required at Abbeyview Roundabout, to enable E-W cycle movements around the southern extreme of the roundabout, enabling access to/ from Highbridge Street. Alternatively, the footway could be widened and parking rationalised in this location to provide an off road footway conversion.	EFDC Cycling Action Plan 2018
<b>WAB28</b>	Transport - Active Transport	New on-road advisory cycle lane link away from the main road at Beechfield Walk, connecting proposed employment zone between M25 and Dowding Way with residential areas	Essential	ECC / Developers	Developer Contributions (S278 for physical infrastructure relating to highways; S106) / ECC	< £100,000	Unknown		Unknown			New on-road advisory cycle lane in both directions along Beechfield Walk, between Sewardstone Road and Lodge Lane. Route continues along Beechfield Walk as a new signed on-road quietway, providing access to the existing footbridge across the M25. Improvements/ upgrade may be required to the footbridge and/ or its access points to facilitate good cycle access. The width needs to be 3.5m for an unsegregated path for cycling and walking over the bridge, and the minimum height of the parapet is 1.4m.	EFDC Cycling Action Plan 2018
<b>WAB29</b>	Education	107 early years places to meet the needs of new residents	Essential	ECC / Operators / Developers	Developer contributions (S106) / DfE / Operators / ECC / (Working Parents Allowance)	£1,633,661	2016-2031	17 places	63 places	27 places		Newly arising need only. Costs depend on solution identified; costs shown based on new-build building. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled output; Consultation with ECC
<b>WAB30</b>	Education	Expansion of two primary schools within Waltham Abbey Forecast Planning Group to provide at least 1.5FE of additional capacity	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£5,439,420	2022-2023					Costs provided by ECC (across all settlements in the Forecast Planning Group). Phasing estimated based on expected delivery of housing and may be further refined.	Consultation with ECC

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
WAB31	Education	2FE expansion of secondary schools in the Epping / Waltham Abbey Forecast Planning Group	Essential	ECC / Academy Trusts / Developers	Developer contributions (S106) / DfE including Basic Needs Allowance / ECC	£9,985,500	2024-2025					Costs provided by ECC - either or both King Harold (Waltham Abbey) or St Johns (Epping) schools might be extended, and cost is overall. Phasing estimated based on expected delivery of housing and may be further refined. Subject to discussion with the school; no decisions have taken place.	Consultation with ECC
WAB32	Health	162 sqm additional GP floorspace across the Waltham Abbey Neighbourhood Area - including appropriate provision within Waltham Abbey	Essential	NHS England / Developers	NHS England / Developer Contributions (S106)	£549,504	To be considered further by CCG	To be considered further by CCG				Floorspace required over entire Neighbourhood Area; may also be delivered in Nazeing (refer to LNA5). Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Consultation with CCG (revised by Arup to reflect Main Modifications)
WAB33	Health	1.63 FTE dentists	Essential	NHS England / Operators / Developers	NHS England / Operators / Developer Contributions (S106)	N/A	2016-2031	0.37 FTE Dentists	0.88 FTE Dentists	0.38 FTE Dentists		Newly arising need only. Note, not every settlement is expected to have dental provision; instead, wider demand for these types of services would be met in certain settlements. This might involve co-location with other health provision e.g. GPs and pharmacies, or provision by private organisations. Dentists commonly operate as private businesses and so the nature and location of new provision is market driven. Given the range in types of provision, no benchmark cost is available.	Modelled output
WAB34	Open Space and Green Infrastructure	Additional provision of public parks and gardens in line with Fields in Trust Standards and agreement with EFDC (likely to be around 11.40 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£3,129,996	2016-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
WAB35	Open Space and Green Infrastructure	Additional provision of amenity greenspace in line with Fields in Trust Standards and agreement with EFDC (likely to be around 10.57 ha).	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£1,550,568	2016-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
WAB36	Open Space and Green Infrastructure	Potential upgrading of Town Mead and Honey Lane children's play facilities	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	Dependent upon exact size and nature of schemes	2016-2033						Open Space Strategy
WAB37	Open Space and Green Infrastructure	Additional provision for children and young people in line with Fields in Trust Standards and agreement with EFDC (likely to be around 5.66 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£1,315,087	2016-2033					Where appropriate, development proposals will be required to provide open space in accordance with the guidance contained in the Open Space Strategy. Nationally adopted standards will be used as a starting point for provision.	Open Space Strategy (revised by Arup to reflect Main Modifications)
WAB38	Open Space and Green Infrastructure	Additional provision of allotments in agreement with EFDC (likely to be around 3.13 ha)	Essential	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£74,879	2016-2033					Where appropriate, development proposals will be required to provide allotments in accordance with the guidance contained in the Open Space Strategy.	Open Space Strategy (revised by Arup to reflect Main Modifications)
WAB39	Open Space and Green Infrastructure	Contribution to access management and monitoring of visitors to the Epping Forest Special Area of Conservation (SAC)	Essential	Epping Forest Conservators / City of London Corporation / EFDC / Developers	Developer Contributions (S106)	Variable	2016-2033	As development is consented				Financial contributions should be made in accordance with Visitor Survey Information which demonstrates this is needed. Per dwelling contribution still to be determined.	Consultation with EFDC
WAB40	Community Facilities	455 sqm of additional community facilities space to meet the needs of new residents	Required	EFDC / Developers	Developer Contributions (S106) / Grant Funding	£1,105,195	2016-2033	107 sqm	238 sqm	98 sqm	12 sqm	Modelled additional community facility space (combined library, youth services and community hall requirement) - newly arising demand only. Land may also be required; overall costs (including land) to be shared equitably and proportionally across relevant sites.	Modelled demand
WAB41	Sports and Leisure	Refurbishment of ancillary facility at Capershotts, Waltham Abbey to meet the needs of the home club	Required	EFDC / Developers / Waltham Abbey FC / Essex County FA / Football Foundation	Developer Contributions (S106) / Grant Funding / Club Funding	Unknown	2021-2026						Playing Pitch Strategy
WAB42	Sports and Leisure	Extend the capacity of the football facilities in Waltham Abbey through the provision of additional high quality grass pitches and pending the availability of suitable space, explore the development of a second 3G artificial grass pitch	Required	EFDC / Developers / Waltham Abbey Town Council / Essex County FA / Football Foundation	Developer Contributions (S106) / Football Foundation / Grant Funding / Club Funding	£955,000 (additional artificial grass pitch element only)	2016-2021						Playing Pitch Strategy

Ref	Infrastructure Type	Intervention	Priority	Delivery Partners	Potential Funding Source	Cost	Delivery Phasing	2016-2021	2021-2026	2026-2031	2031-2033	Notes	Baseline Source
<b>WAB43</b>	Sports and Leisure	Potential provision of 3G AGP pitches	Required	EFDC Football Foundation Abbey Youth FC Sport England	Developer Contributions (S106) / Football Foundation / Grant Funding / Club Funding	£955,000	2021-2026					Playing Pitch Strategy makes reference to grass pitches which have been provided at King Harold Academy.	Playing Pitch Strategy

## 4.25 Infrastructure Delivery Schedule: Suggestions from Town and Parish Councils

Ref	Settlement	Infrastructure Type	Intervention	Baseline Source
OTH1	Epping	Transport - Highways	Junction intervention (either traffic lights or a roundabout) at the Merry Fiddlers junction at Fiddlers Hamlet	Epping Town Council Proforma response
OTH2	Epping	Transport - Highways	Improved traffic management on B181, to exclude traffic through Epping Green village and use alternative routes	Epping Upland Parish Council Proforma response
OTH3	Epping	Transport - Highways	Improved traffic management or provision of an alternative route away from Rye Hill Road.	Epping Upland Parish Council Proforma response
OTH4	Epping	Transport - Highways	Installation of real-time road signage at suitable locations, and improve directional signage elsewhere	Epping Town Council
OTH5	Epping	Transport - Highways	New signage and directions towards the M25/M11 to help ease traffic flows	Epping Town Council
OTH6	Chigwell	Transport - Highway	Traffic management schemes including rephasing of the traffic lights at Rolls Park (Buckhurst Hill), Roding Lane (Buckhurst Hill), Limes Avenue/Fencepeice Road/ Hainault Road junction and Manor Road/Chigwell Road junction.	Chigwell Parish Council Proforma response.
OTH7	North Weald Bassett	Transport - Highways	Provision of additional lorry parking spaces	North Weald Bassett Parish Council Proforma response
OTH8	Buckhurst Hill	Transport - Public Transport	'Park and ride' style shuttle services to service Underground stations	Buckhurst Hill Parish Council Proforma response
OTH9	Epping	Transport - Public Transport	Greenway connections plus improved footpaths and cycleways connecting the developments at St Margaret's and South Epping with the town cent	Epping Town Council

Ref	Settlement	Infrastructure Type	Intervention	Baseline Source
OTH10	Epping	Transport - Public Transport	Improved bus facilities at Epping Station	Epping Town Council
OTH11	Chigwell	Transport - Public Transport	Assessment of the viability of providing 'park and ride' style services to Chigwell and Grange Hill Underground stations.	Chigwell Parish Council Proforma response.
OTH12	Roydon	Transport - Public Transport	Bus service connecting Water Lane Area development to Roydon and Epping	Roydon Parish Council Proforma response
OTH13	Roydon	Transport - Public Transport	New footpath on Epping Road	Roydon Parish Council Proforma response
OTH14	Theydon Bois	Transport - Public Transport	Improvements to local bus services to connect Theydon Bois to Epping, Harlow, and to Romford Shopping Centre. Increased frequency of the current 418 bus service.	Theydon Bois Parish Council Proforma response
OTH15	Epping	Education	Children's Day nurseries for under five year olds as part of the South Epping and St John's development	Epping Town Council
OTH16	Epping	Open Space and Green Infrastructure	Recreation for young teenagers, improvement and expansion to the skateboard area and pavilion at Stonards Hill	Epping Town Council
OTH17	Ongar	Open Space and Green Infrastructure	Existing play areas expanded at Shelley, High Street and Elizabeth II recreation field	Ongar Town Council Proforma response
OTH18	Epping	Community Facilities	Provision of multipurpose venues for community groups / arts performances / sports classes to replace Epping Hall	Epping Town Council



Ref	Settlement	Infrastructure Type	Intervention	Baseline Source
<b>OTH19</b>	<b>Chigwell</b>	Community Facilities	New Community Hub at Hainault Road (Chigwell Village).	Chigwell Parish Council Proforma response.
<b>OTH20</b>	<b>Chigwell</b>	Community Facilities	New Community Hall at Chigwell Row.	Chigwell Parish Council Proforma response.
<b>OTH21</b>	<b>North Weald Bassett</b>	Community Facilities	Provision of a community hub including space for re-located and upgraded library space, GP provision, early years provision (see above) and an office for North Weald Parish Council.	Consultation with EFDC and North Weald Bassett Parish Council
<b>OTH22</b>	<b>Theydon Bois</b>	Community Facilities	Provision of an outdoor activity area for children and young people	Theydon Bois Parish Council Proforma response
<b>OTH23</b>	<b>Ongar</b>	Sports and Leisure	Sports facilities upgrade and additional facilities	Ongar Town Council Proforma response
<b>OTH24</b>	<b>Theydon Bois</b>	Sports and Leisure	Additional sports facilities/playing fields, including an outdoor bowling green	Theydon Bois Parish Council Proforma response



## Appendix A

### Infrastructure Delivery Topic Paper

# Epping Forest District Local Plan Infrastructure Delivery Topic Paper

October 2018

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# 1. Introduction

## 1.1 Overview

- 1.1 Epping Forest District Council (EFDC) have prepared a Submission Version Local Plan [EB114] which sets out the strategy for meeting the District's needs from up to 2033. It includes: the Council's vision and objectives for the District; policies to ensure that high quality development; and proposals for the delivery of infrastructure to support this development.
- 1.2 EFDC commissioned the preparation of an Infrastructure Delivery Plan (IDP) [EB1101A and EB1101B], forming part of the evidence base for the Local Plan. The purpose of the IDP is to set out the infrastructure that will be required to deliver the planned level of housing and employment growth in the District over the Plan period to 2033.
- 1.3 The IDP includes a review of existing infrastructure and any shortfalls in provision, informed by consultation with infrastructure and service providers, along with a review of relevant policy documents. From this starting point, the impact of growth over the Plan period has been considered, and new infrastructure requirements identified. Responsibilities for delivery and funding mechanisms have also been identified.
- 1.4 The IDP includes an Infrastructure Delivery Schedule, which pulls together the identified outputs and infrastructure requirements. The purpose of the Schedule is to:
  - Present indicative costs associated with delivering the infrastructure required to support growth.
  - Summarise the potential funding sources that could be used to deliver infrastructure, recognising that developer contributions will be a key part of this.
  - Prioritise the infrastructure interventions according to whether it is considered to be 'critical', 'essential' or 'desirable', and identify when in the Plan period the infrastructure will be required.
  - Identify, where possible, the scale of the funding gap where funding is not fully committed.
- 1.5 IDPs are often thought of as 'live' documents which are updated regularly as information changes. An IDP is a 'snapshot in time'; as different infrastructure providers respond to their own challenges, the information that they provide will date and alter over time, reflecting changing needs.

## **1.2 Purpose of this Topic Paper**

- 1.6 To support the Local Plan Independent Examination and building on the IDP, this topic paper on infrastructure delivery has been produced. The purpose of the paper is to provide more information and certainty on infrastructure delivery, as well as a more general update on the work undertaken since the IDP was published.
- 1.7 The topic paper includes a high level framework for apportionment and pooling arrangements to be taken forward for key infrastructure (highways, public transport, education, health, and open space, sports, green infrastructure and community facilities). The topic paper does not go as far as grouping developments into specific 'pools' given that this level of specificity is not necessarily possible or desirable at this stage. Inevitably, further discussions and negotiations will be required through the production of strategic masterplans, concept frameworks and planning applications, which will determine specific pooling and delivery arrangements as further information becomes available.
- 1.8 As well as a framework for apportionment, this paper provides more information on those external funding sources outlined in the IDP, including the work currently ongoing to progress/secure funding, and any risks of funding not being in place and contingency measures for this. The paper also covers the potential contribution of the Community Infrastructure Levy (CIL) in funding infrastructure delivery, and what might/might not be included on a Regulation 123 infrastructure list.
- 1.9 A separate piece of work is being commissioned and undertaken on infrastructure delivery to support the Harlow & Gilston Garden Town. This topic paper does not cover the Garden Town sites in detail, and instead is concerned with development in the remainder of the District. It should be therefore be read alongside the Garden Town work.

## **1.3 Structure of this Topic Paper**

- 1.10 The remainder of the topic paper is structured as follows:
  - Section 2 summarises the national planning policy and guidance on infrastructure funding and delivery;
  - Section 3 outlines the approach to apportionment and pooling that will be taken for different types of infrastructure;
  - Section 4 provides more information on external funding sources and efforts made to date to secure or progress them; and
  - Section 5 provides an overview of the role that a Community Infrastructure Levy might play in funding infrastructure.



## 2. National Policy and Guidance

### 2.1 Infrastructure Delivery

- 2.1 Both the National Planning Policy Framework (NPPF) and the Planning Practice Guidance (PPG) place a responsibility on local planning authorities to plan for the delivery of infrastructure. This includes transport, telecommunications, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (NPPF Paragraph 156)<sup>1</sup>. NPPF Paragraph 157 emphasises the importance of infrastructure in Local Plans, stressing the need to *“plan positively for the development and infrastructure required in the area to meet the objectives, principles and policies of the Framework”*.
- 2.2 The PPG<sup>2</sup> states that whilst the Local Plan is an opportunity for the authority to set out a positive vision for the area, the Plan should also be realistic about what can be achieved and when, including in relation to infrastructure. This includes identifying what infrastructure is required and how it can be funded and brought on stream at the appropriate time, as well as ensuring that the requirements of the plan as a whole will not prejudice viability. The Local Plan should make clear, for at least the first five years:
- what infrastructure is required;
  - who is going to fund and provide it; and
  - how it relates to the anticipated rate and phasing of development.
- 2.3 For the later stages of the Plan period, less detail may be provided as the position regarding the provision of infrastructure is likely to be less certain.
- 2.4 The PPG also states that where the deliverability of critical infrastructure is uncertain, the Plan should address the implications of this, e.g. possible contingency arrangements and alternative strategies.
- 2.5 More information on the national planning policy and guidance relating to infrastructure delivery can be found in the Part A Infrastructure Delivery Plan [EB1101A].

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<sup>1</sup> The draft revised NPPF, published for consultation in March 2018, also includes security and coastal change management in this list, now included in Paragraph 20. Available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/685289/Draft\\_revised\\_National\\_Planning\\_Policy\\_Framework.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/685289/Draft_revised_National_Planning_Policy_Framework.pdf) (accessed 13 March 2018)

<sup>2</sup> PPG paragraph 018, reference 12-018-201403036. Available at <https://www.gov.uk/guidance/local-plans--2> (accessed 13 March 2018)

## 2.2 Planning Obligations

2.6 Planning obligations assist in mitigating the impact of unacceptable development to make it acceptable in planning terms. Planning obligations may only constitute a reason for granting planning permission if they meet all the tests set out in Paragraph 204 of the NPPF:

- necessary to make the development acceptable in planning terms;
- directly related to the development; and
- fairly and reasonably related in scale and kind to the development.

2.7 Developers may be asked to provide contributions for infrastructure in several ways. This may be by way of **Community Infrastructure Levy** (CIL) charged, or through **planning obligations** i.e. Section 106 (S106) Agreements and Section 278 (S278) Agreements relating to highways works. Developers will also have to comply with any conditions attached to their planning permission. The PPG<sup>3</sup> states that local authorities should ensure that the combined total impact of such requests does not threaten the viability of the sites and scale of development identified in the development plan.

2.8 Where local authorities have a local CIL Charging Schedule in place, local planning authorities must work proactively with developers to ensure they are clear about the authorities' infrastructure needs and what developers will be expected to pay for through which route.

2.9 Under the CIL Regulations 2010 (2014 amendments), there are currently restrictions on the 'pooling' of separate S106 planning obligations, so that authorities cannot pool more than five obligations to pay for a single piece of infrastructure. There are no limits on pooling for S278 Agreements. A consultation document 'Supporting housing delivery through developer contributions' was published by the Government in March 2018. The document includes proposals to remove the pooling restrictions in certain circumstances – where there is an adopted CIL Charging Schedule; where authorities fall under a threshold of the tenth percentile of average new build house prices meaning CIL cannot meaningfully be charged; or where a development is planned on several strategic sites.

2.10 More information on the national policy and guidance relating to planning obligations can be found in Section 5.

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<sup>3</sup> PPG paragraph 002 Reference ID: 23b-002-20140306. Available at <https://www.gov.uk/guidance/planning-obligations> (accessed 13 March 2018).

### **3. Approach to Apportionment and Pooling**

#### **3.1 Overview**

- 3.1 As far as possible in accordance with the relevant regulations, new developments should meet their own infrastructure needs. This is often done through seeking Section 106 contributions to deliver the required infrastructure to support development. As set out in Section 2.2, the CIL Regulations have significantly restricted the use of Section 106 – particularly in relation to the ability to pool contributions.
- 3.2 Given this legislative context, this section provides a high-level framework for the apportionment of infrastructure costs between multiple developments, and how these might be collected under the pooling restrictions. The following types of infrastructure are considered:
- Highways
  - Public transport
  - Education
  - Health
  - Open space, sports, community facilities and green and blue infrastructure
- 3.3 It should be noted that this work is designed to develop a high-level framework for apportionment and pooling, in order to provide more certainty and confidence that the required infrastructure will be deliverable under the current pooling restrictions. The topic paper does not go as far as grouping developments into specific ‘pools’, setting thresholds for contributions etc. – this is because this level of specificity is not necessarily possible or desirable at this stage. Inevitably, further discussions and negotiations will be required through the production of strategic masterplans, concept frameworks and planning applications, which will determine specific pooling and delivery arrangements as further information becomes available. It is anticipated that EFDC development management team will use this framework as a starting point for collecting Section 106 monies as particular developments progress.
- 3.4 This framework does not restrict EFDC or Essex County Council from taking a different approach to apportionment and pooling in the future, so long as it is compliant with the CIL Regulations.

### 3.2 Essex Developers' Guide to Infrastructure Contributions

3.5 Essex County Council have published a Developers' Guide to Infrastructure Contributions<sup>4</sup>. The purpose of the guide is to explain the scope and range of contributions towards infrastructure which Essex County Council may seek in order to make development acceptable in planning terms.

3.6 As set out in the guide, Essex County Council's approach to collecting developer contributions is as follows:

*"Each development will be assessed on its own merits and, where Essex County Council seeks developer contributions, it will provide evidence that the infrastructure is required (in whole or in part) to serve the proposed development. Any appropriate local surplus service capacity will be taken into account before making any request. The level of contribution will always be relative to the need generated by the development in question."*

3.7 The guide sets thresholds for certain types of infrastructure where contributions are only likely to be required by larger developments. This threshold is often expressed in terms of the number of houses delivered.

3.8 Essex County Council recognises that there likely to be merit in considering consistency of approach to apportionment and pooling across Essex authorities, and is accordingly reviewing practice across the county on these matters.

### 3.3 Principles of Apportionment

3.9 In developing a framework for apportionment, the following principles have been followed:

- Infrastructure interventions should be matched to those development(s) which result in that intervention being required.
- Contributions should be equitable between developers, in proportion to their level of impact or generated demand.
- The framework should be compliant with the Section 106 pooling restrictions set out in the CIL Regulations (see Section 2.2).
- The framework should be consistent with the Developers' Guide to Infrastructure Contributions (see Section 3.2) and any other approach taken by Essex County Council. This topic paper has been developed with appropriate consultation with Essex County Council.

There may be a need to take into account instances where one developer has provided land and/or delivered infrastructure which will be used by a number of sites – for instance, there may be a requirement for equalisation agreements between developers to be in place.

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<sup>4</sup> Available at: <https://www.essex.gov.uk/Environment%20Planning/Development-in-Essex/Documents/Developers-guide.pdf>

### 3.4 Highways

3.10 The approach to apportionment in relation to highways is as follows:

- Highways mitigation schemes will be matched to those developments which result in that mitigation being required. It should be noted that strategic or route-based transport schemes may serve a large number of developments, to different degrees.
- Costs of the mitigation schemes will be apportioned based on the level of impact arising from each development (for example, the number of homes or additional trips generated).
- It will be identified which mitigation schemes are likely to be subject to pooling restrictions – i.e. where schemes would be funded through Section 106 versus where they would be delivered through a Section 278 Agreement or Section 38 Agreement (commuted sum for maintenance following adoption)<sup>5</sup>.
- (It should be noted that the Developers' Guide to Infrastructure Contributions states that Essex County Council generally expects that developers will complete or procure any necessary works to mitigate the impact of their development. Where more than one development in an area generates the need for a specific highways scheme, financial contributions may be secured through Section 106 Agreements – however, this approach will 'only be taken in exceptional circumstances'.)

3.11 If the apportionment of costs in relation to highways results in potential issues around the pooling restrictions, the following approach will be taken:

- Where possible, schemes will be broken down into separate 'projects' that can be phased and delivered independently and for which five or fewer contributions are required. For example, it may be possible to break a junction scheme up into separate 'carriage works', 'signals' and 'pedestrian/cycle realignment' projects.
- If it is not possible for the project to be broken down in this manner, then the method of contribution will be reconsidered – i.e. whether it could instead be delivered through a Section 278 Agreement (which are not subject to pooling restrictions). This should take into account the likelihood of the method of contribution being entered into jointly and the impact of a particular development not coming forward.
- A minimum threshold (in terms of the number of units delivered) for contributions may also be applied to reduce the number of sites which are liable to contribute to such infrastructure. However, this would likely reduce

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<sup>5</sup> Note, Section 38 Agreements are not normally used to deliver mitigation schemes. Any commuted sums for maintenance will be required in accordance with Essex Highways Developer's Construction Manual.

the total amount of monies available for collection and may impact on the deliverability of the infrastructure.

### 3.5 Public Transport

3.12 The approach to apportionment in relation to public transport is as follows:

- Public transport schemes will be matched to those developments which result in that scheme being required.
- The costs of each scheme will be apportioned based on the level of impact arising from each of these developments (e.g. the number of houses delivered, population generated, or ridership levels generated) – see below.
- It will be identified which upgrade schemes are likely to be subject to pooling restrictions – i.e. where upgrades would be funded through Section 106 versus where they would be delivered through a Section 278 Agreement<sup>6</sup>.

3.13 Consultation with Essex County Council has suggested that there is no simple formula-based way of estimating future ridership levels. Instead, apportionment should be considered on a case-by-case basis, taking into account:

- The scale, location and other characteristics of the proposed development.
- The existing or planned passenger transport services and their proximity, routing, frequency, quality etc., and the opportunity to improve or extend these services or provide new services.
- Any other relevant evidence, such as local car ownership levels.

3.14 If the apportionment of costs in relation to public transport results in potential issues around the pooling restrictions, the following approach will be taken:

- Where possible, schemes will be broken down into separate 'projects' that can be phased and delivered independently and for which five or fewer contributions are required. For example, it may be possible to break a new bus route up into separate legs.
- If it is not possible for the project to be broken down in this manner, then the method of contribution will be reconsidered – i.e. whether it could instead be delivered through a Section 278 Agreement (which are not subject to pooling restrictions).
- A minimum threshold (in terms of the number of units delivered) for contributions may also be applied to reduce the number of sites which are liable to contribute to public transport. However, this would likely reduce the

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<sup>6</sup> Many types of public transport enhancements would be expected to be delivered through Section 106 Agreements; however, physical works to highways relating to improved facilities for pedestrians and cyclists, or public transport facilities or infrastructure (e.g. bus gates or shelters) might be delivered through Section 278 Agreements or conditions attached to a planning permission.

total amount of monies available for collection and may impact on the deliverability of the public transport upgrades.

### **3.6 Education and Early Years**

3.15 The approach to apportionment in relation to education and early years is as follows:

- Schemes for new or extended/upgraded education and early years facilities will be matched to those developments which result in that scheme being required.
- The costs of each scheme will be apportioned based on the level of impact arising from each of these developments (i.e. the resulting 'pupil product', as set out in the Developers' Guide to Infrastructure Contributions).
- In those instances where one developer has provided land for and/or delivered an education or early years facility which will be used to meet the demand generated by other sites, this should be taken into account in the apportionment.

3.16 If the apportionment of costs in relation to education and early years results in potential issues around the pooling restrictions, the following approach will be taken:

- Where possible, schemes will be broken down into separate 'projects' that can be phased and delivered independently and for which five or fewer contributions are required. For example, it may be possible to break a new secondary school up into separate phases of development. This aligns with the preferred delivery of such facilities (rather than opening a new school in its entirety where the demand for places is not yet in place).
- A minimum threshold (in terms of the number of units delivered) for contributions may also be applied to reduce the number of sites which are liable to contribute to education. Thresholds for early years places are already applied by Essex County Council, as set out in the Developers' Guide to Infrastructure Contributions. However, this would likely reduce the total amount of monies available for collection and may impact on the deliverability of new and extended/upgraded education and early years facilities.

3.17 Essex County Council's general approach is to identify specific education projects or interventions in terms of additional new capacity. In general, where new schools are needed the first developments will be expected to fund the provision and building of those new schools. Later developments coming forward that require substantial extra capacity and trigger a need for expansion will contribute to that expansion of provision, as a separate project.



3.18 Apportionment and pooling for new secondary schools can be particularly challenging given they are likely to serve demand generated from a large number of sites. In such cases, the Council will seek confirmation from Essex County Council on the approach to be taken, which may consist of a combination of delivery of an initial new school followed by phased extension projects, with contributions from the largest or most directly related developments.

3.19 Where no specific project has been identified, developments over a certain threshold may also be required to make a more general contribution towards education and early years provision. However, these contributions will still need to comply with the pooling restrictions.

### **3.7 Health**

3.20 The approach to apportionment in relation to GP surgeries is as follows:

- Schemes for new or extended/upgraded health facilities will be matched to those developments which result in that scheme being required.
- The costs of each scheme will be apportioned based on the level of impact arising from each of these developments (e.g. the number of houses delivered or the population generated).
- In those instances where one developer has provided land for and/or delivered a facility which will be used to meet the demand generated by other sites, this should be taken into account in the apportionment.

3.21 If the apportionment of costs in relation to GP surgeries results in potential issues around the pooling restrictions, the following approach will be taken:

- Where possible, schemes will be broken down into separate 'projects' that can be phased and delivered independently and for which five or fewer contributions are required. For example, it may be possible to break a new GP surgery into different phases.
- A minimum threshold (in terms of the number of units delivered) for contributions may also be applied to reduce the number of sites which are liable to contribute to such facilities. However, this would likely reduce the total amount of monies available for collection and may impact on the deliverability of new and extended/upgraded surgeries.

3.22 Where no specific project has been identified, developments over a certain threshold may also be required to make a more general contribution towards GP surgery capacity. However, these contributions will still need to comply with the pooling restrictions.

3.23 Secondary healthcare facilities such as hospitals are provided by hospital trusts, which are in turn receive funding from the Department of Health and Social Care. Planning obligations towards secondary healthcare are not regularly sought.

However, land may be required for the relocation of the Princess Alexandra Hospital, and there may be a requirement to seek contributions from larger developments. Further work on this matter is currently being undertaken by the Princess Alexandra Hospital NHS Trust.

### **3.8 Open Space, Community Facilities and Green Infrastructure**

3.24 For some types of open space – particularly amenity greenspace, and in some cases children’s play – the provision of new space to meet newly arising demand will be expected as part of developments. For larger development, more strategic open space as well as community facilities will be expected. In these cases, there is no need for Section 106 pooling as either i) the infrastructure will be delivered directly by the developer, or ii) it is clear that the requirement for the infrastructure is arising from that development. However, there will also be instances where more than one development fuels the requirement for new facilities or open space.

3.25 Where apportionment is required, the following approach will be taken:

- Schemes for this type of infrastructure will be matched to those developments which result in that scheme being required.
- The costs of each scheme will be apportioned based on the level of impact arising from each of these developments (e.g. the number of houses delivered or the population generated).

3.26 If the apportionment of costs in relation to open space, community facilities and green infrastructure results in potential issues around the pooling restriction, the following approach will be taken:

- Schemes will be broken down into separate ‘projects’ that can be phased and delivered independently and for which five or fewer contributions are required.
- A minimum threshold (in terms of the number of units delivered) for contributions may also be applied to reduce the number of sites which are liable to contribute to such infrastructure. However, this would likely reduce the total amount of monies available for collection and may impact on the deliverability of the infrastructure.

### **3.9 Sports Facilities**

3.27 The Council will take a two-pronged approach to ensure the delivery of sports infrastructure through the Local Plan and planning process. For sites that are allocated in the Local Plan Submission Version, all relevant projects have been captured through the Infrastructure Delivery Plan.

3.28 The Infrastructure Delivery Plan (IDP) took specific projects from the Playing Pitch Strategy (PPS) and Built Facilities Strategy (BFS), both completed in 2017/2018. The studies identified future projects and investment opportunities recommended to be implemented to address the increase in demand generated by the Local Plan allocations. These projects were then reviewed and entered into the relevant

sections of the IDP Schedule<sup>7</sup>. This process included some rationalisation as to whether the projects identified could be implemented through the planning process and were suitable for inclusion in the schedule. Projects were also sourced from discussions with the County Council and Town and Parish Councils. For the Garden Town sites, the provision of sports facilities will be defined through the Garden Town IDP.

- 3.29 The approach for allocated sites will therefore be to review the projects included in the IDP against the number of allocated sites in each settlement and set out which sites will be expected to contribute to what infrastructure, culminating in a framework for the apportionment and pooling of contributions to the projects. For the Garden Town sites, this process will be undertaken through the Garden Town IDP and discussions with the site promoters through the Strategic Masterplan process.
- 3.30 For non-allocated sites, the Council is developing a standard methodology in partnership with Sport England for the calculation of developer contributions towards sports infrastructure to inform planning applications and s106 agreements.
- 3.31 Both the framework for allocated sites and the standard methodology for non-allocated sites will be published in due course as an addendum to this Topic Paper.
- 3.32 If the apportionment of costs in relation to sports facilities results in potential issues around the pooling restrictions, the following approach will be taken:
- Schemes will be broken down into separate 'projects' that can be phased and delivered independently and for which five or fewer contributions are required.
  - A minimum threshold (in terms of the number of units delivered) for contributions may also be applied to reduce the number of sites which are liable to contribute to such infrastructure. However, this would likely reduce the total amount of monies available for collection and may impact on the deliverability of the infrastructure.

### 3.10 Exclusions

- 3.33 The following types of infrastructure have not been considered as part of this framework for apportionment and pooling:
- **Dentists** – dental services are provided by independent practitioners, with the addition of NHS funding to subsidise provision for NHS patients. It would not normally be the case for Section 106 contributions to be sought for new dental capacity, unless part of a wider co-located health development.
  - **Pharmacies** – pharmacists are private practitioners, who receive NHS funding to provide free prescriptions to those qualifying, and additional NHS

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<sup>7</sup> One project was not included as it was added to the Playing Pitch Strategy following the publication of the Infrastructure Delivery Plan. This project will be included when looking at allocated sites. The project is improvements to the facilities at Loughton Rugby Club to increase their capacity.

health services. It would not normally be the case for Section 106 contributions to be sought for new pharmacy capacity, unless part of a wider co-located health development.

- **Utilities** – most types of strategic utilities upgrades subject to separate charging regimes for the connection of new development. It is anticipated that providers will meet the costs of strategic upgrades.
- **Broadband** – off-site broadband upgrades are coordinated by Superfast Essex (co-ordinated by Essex County Council), and are not normally expected to be funded through S106.
- **Flood defence** – where specific measures (including SuDS) are required to support development, these would be funded by developers (either as a Section 106 contribution or as works). More strategic flood defence investment is available from Defra, the Environment Agency and water and wastewater utility providers, rather than through a general Section 106 contribution.

## 4. External Funding Sources

### 4.1 Overview

4.1 The Infrastructure Delivery Plan (IDP) includes reference to a number of external funding sources (that is, outside of EFDC, Essex County Council, and contributions expected from developers). This section sets out the external funding sources outlined in IDP<sup>8</sup>, and outlines:

- an overview of the funding source;
- its application to planned growth in Epping Forest District;
- actions which have been taken or will be taken to secure or progress the funding; and
- any risks associated with the funding and what contingency measures are in place.

4.2 The Local Plan Submission Version and its supporting IDP gives the certainty required around infrastructure needs to continue working in partnership with relevant funding partners and other organisations, agencies, and stakeholders to seek to maximise external funding opportunities. As highlighted in this section, there is a realistic expectation that external funding will be secured where required, that the necessary steps have been taken to secure or progress this funding, but that growth will still be deliverable if funding turns out not to be forthcoming.

### 4.2 External Funding Sources

#### *Highways*

<b>Funding source</b>
Roads Investment Strategy 1
<b>Overview</b>
The first 'Road Investment Strategy' (RIS 1) is a long-term programme for motorways and major roads across England. It includes a multi-year investment plan, allocating around £15.2 billion invested in over 100 major schemes to enhance, renew and improve the network. RIS 1 was announced by the government in December 2014.
<b>Application to Epping Forest District</b>
M11 Junction 7a delivery. The works include: <ul style="list-style-type: none"><li>• Widening of Gilden Way to create a three lane road</li><li>• A new road to the east to replace part of the existing road, to link the improved Gilden Way to the M11 via a new Sheering Road roundabout</li><li>• A new stretch of road to reconnect to Sheering Road</li><li>• From the new Sheering Road roundabout, the link will continue in a north easterly direction to a second roundabout located south of Pincey Brook</li><li>• Two new roundabouts on either side of the M11 and connected by a new bridge over the M11</li><li>• Slip roads on and off the M11 for both north-bound and south-bound traffic</li></ul>

<sup>8</sup> Whilst the focus of this topic paper is on non-Garden Town sites, some of the external funding sources included in this section relate to the delivery of these sites.

Junction 7a is required to reduce congestion on the key routes through Harlow and towards Junction 7, and provide opportunities for new homes and economic growth – particularly at East of Harlow strategic site but also in other locations in the District.
<b>Actions to secure or progress funding</b>
Funding of up to £50million has been secured for Junction 7 has already been secured. This funding has instead been allocated to Junction 7a to provide greater capacity gains in the short term. (Junction 7 is on the list of schemes to be taken forward under RIS 2 – see below.)
<b>Key risks and contingency</b>
N/A

<b>Funding source</b>
Roads Investment Strategy 2
<b>Overview</b>
The second ‘Road Investment Strategy’ (RIS 2) is, like RIS 1, a long-term programme for motorways and major roads across England. It covers the period from 2020 to 2025. Funding of specific projects has not yet been announced; however, RIS 1 identified 15 projects which should be included in RIS 2, and Highways England has been undertaking strategic studies on six specific packages to address complex problems about the future of the road network.
<b>Application to Epping Forest District</b>
Minor upgrades to Junction 7 to provide access to the Latton Priory strategic site.
<b>Actions to secure or progress funding</b>
It is anticipated that £5m of funding is required for these works. Essex County Council have submitted the scheme to RIS 2
<b>Key risks and contingency</b>
If funding is not available from RIS 2 then it is possible for the scheme to be submitted into the next round of funding (RIS 3). If funding is not available, the cost will need to be borne by developers. It is expected that the improvements will involve some contributions from developments (including Latton Priory and other sites), even in the case of external funding. There is a potential opportunity for interim minor upgrades to Junction 7 to allow for the commencement of development on the Latton Priory strategic site. The cost of such upgrades are expected to be in the region of £5million <sup>9</sup> . A Memorandum of Understanding <sup>10</sup> has committed relevant parties (Epping Forest, Harlow, Uttlesford, East Hertfordshire, Essex County Council, Hertfordshire County Council and Highways England) to work together to resolve key highways issues, including improvements to M11 Junction 7.

<b>Funding source</b>
Housing Infrastructure Fund
<b>Overview</b>
The Housing Infrastructure Fund (HIF) is a government capital grant programme of initially up to £2.3 billion, awarded to local authorities on competitive basis. The purpose of the fund is to providing grant funding for new infrastructure that will unlock new homes in areas of greatest housing demand. It is broken into two categories: smaller (up to £10m) gap funding grants under the Marginal Viability Funding; and larger (up to £250m) grants for strategic

<sup>9</sup> Further work is being undertaken to refine this cost element.

<sup>10</sup> Memorandum of Understanding on Highways & Transportation Infrastructure for the West Essex/East Hertfordshire Housing Market Area (2017)

infrastructure under Forward Funding. Authorities were invited to bid in 2017 – for the larger Forward Funding, bids were in the form of an expression of interest, following which more detailed business cases should be produced.

#### **Application to Epping Forest District**

A new (second) Stort Crossing to the east of the existing crossing, comprising of an additional dual road crossing. Whilst this scheme falls outside of Epping Forest District, it is necessary to deliver the north-south sustainable transport corridor which would serve the Latton Priory strategic sites.

#### **Actions to secure or progress funding**

A total of £151 million is being sought from the HIF for improvements to the central Stort Crossing, delivery of a second Stort Crossing, and the first part of the sustainable transport corridor (between Harlow Town Centre and Eastwick). The bid (expression of interest) was submitted in September 2017 by Hertfordshire County Council and in March 2018 it was announced that the bid had been shortlisted for the next stage of consideration (business case). The timescales for final decision-making and awards of monies have not yet been announced.

#### **Key risks and contingency**

If funding is not available from the HIF the cost will need to be borne by developers. This may impact on the programme for delivering the works, and the wider programme for delivering the sustainable transport measures within the Harlow and Gilston Garden Town.

#### **Funding source**

Local Growth Fund

#### **Overview**

The Local Growth Fund (LGF) is government funding of at least £2bn a year from 2015/16 to 2020/21. Most of the funding is allocated through a competitive process, administered by the South East Local Enterprise Partnership (SELEP).

Through Growth Deals, Local Enterprise Partnerships can seek freedoms, flexibilities and influence over resources from Government, and a share of the Local Growth Fund to target their identified growth priorities. This includes putting forward activity and projects led by partners as part of a package bid.

#### **Application to Epping Forest District**

LGF funding has the potential to provide some or all of the funding required for transport mitigation measures, including improvements to Wake Arms roundabout, A104 Epping New Road (Robin Hood) roundabout, and the A121 Woodriven Hill/Woodgreen Road junction.

#### **Actions to secure or progress funding**

In recent years, the following schemes in or in proximity to the District have been successful in gaining funds from the LGF:

- A414 (Harlow to Chelmsford upgrades) – £3.66m LGF funding
- Harlow Gildea Way upgrading – £5m LGF funding
- M11 Junction 8 upgrading – £2.73m LGF funding

Essex County Council will continue to seek funding from the LGF as and when they are announced.

#### **Key risks and contingency**

If funding is not available from the LGF, costs will need to be borne by developers.



## **Education**

<b>Funding source</b>
Working Parents Allowance
<b>Overview</b>
The government provides a certain level of free childcare to parents: <ul style="list-style-type: none"><li>• All 3 to 4-years olds receive 570 hours of free education and childcare per year</li><li>• Some 3 to 4-year olds receive an addition 570 hours (1,140 hours in total) of free education and childcare per year, depending on eligibility criteria</li><li>• Some 2-year olds are also entitled to free education and childcare, depending on eligibility criteria</li></ul>
<b>Application to Epping Forest District</b>
Whilst free childcare is not a capital funding source per se, it may have the impact of increasing childcare places in the District through inducing additional demand for places. In particular, it may increase the number of places made available through childminders.
<b>Actions to secure or progress funding</b>
N/A
<b>Key risks and contingency</b>
N/A

<b>Funding source</b>
Basic Need Allocations
<b>Overview</b>
Basic Need Allocations is the capital funding given to education authorities by the Department for Education to help fulfil the duty to make sure there are enough school places for children in each local area. Essex County Council received over £38m in funding for 2019-20, and around £9m for 2020-21, across the county as whole. Whilst allocations for subsequent years have not been announced, it is expected that a similar system will continue.
<b>Application to Epping Forest District</b>
It is anticipated that developer contributions will fund the delivery of additional school capacity in its entirety. However, if there is a situation where there is a gap in funding, Basic Need Allocations could form part of the funding of such infrastructure. However, it should be noted that future allocations are expected to be comparatively small and will not therefore provide substantive funding to support newly arising educational requirements.
<b>Actions to secure or progress funding</b>
It is too early in the process to allocate funding from the Basic Need Allocations.
<b>Key risks and contingency</b>
In the case that Basic Needs Allocations is required and is applied for, there is no guarantee that the amount awarded by the Department for Education would be sufficient to fund the additional school places needed. Risks associated with Basic Funding include shortfalls in funding and time lag before funding is received.

### *Flood Defence*

<b>Funding source</b>
Environment Agency
<b>Overview</b>
Funding for strategic flood defence and management works <sup>11</sup> is usually directed by the Environment Agency.
<b>Application to Epping Forest District</b>
To deliver the Shonks Mill flood storage area
<b>Actions to secure or progress funding</b>
Shonks Mill flood storage area will be an Environment Agency-funded and delivered intervention. The intervention is one of the recommendations of the Roding Flood Risk Management Strategy (adopted by the Environment Agency 2012), proposed to reduce flood risk to properties in the lower Roding catchment. To date, EFDC has engaged with the Environment Agency through a series of meetings.
<b>Key risks and contingency</b>
There is a reasonable level of certainty that the scheme will be delivered; no additional contingency measures are therefore considered necessary.

### *Sports Facilities*

<b>Funding source</b>
Various
<b>Overview</b>
The Epping Forest Playing Pitch Strategy (2017) identifies a number of external funding sources for the delivery of playing pitches and sports facilities. They include: <ul style="list-style-type: none"><li>• Football Foundation</li><li>• Essex County Football Association</li><li>• England and Wales Cricket Board</li><li>• Essex County Cricket Club</li><li>• Rugby Football Union</li><li>• Corporation of London</li><li>• Local clubs, schools and town and parish councils</li></ul>
<b>Application to Epping Forest District</b>
To support the delivery of a range of new and upgraded playing pitches and sports facilities across the District.
<b>Actions to secure or progress funding</b>
Funding from these sources will be sought as specific proposals are progressed.
<b>Key risks and contingency</b>
If funding is not available these sources, then costs will need to be met through developer contributions.

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<sup>11</sup> Where specific measures are required to support individual sites, these would be funded by developers. Contributions may be sought for flood risk management measures, including alleviation, storage and related environmental enhancement.

### 4.3 Other Potential External Funding Sources

4.3 In addition, there are a number of other external funding sources which have not been identified in the IDP but may offer opportunities to deliver the infrastructure required.

- **Home Building Fund.** This is a government funding source designed to accelerate the delivery of new homes through both funding infrastructure and providing development finance to help SMEs. Finance is available to all private sector organisations involved in delivering new homes and the provision of enabled sites ready for residential-led schemes. Applicants must demonstrate that without funding the scheme would not progress as quickly, or at all.
- **General Practice Forward View.** This is an overarching programme from NHS England designed to help for struggling GP practices, plan for workforce changes, invest in technology and estates, and speed up transformation of services. Part of the programme is the Estates and Technology Transformation Fund, which includes funding for new consulting and treatment rooms, improved reception and waiting areas, and building new centres with a greater range of services in one place.
- **Primary Care Transformation Fund (or similar).** The Primary Care Transformation Fund is a historic funding source from NHS England to help GP practices increase their clinical capacity. The last round of funding ran in 2015 – however, there may be opportunities to bid for similar funding in the future.
- **Capital funding from public transport providers.** There may be opportunities for some capital works, such as station upgrades, bus gates or real-time information systems, from public transport providers.
- **Forward funding or finance from EFDC.** EFDC have a positive intention to explore the option of providing forward funding or finance (rather than grant funding) to support key infrastructure, for example the relocation of Princess Alexandra Hospital.
- **Additional support from SELEP.** There may be opportunities to bid for and receive additional funding and support from SELEP in the future.
- **Additional support from other public sector organisations.** There may be opportunities to utilise funding from other national and local government sources or other public sector organisations.

## **5. Community Infrastructure Levy**

### **5.1 Overview**

5.1 EFDC do not currently have a CIL Charging Schedule. This section provides an update on the work done to date on CIL, as well as an overview of the role that CIL might play in funding infrastructure over the Plan period.

### **5.2 Work Done to Date**

5.2 To date, two main pieces of work have been undertaken to understand the viability of affordable housing, CIL and the Local Plan more generally. The Stage 1 assessment reviewed viability at a high level and introduced potential options for policy development (including on the proportion of affordable housing and affordable housing thresholds) and broad parameters for viable levels of CIL. The Stage 2 assessment updates and refines this work. Overall, the work:

- provides the viability evidence base to inform the Local Plan as well as potential options for the delivery of the CIL;
- provides recommendations for appropriate levels of affordable housing and CIL whilst ensuring development is viable; and
- assess the viability of development site typologies.

### **5.3 Indicative Funds Through CIL**

5.3 CIL is payable on development which creates net additional floorspace, where the gross internal area of the new build is 100sqm or greater (or on dwellings of any size). However, there are some exemptions, which include<sup>12</sup>:

- Houses, flats, residential annexes and extensions built by 'self-builders'.
- Social housing.
- Charitable development.
- Specified types of development which local authorities have decided should be 'zero rated' and are specified as such in their CIL Charging Schedule.
- Vacant buildings brought back into the same use.

5.4 The viability work suggests minimum and maximum charges for different types of development and different locations, as shown in Table 1.

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<sup>12</sup> Note, this list is not exhaustive – the full list is set out in in the Planning Practice Guidance.

Figure 1 Indicative CIL charges

Type of development	Indicative charge (minimum)	Indicative charge (maximum)
Residential development – Waltham Abbey <sup>13</sup> and Harlow strategic sites	£80sqm	£100sqm
All other residential development	£150sqm	£225sqm
Retail development	£80sqm	£100sqm
All other development uses	£0sqm	£0sqm

5.6 For comparison, Chelmsford’s Charging Schedule is set at £164 for residential and £197 for A1 retail and £114 for other retail<sup>14</sup>, whilst Brentwood’s Draft Charging Schedule set rates for consultation at £200 for residential, £200 for food supermarket, and £125 for all other retail<sup>15</sup>.

5.7 In order to estimate the number amount of CIL monies that might be collected, the following assumptions have been used:

- It has been assumed that all the allocations included in the Local Plan Submission Version will come forward, as per the trajectory. It also includes a level of windfall residential development (35 dwellings per year from 2022/23 onwards), consistent with the Local Plan Submission Version.
- The calculation excludes commitments which already have a planning permission in place.
- It is assumed that a level of 40% affordable housing on all sites of 11 or more units (as per Policy H2 in the Local Plan Submission Version). Affordable housing has not been applied to the windfall element on the assumption that the majority of windfall development will be on small sites.
- It is assumed CIL Charging Schedule will not be in place until April 2021, therefore development expected before this time has been assumed to not deliver CIL monies.
- An average dwelling size of 100sqm has been used (equivalent to around a 3-bed semi-detached property). In reality, the floorspace delivered will differ from site to site.

<sup>13</sup> The viability work states that this lower charge should be considered unless on small-scale greenfield sites with minimal strategic infrastructure requirements, where no significant established / alternative use value applies. For the purposes of this assessment, the lower charge has been applied to all sites within Waltham Abbey.

<sup>14</sup> <https://www.chelmsford.gov.uk/planning-and-building-control/community-infrastructure-levy/> (accessed 26/03/2018)

<sup>15</sup> <http://www.brentwood.gov.uk/index.php?cid=2457> (accessed 26/03/2018)

- Given that none of the allocations are explicitly allocated for retail development, no development of this type has been included in the calculation. In reality, such type of development is likely to come forward as part of mixed use development on some of the sites, and so the indicative figures below are conservative.
- It has been assumed that there is no existing floorspace which must be discounted from the calculations. On a very limited number of sites there may be some existing floorspace within the same use, but this is very minimal.

5.8 Based on the indicative charges outlined in the viability work and the assumptions outlined below, it is possible that **between £67.6 million and £95.7 million** might be generated through CIL in the future. It should be stressed that this represents a 'best case' scenario, though reasonable assumptions have been used.

#### 5.4 CIL and Section 106

5.9 CIL is intended to provide infrastructure to support the development of an area, rather than making individual planning applications acceptable in planning terms. Some site-specific infrastructure or impact mitigation may still be necessary in order for a development to be granted planning permission. Whilst some of these needs may be provided for through CIL, others may not (e.g. if they are very local in their impact). There is therefore still a requirement for other planning obligations alongside CIL<sup>16</sup>.

5.10 Where a CIL Charging Schedule is in place, Section 106 will still be used to fund infrastructure when it is specifically required to facilitate development of the site – for example: any works necessary for access and/or public transport on or adjacent to the site; dedicated early years and education provision to serve the site; dedicated health facilities to serve the site; on-site open space; and site-specific provision and maintenance of flood defences and water management (e.g. SuDS). Section 106 will also be used to deliver affordable housing.

5.11 However, it is important that the local use of CIL and planning obligations do not overlap. The Regulations restrict the use of local planning obligations (such as Section 106) to ensure that individual developments are not charged for the same items twice. Where the local planning authority has indicated that it intends to fund an item of infrastructure through CIL, it cannot also seek money through Section 106 for the same thing.

5.12 In accordance with Regulation 123 of the CIL Regulations 2010 (as amended), a Regulation 123 infrastructure list sets out a list of those projects or types of infrastructure that it intends to fund (or may fund) through CIL. By omission, the infrastructure list also provides clarity on what is expected to be funded through planning obligations. A Regulation 123 infrastructure list will be produced as part of

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<sup>16</sup> Planning Practice Guidance Paragraph: 094 Reference ID: 25-094-20140612. Available at: <https://www.gov.uk/guidance/community-infrastructure-levy> (accessed 13 March 2018).

any progression of a CIL Charging Schedule and will be updated periodically once CIL is in place locally.

- 5.13 The Regulation 123 list can be changed by the charging authority without the need for examination, and so can be reviewed as the infrastructure needs change. As the charging authority, it will be at the discretion of the District as to how changes are consulted. However, a list will need to be provided as part of the CIL Charging Schedule Independent Examination in order to show the balance between Section 106 and CIL.



## **Appendix B**

### Infrastructure Delivery Topic Paper Addendum

**Epping Forest District Local Plan  
Infrastructure Delivery Topic Paper:  
Highways and Education  
Apportionment Addendum**

**April 2019**

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## 1. Introduction

### 1.1 Overview

- 1.1 Epping Forest District Council (EFDC) have prepared a Submission Version Local Plan (EB114) which sets out the strategy for meeting the District's needs from up to 2033. It includes: The Council's vision and objectives for the District; policies to ensure that high quality development; and proposals for the delivery of infrastructure to support this development.
- 1.2 EFDC commissioned the preparation of an Infrastructure Delivery Plan (IDP) (EB1101A/B), forming part of the evidence base for the Local Plan. The purpose of the IDP is to set out the infrastructure that will be required to deliver the planned level of housing and employment growth in the District over the Plan period to 2033.
- 1.3 The IDP included consideration of highways infrastructure. Highways infrastructure refers to both the strategic road network and local roads within the District. Highways England is responsible for providing and managing the strategic network, whilst the local road network is managed by Essex County Council (Essex Highways), which is the highways authority.
- 1.4 The IDP also included education, including early years, primary and secondary provision. Essex County Council is the education authority for the District.
- 1.5 To support the Local Plan Independent Examination and building on the IDP, EFDC prepared an Infrastructure Delivery Topic Paper (ED2 / EB1101C). The purpose of the Topic Paper is to provide more information and certainty on infrastructure delivery, as well as a more general update on the work undertaken since the IDP was published. It includes a high level framework for apportionment and pooling arrangements to be taken forward for key infrastructure, alongside identification of external funding sources and the EFDC position on CIL and Section 106.
- 1.6 This Highways and Education Apportionment Addendum builds on the Topic Paper and demonstrates how required interventions might be apportioned to specific sites, and how contributions might be sought. It is worth noting that, whilst this Addendum groups developments into specific 'pools', further discussions and negotiations will be required through the production of strategic masterplans, concept frameworks and planning applications, which will determine specific pooling and delivery arrangements as further information becomes available.
- 1.7 This Addendum does not restrict EFDC or Essex County Council from taking a different approach to apportionment and pooling in the future, so long as it is compliant with the prevailing Regulations.
- 1.8 The information provided within the Topic Paper and Addendum will help to inform consideration of specific developer contributions that are likely to be required to support the development of specific sites. However, it should be noted that specific requirements associated with development proposals will be subject to refinement

and discussion with the Council and infrastructure providers as proposals emerge. In addition, the estimates for costs associated with individual infrastructure projects will be subject to change as further technical work progresses associated with the implementation of the Local Plan, the production of Strategic Masterplans, and the progression of individual development proposals. Applicants are advised to discuss specific requirements with the Council at the earliest possible stage through the pre-application process prior to the submission of planning applications.

- 1.9 The Council recognises that further consideration will need to be given to assess the implications of specific requirements for infrastructure contributions associated with development proposals in relation to viability, particularly in light of the National Planning Policy Framework 2019 (paragraph 57). This will draw on the published Local Plan Viability Studies (EB300 and EB301) in order to provide an up to date evidence base which informs the progression and determination of planning applications through the development management process.

## **1.2 Structure of this Topic Paper**

1.10 The remainder of the Topic Paper is structured as follows:

- Section 2 outlines the general approach to apportionment and pooling that is set out in the Topic Paper has been used for the purposes of this Addendum;
- Section 3 summarises the methodology and findings in relation to highways; and
- Section 4 summarises the methodology and findings for education.

1.11 More information is provided in a series of appendices.

## 2. Apportionment and Pooling Methodology

### 2.1 Overview

- 2.1 As far as possible in accordance with the relevant regulations, new developments should meet their own infrastructure needs. This is often done through seeking Section 106 contributions to deliver the required infrastructure to support development. For highways, Section 278 Agreements or Section 38 Agreements (commuted sum for maintenance following adoption)<sup>1</sup> may also be used.
- 2.2 Under the CIL Regulations 2010 (2014 amendments) there are currently restrictions on the 'pooling' of separate Section 106 planning obligations, so that authorities cannot pool more than five obligations to pay for a single piece of infrastructure. (There are no limits on pooling for Section 278 Agreements, though in practice pooling a large number of Section 278 Agreements might not be practicable.)
- 2.3 Given this legislative context, the Topic Paper provides a high level framework for the apportionment of infrastructure costs between multiple developments, and how these might be collected under the pooling restrictions. This Addendum also considers the impacts of the pooling restriction.
- 2.4 It should be noted that the Government has committed to introducing guidance on the use of CIL and planning obligations, and it is expected that the restriction on pooling will be lifted.

### 2.3 Topic Paper Framework

- 2.5 The Infrastructure Delivery Topic Paper (ED2 / EB1101C) set out the following approach to apportionment in relation to highways:
  - Highways mitigation schemes will be matched to those developments which result in that mitigation being required. It should be noted that strategic or route-based transport schemes may serve a large number of developments, to different degrees.
  - Costs of the mitigation schemes will be apportioned based on the level of impact arising from each development (for example, the number of homes or additional trips generated).
  - It will be identified which mitigation schemes are likely to be subject to pooling restrictions – i.e. where schemes would be funded through Section 106 versus where they would be delivered through a Section 278 Agreement.
  - (It should be noted that the Developers' Guide to Infrastructure Contributions Revised Edition states that Essex County Council generally expects that

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<sup>1</sup> Note, Section 38 Agreements are not normally used to deliver mitigation schemes. Any commuted sums for maintenance will be required in accordance with Essex Highways Developer's Construction Manual.

developers will complete or procure any necessary works to mitigate the impact of their development. Where more than one development in an area generates the need for a specific highways scheme, financial contributions may be secured through Section 106 Agreements – however, this approach will ‘only be taken in exceptional circumstances’.)

2.6 The Topic Paper set out the following approach to apportionment in relation to early years provision, primary and secondary education:

- Schemes for new education and early years facilities, including replacement of temporary facilities with permanent ones, will be matched to the most relevant housing allocation(s) which result in that scheme being required.
- The costs of each scheme will be apportioned based on the level of impact arising from each of these developments (i.e. the resulting ‘pupil product’, as set out in the ECC’s Developers’ Guide to Infrastructure Contributions).

2.7 If the apportionment of costs in relation to highways or education results in potential issues around the pooling restriction, the following approach will be taken:

- Where possible, schemes will be broken down into separate ‘projects’ that can be phased and delivered independently and for which five or fewer contributions are required. For example, it may be possible to break a junction scheme up into separate ‘carriageway works’, ‘signals’ and ‘pedestrian/cycle realignment’ projects. For education, it may be possible to break a new secondary school up into separate phases of development. This aligns with the preferred delivery of such facilities (rather than opening a new secondary school in its entirety where the demand for places is not yet in place).
- If it is not possible for the project to be broken down in this manner, then the method of contribution will be reconsidered – i.e. whether a highways scheme could instead be delivered through a Section 278 Agreement (which are not subject to pooling restrictions). This should take into account the likelihood of the method of contribution being entered into jointly and the impact of a particular development not coming forward.
- A minimum threshold (in terms of the number of units delivered) for contributions may also be applied to reduce the number of sites which are liable to contribute to such infrastructure. Thresholds for education and childcare places are already applied by Essex County Council, as set out in the Developers’ Guide to Infrastructure Contributions. However, this would likely reduce the total amount of monies available for collection.

2.8 In general, where new schools are needed the first developments will be expected to fund the provision and building of those new schools. Later developments coming forward that require substantial extra capacity and trigger a need for expansion will contribute to that expansion of provision e.g. additional school classrooms, as a

separate project. Where economies of scale or other benefits can be achieved ECC may consider delivering more than one phase of a project in unison e.g. a new two form-entry primary school rather than building a single form of entry first. On occasions this could involve Essex County Council forward funding projects and seeking reimbursement from future Section 106 contributions as they are received. In some instances, infrastructure is expected to be delivered on one site but will also serve other sites.

- 2.9 As it is not the role of the planning system to 'equalise' costs between landowners and developments, land costs are not factored into the costs calculated in this topic paper. However, the Council acknowledges that this will be necessary in future to ensure that contributions provided by individual sites and developments will be fair and equitable, and to ensure that viability of individual schemes is not unduly affected. Detailed discussions with all relevant stakeholders will be required as and when detailed schemes / planning proposals are being put forward.



## 3. Highways Apportionment

### 3.1 Summary of Highways Modelling Undertaken

- 3.1 Epping Forest District Council and Essex County Council have commissioned several studies in recent years to understand the existing highways issues, including detailed junction modelling. The full approach to modelling is set out in the Transport Assessment Report (EB503).
- 3.2 The Epping Local Plan Highway Impact Assessment (Ref), Essex Highways Technical Notes 1-8 (EB500A/B/C/D/E/F/G/H) and subsequent Transport Assessment Report, used a 'scenario-based' approach to understand the impact that growth might have on highways infrastructure, and in particular on junction capacities. The assessment has found that a number of junctions are expected to be operating over capacity as a result of growth.
- 3.3 The ability to mitigate for the impact of growth has been considered, taking into account land take, land ownership, and other feasibility considerations. Through this, a list of potential improvement schemes has been produced, and is presented in the final Transport Assessment Report.

### 3.2 Approach

- 3.4 A spreadsheet model has been developed which calculates the contributions that might be collected towards particular highways infrastructure projects. Appendix A sets out this spreadsheet model.
- 3.5 The approach undertaken, including any assumptions used, is set out below.

#### *Schemes*

- 3.6 The spreadsheet model includes the following schemes:
  - Assessed junction schemes included in the Essex Highways Technical Notes 1-8 (EB500A/B/C/D/E/F/G/H) (non-assessed junctions have not been included unless a scheme has been identified).
  - Other junctions identified following production of the Technical Notes.
- 3.7 Schemes relating to the Harlow and Gilston Garden Town are not included. The Council is working with the other 'Garden Town' local authorities (Harlow District Council, East Herts District Council, Herts County Council and Essex County Council) to produce an updated Infrastructure Delivery Plan for the entire Harlow and Gilston Garden Town. Once complete, this will identify in further detail the infrastructure required across the Garden Town as a whole (including highways), as well as which specific sites will be expected to deliver or contribute to infrastructure. This work has therefore not been replicated in this Addendum.
- 3.8 There are some schemes included in the IDP which were have been highlighted through consultation with town and parish councils. These have not been included

in the analysis, as the focus is on the schemes which the highways modelling suggests are essential to deliver the Local Plan growth. There is an Epping Forest Local Highways Panel, responsible for making recommendations and setting priorities for local highway schemes in the district. The Panel typically promotes town and parish council schemes and those that should be delivered by Local Transport Plan.

### *Matching schemes to development allocations*

- 3.9 Detailed modelling on the highways impact of each residential and employment development allocation does not exist. Schemes have instead been matched to development allocations based on professional judgement as to where the impacts of development are likely to arise from.
- 3.10 For many of the schemes the matching of schemes to allocations is on a settlement or group of settlements basis, although some schemes relate to particular sites or masterplan areas only.
- 3.11 It should be noted that the proposed funding and apportionment contributions for physical highway improvement works at Four Wantz Roundabout, Wake Arms Roundabout and Robin Hood Roundabout have been removed from the Infrastructure Delivery Plan.
- 3.12 Funding has been committed to the A414 route improvement works, which includes the Four Wantz Roundabout layout improvements. These will be jointly funded by Essex County Council and South East Local Enterprise Partnership through the Local Government Fund and are scheduled to be delivered in 2021.
- 3.13 The updated Habitats Regulation Assessment 2019 (EB209) indicates that the physical highway improvement works at Wakes Arms Roundabout and Robin Hood Roundabout would not be needed to support improvements in air quality arising from new development over the period of the Local Plan, and that such works would have a likely significant effect on the integrity of the Epping Forest Special Area of Conservation and are therefore unlikely to be deliverable.

### *Apportionment and pooling*

- 3.14 Detailed modelling on the highways impact of each development allocation does not exist. Apportionment of residential allocations to highways development allocations is instead based on unit numbers as a suitable proxy for impact.
- 3.15 Contributions towards highways improvements are likely to be required from some employment allocations. Any contributions would be commensurate with the level of traffic impact generated by specific sites and would take account of the overall location and proposals to reduce car use. For guidance purposes only, the following floor areas have been calculated to compare the likely impact from different employment uses with residential sites. The floor areas approximate to the trip generation from twenty residential units:

- 500sqm of B1a floorspace
- 2,000sqm of B1c/B2 floorspace
- 4500sqm of B8 floorspace

3.16 The respective floor areas have been calculated from the aggregated AM/PM peak hour trip generation estimates of the different land uses. This is a high level guide for comparison purposes only and will fluctuate between sites in town centre locations and more remote locations. The stated floor areas are not intended to be prescriptive and by no means represent a tariff-based approach.

3.17 The ready reckoner results in the comparisons set out in Table 1 below. Where a number of use classes is set out in the Submission Version Local Plan, the ready reckoner for B1c/B2 has been used.

Table 1 – Ready reckoners applied to employment allocations

Ref	Name	Allocated use	Floorspace (sqm)	Housing units comparison		
				B1a	B1c/B2	B8
LOU.E2	Langston Road Industrial Estate	B2	4,000		40	
NWB.E4	North Weald Airfield	B1/B2/B8	40,000	1,600	400	178
RUR.E19	Dorrington Farm	Not included - Harlow Strategic Site				
WAL.E6	Galley Hill Road Industrial Estate	B2/B8	5,120		51	23
WAL.E8	Land North of A121	B1c/B2/B8	40,000		400	178

3.18 Unlike education, the Essex County Council Developers' Guide to Infrastructure Contributions Revised Edition (2016) does not state a size threshold, i.e. a number of homes over which they would expect contributions towards highways. For the purpose of the apportionment, only sites with 20 or more units have been assumed to contribute. In reality, contributions will be linked to Transport Statements and Transport Assessments (where the Epping Forest District Council Planning Application Validation Requirements Checklist (EB912) requires these), determined in detail as schemes comes through.

3.19 Under the CIL Regulations 2010 (2014 amendments), there are currently restrictions on the 'pooling' of separate Section 106 planning obligations, so that authorities cannot pool more than five obligations to pay for a single piece of infrastructure. As set out in 2.4, the restriction on pooling is likely to be lifted in the future.

3.20 There are some schemes shown in the model which may rely on contributions from more than five developments. No re-apportionment has been undertaken to overcome this at this stage, for the following reasons:

- It is not always clear whether these upgrades would be sought through Section 106 or Section 278 (for which there is no pooling limit).
- Schemes may be broken down into separate 'projects' in the future that can be phased and delivered independently and for which five or fewer contributions are required. As detailed scheme design has not taken place it is not confirmed that this is possible – although it is considered that there is considerable scope to deliver phased upgrades.
- If the pooling restriction is removed there will no longer be a barrier to pooling contributions.

## Costs

3.21 For the purposes of the spreadsheet model, the following approach to scheme costs have been undertaken:

- Where cost estimates are already available through the IDP, they have been used.
- Where cost estimates are not available, a 'dummy cost' has been used (clearly flagged in the model – see Appendix A).

3.22 The costing of schemes set out in the spreadsheet model will be revised in line with planning applications, and the process of resolving will be as and when schemes are developed in more detail.

## 3.3 Summary of Findings

3.23 The highways apportionment model is shown in Appendix A.

3.24 Given that dummy costs are still being used, an accurate position on the contributions which might be expected from each development allocation is not available. As more certainty around scheme design and costs is known, the apportionment model can be revised and a position on contributions can be reached.

3.25 As explained in paragraph 3.18, there are some schemes shown in the model which may rely on contributions from more than five developments. The Government has committed to introducing guidance on the use of CIL and planning obligations, and it is expected that the restriction on pooling will be lifted. If the restriction remains, the following approaches should be explored to ensure that contributions can be collected in line with the CIL Regulations:

- The approach to matching schemes to development allocations should be revisited to explore whether there are options for rationalisation.
- Where possible, schemes could be broken down into separate 'projects' that can be phased and delivered independently and for which five or fewer

contributions are required. This requires more information on scheme design than currently available for most schemes.

- The method of contribution should be reconsidered – i.e. use of a Section 278 Agreement rather than a Section 106 Agreement.
- A minimum threshold (in terms of the number of units delivered) for contributions may also be applied to reduce the number of sites which are liable to contribute to such infrastructure, although this would likely reduce the total amount of monies available for collection.

## 4. Education Apportionment

### 4.1 Approach

- 4.1 A spreadsheet has been developed which calculates the contributions that might be collected each of the Local Plan residential allocations towards identified education infrastructure projects.
- 4.2 The model applies a per-unit contribution taken from the Essex County Council Developers' Guide to Infrastructure Contributions, and calculates the total contribution towards each infrastructure project and (if applicable) the funding gap. In reality, the amount of contributions required may be different from this per-unit contribution based approach as it will be based on actual quantum, unit mix, project cost and viability considerations etc. at the time of the application.
- 4.3 The following general assumptions have been used in the modelling:
- It has been assumed that one site equals one Section 106 Agreement. In reality land ownership or sub-phasing of sites may mean that more than one Agreement is required; however, at this stage it is not known where this will apply.
  - An assumption of the mix of units (between houses and flats) has been made in order to generate pupil yields and to apply Essex County Council's standard costs (expansion and new build).
  - The 2016 version of the Essex County Council Developers' Guide to Infrastructure Contributions applies a threshold for contributions of any development that would produce more than six pupils in either the primary or secondary age group. The formula is set out in the Developers Guide. If all units built on a development were houses (as oppose to flats) the threshold would be reached for primary school contributions at 20 houses and 30 houses for secondary). This threshold does not apply to early year and childcare provision. Instances where one developer may provide land for and/or deliver an education or early years facility which will be used to meet the demand generated by other sites has not been taken into account as part of this exercise. However, an arrangement may be reached between landowners and/or developers (e.g. equalisation agreements) through masterplanning / planning application process.
  - Modelling undertaken by Essex County Council to understand the future requirements for the provision of primary and secondary education school places took into account existing capacity of schools and so no additional adjustment is required. More information can be found in Section 6.2.3 of the IDP Part A Report (EB1101A).

- 4.4 The approach to attributing, apportioning and pooling contributions for early years, primary and secondary education is set out in more detail in the following subsections.

## *Early Years*

### Attribution

- 4.5 Essex County Council plan for early years provision on a ward geography basis. This approach has been used to attribute sites to early years interventions.

### Apportionment and Pooling

- 4.6 Where more than five sites fall within a ward, in deciding which sites might contribute the impact of the sites (based on child yield generated) was taken into account. Actual contribution will also depend on size of the proposed development and local provision at the time of the application.

## *Primary Education*

### Attribution

- 4.7 The approach to apportioning development to indicative mainstream primary education interventions identified in the IDP is as follows:
- Growth in Buckhurst Hill and Loughton to be served by expansion of one or more primary schools in the Buckhurst Hill / Loughton Forecast Planning Group (FPG).
  - Growth in Chigwell and Stapleford Abbots to be served by expansions and replacement of temporary accommodation in the Chigwell / Lambourne FPG. It has been assumed that some replacement of temporary accommodation would be before the expansion, and some after.
  - Growth in Epping, Thornwood and Coopersale to be served by a new primary school in Epping and replacement of temporary accommodation within the Epping FPG. It has been assumed that contributions towards the replacement of temporary accommodation would come first.
  - Growth in Ongar, High Ongar and Fyfield to be served by expansions and new permanent facilities in the Chigwell / Lambourne FPG, plus replacement of temporary facilities with permanent facilities within the Ongar FPG.
  - Growth in Nazeing to be served by an expansion of Nazeing Primary School.
  - Growth in North Weald Bassett to be served by a new primary school at North Weald Bassett.
  - Growth in Waltham Abbey to be served by two expansions in the Waltham Abbey FPG, plus replacement of temporary facilities with permanent facilities.
  - Growth at East of Harlow and in Sheering and Lower Sheering to be served by a new primary school at East of Harlow.



- Growth at Latton Priory to be served by a new primary school at Latton Priory.
- Growth at Water Lane Area and in Roydon to be served by a new primary school at Water Lane Area.

## Apportionment and Pooling

4.8 Where more than five sites are expected to benefit from the infrastructure intervention, in deciding which sites might contribute the following was taken into account:

- Impact, based on pupil yield generated.
- Broad phasing (start dates)

## *Secondary Education*

### Attribution

4.9 The approach to apportioning development to indicative secondary (mainstream 11-16) education interventions identified in the IDP is as follows:

- Growth in Epping, Ongar, High Ongar, Fyfield & Stapleford Abbots, Theydon Bois and Waltham Abbey to be served by expansion of up to three secondary schools which serve these areas.
- Growth in Loughton, Chigwell and Buckhurst Hill to be served by two expansions – potentially one to serve the Loughton area and one to serve the Chigwell area.
- Growth at East of Harlow and in Sheering & Lower Sheering to be served by a new secondary school at East of Harlow.
- Growth in Roydon and Nazeing to be served by secondary schools in Harlow Forecast Planning Group. At the time of writing, the capacity of secondary schools in the Forecasting Group is not known; however, appropriate level of contributions towards increased provision will be required.
- All other growth (Latton Priory, Water Lane, North Weald Bassett and Thornwood) to be served by a new secondary school at Latton Priory.

## Apportionment and Pooling

4.10 Where more than five sites are expected to benefit from the infrastructure intervention, in deciding which sites might contribute the following was taken into account:

- Impact, based on pupil yield generated.
- Broad phasing (start dates)

## *Costs*

4.11 All the costs quoted are at April 2017 prices and indexation from this date using the PUBSEC index should be applied to understand current costs.

### **3.1 Summary of Findings**

4.12 The apportionment model is shown in Appendix B.

## **Appendix A Highways Apportionment**

### **Legend**

Table 1: Sites apportioned to infrastructure interventions (pages 17-24)

Table 2: Indicative costs by site and infrastructure interventions (pages 25-32)

## Appendix B Education Apportionment

## Appendix C

Infrastructure Delivery Topic  
Paper Addendum: Highways  
Apportionment

# Highways

Apportionment - whole cost met (£)

REF	IDP REF	PROJECT	DETAILS	Type	Notes	COST	Harlow Strategic Sites			Epping							LOU.R3	LOU.R4	LOU.R6	LOU.R7				
							SP 5.1 Latton Priority	SP 5.2 Water Lane	SP 5.3 East of Harlow	EPP.R1	EPP.R2	EPP.R4	EPP.R5	EPP.R6	EPP.R8	EPP.R9					EPP.R11			
							2023/2024	2023/2024	2025/2026	2028/2029	2028/2029	2022/2023	2023/2024	2023/2024	2022/2023	2022/2023					2029/2030	2023/2024	2023/2024	0
							1,050	2,100	750	225	225	34	43	78	44	50	11	9	217	9	20			
J2	NWB3	Highways	Junction 2 – Talbot PH Roundabout, North Weald	Roundabout junction		£2,000,000																		
J4	WAB7	Highways	Junction 4 – B194 Highbridge Street / Abbeyview Roundabout, Waltham Abbey	Roundabout junction	Issue with PM peak only. No improvements currently designed - not apportioned on this basis	£1,000,000																		
J6	WAB4	Highways	Junction 6 – A112 Sewardstone Road / Sun Street Signalised Junction, Waltham Abbey	Signalised Junction		£1,000,000																		
J8	EPP6	Highways	Junction 8 – B1393 Thornwood Road Signalised Junction, Epping	Signalised Junction		£1,000,000				£96,941	£96,941	£14,649	£18,526	£33,606	£18,957	£21,542								
J9a	EPP3	Highways	Junction 9a – B1393 High Street / Station Road Roundabout, Epping	Roundabout junction	May not be implementable due to need for third party land and effects on veteran / significant trees.	£1,000,000				£96,941	£96,941	£14,649	£18,526	£33,606	£18,957	£21,542								
J9b	EPP3	Highways	Junction 9b – B1393 High Street / St. John's Road Roundabout, Epping	Roundabout junction	May not be implementable due to need for third party land and effects on veteran / significant trees.	£1,000,000				£96,941	£96,941	£14,649	£18,526	£33,606	£18,957	£21,542								
J10	EPP4	Highways	Junction 10 – B1393 Epping Road / Theydon Road Signalised Junction, Epping	Signalised Junction	Apportioned to South Epping Masterplan only.	£1,000,000				£500,000	£500,000													
J11	EPP5	Highways	Junction 11 – B1393 High Road / Bury Lane Roundabout, Epping	Roundabout junction		£1,000,000				£96,941	£96,941	£14,649	£18,526	£33,606	£18,957	£21,542								
J13	ONG3	Highways	Junction 13 – A113 Coopers Hill / Brentwood Road Roundabout, Marden Ash / Ongar	Roundabout junction		£1,000,000																		
J18	LOU2	Highways	Junction 18a/b - A121 Church Hill / A1168 Rectory Lane, Loughton	0		£1,000,000															£237,939	£21,930		
J19	THB3	Highways	Junction 19 – B172 Coppice Road / Piercing Hill Signalised Junction, Theydon Bois	Priority junction		£1,000,000				£258,324	£258,324	£39,036	£49,369	£89,552	£50,517	£57,405								
J22	WAB5	Highways	Junction 22 – M25 J26 Southern Roundabout, Waltham Abbey	Roundabout junction	Agreement with developer of WAL.E8 to fund and deliver this scheme in its entirety.	£3,000,000																		
J24	WAB6	Highways	Junction 24 – B194 Highbridge Street / Meridian Way Signalised Junction, Waltham Abbey	Signalised junction		£2,000,000																		
J25	LOU3	Highways	A1168 Chigwell Lane/Langston Road/Oakwood Hill, Loughton/Debden	0	(Additional intervention identified following Technical Note.)	£3,000,000																£1,166,667	£107,527	
	ONG4	Highways	Four Wantz Roundabout	0		£1,000,000																		
	EPP7	Highways	Minor widening of the Wake Arms roundabout to better allow left hand exit from A121 to Epping Road B1393	0	(Additional intervention identified following Technical Note.)	Unknown																		
	NWB4	Highways	A414 Rayley Junction improvement	0		£200,000																		
	DW5	Highways	M11 Junction 5 upgrades	0	(Additional intervention identified following Technical Note.)	£1,000,000																	£388,889	£35,842



**Highways**  
Apportionment - whole cost met (£)

REF	IDP REF	PROJECT	DETAILS	gar			Buckhurst Hill			North Weald Bassett					Theydon Bois									
				ONG.R5	ONG.R6	ONG.R7	ONG.R8	BUCK.R1	BUCK.R2	BUCK.R3	NWB.R1	NWB.R2	NWB.R3	NWB.R4	NWB.R5	NWB.E4	CHIG.R4	CHIG.R5	CHIG.R8	CHIG.R9	CHIG.R10	CHIG.R11	THYB.R1	THYB.R2
				2023/2024	2022/2023	2023/2024	2022/2023	2022/2023	2023/2024	2022/2023	2023/2024	2022/2023	2023/2024	2022/2023	2023/2024	2022/2023	2023/2024	2025/2026	2030/2031	2022/2023	0	2022/2023	0	2022/2023
				107	33	17	9	31	41	15	223	21	728	27	51	400	105	65	6	14	11	11	39	12
J2	NWB3	Highways	Junction 2 – Talbot PH Roundabout, North Weald	£106,256	£32,771						£221,450	£20,854	£722,939	£26,812	£50,645	£397,219								
J4	WAB7	Highways	Junction 4 – B194 Highbridge Street / Abbeyview Roundabout, Waltham Abbey																					
J6	WAB4	Highways	Junction 6 – A112 Sewardstone Road / Sun Street Signalised Junction, Waltham Abbey																					
J8	EPP6	Highways	Junction 8 – B1393 Thornwood Road Signalised Junction, Epping								£96,079	£9,048	£313,658	£11,633	£21,973	£172,340								
J9a	EPP3	Highways	Junction 9a – B1393 High Street / Station Road Roundabout, Epping								£96,079	£9,048	£313,658	£11,633	£21,973	£172,340								
J9b	EPP3	Highways	Junction 9b – B1393 High Street / St. John's Road Roundabout, Epping								£96,079	£9,048	£313,658	£11,633	£21,973	£172,340								
J10	EPP4	Highways	Junction 10 – B1393 Epping Road / Theydon Road Signalised Junction, Epping																					
J11	EPP5	Highways	Junction 11 – B1393 High Road / Bury Lane Roundabout, Epping								£96,079	£9,048	£313,658	£11,633	£21,973	£172,340								
J13	ONG3	Highways	Junction 13 – A113 Coopers Hill / Brentwood Road Roundabout, Marden Ash / Ongar	£189,716	£58,511																			
J18	LOU2	Highways	Junction 18a/b - A121 Church Hill / A1168 Rectory Lane, Loughton	£117,325	£36,184																			
J19	THB3	Highways	Junction 19 – B172 Coppice Road / Piercing Hill Signalised Junction, Theydon Bois																					
J22	WAB5	Highways	Junction 22 – M25 J26 Southern Roundabout, Waltham Abbey																					
J24	WAB6	Highways	Junction 24 – B194 Highbridge Street / Meridian Way Signalised Junction, Waltham Abbey																					
J25	LOU3	Highways	A1168 Chigwell Lane/Langston Road/Oakwood Hill, Loughton/Debden														£564,516	£349,462						
	ONG4	Highways	Four Wantz Roundabout	£189,716	£58,511																			
	EPP7	Highways	Minor widening of the Wake Arms roundabout to better allow left hand exit from A121 to Epping Road B1393																					
	NWB4	Highways	A414/ Rayley Junction improvement								£30,759	£2,897	£100,414	£3,724	£7,034	£55,172								
	DW5	Highways	M11 Junction 5 upgrades														£188,172	£116,487						





## Appendix D

Infrastructure Delivery Topic  
Paper Addendum: Education  
Apportionment











**Secondary Schools**  
Apportionment - per unit cost (£)

REF	IDP REF	PROJECT	DETAILS	Waltham Abbey						Ongar								Buckhurst Hill			NWB.R1				
				LOU.R14	LOU.R15	LOU.R16	LOU.R18	WAL.R1	WAL.R2	WAL.R3	WAL.R4	WAL.R5	WAL.R6	ONG.R1	ONG.R2	ONG.R3	ONG.R4	ONG.R5	ONG.R6	ONG.R7		ONG.R8	BUCK.R1	BUCK.R2	BUCK.R3
				2029/2030	2023/2024	2022/2023	0	2023/2024	2023/2024	2023/2024	2029/2030	2029/2030	2024/2025	2023/2024	2023/2024	2022/2023	2023/2024	2023/2024	2022/2023	2023/2024		2022/2023	2023/2024	2022/2023	2023/2024
				19	6	18	8	295	315	130	16	53	27	99	135	27	163	107	33	17	9	31	41	15	223
SS1	EHA11	Education [secondary]	New (10ha site) secondary school																						
SS2	LPR5	Education [secondary]	New (10ha site) secondary school																						
SS3	CHG5 / LOU24	Education [secondary]	1FE expansion of secondary schools within Loughton Forecast Planning Group	£113,157		£107,201																£184,625	£244,181		
SS4	EPP22 / WAB31	Education [secondary]	2FE expansion of secondary schools in the Epping / Waltham Abbey Forecast Planning Group					£1,756,913	£1,876,026	£774,233		£315,649	£160,802												£1,328,107
SS5	ONG7	Education [secondary]	Up to 2FE expansion of secondary school places											£589,608	£804,011		£970,769	£637,253	£196,536						





**Secondary Schools**

Apportionment - per unit cost (£)

REF	IDP REF	PROJECT	DETAILS	Wood	Coopersale	Fyfield	High Ongar	Lower Sheering	Sheering			Stapleford Abbotts	Rural Sites	
				THOR.R2	COOP.R1	FYF.R1	HONG.R1	LSHR.R1	SHR.R1	SHR.R2	SHR.R3	STAP.R1	RUR.R1	RUR.R2
				2022/2023	2029/2030	2023/2024	2023/2024	2023/2024	2022/2023	2023/2024	2023/2024	2022/2023	2022/2023	0
				48	6	14	10	14	10	62	12	33	11	30
SS1	EHA11	Education [secondary]	New (10ha site) secondary school							£387,172				
SS2	LPR5	Education [secondary]	New (10ha site) secondary school											
SS3	CHG5 / LOU24	Education [secondary]	1FE expansion of secondary schools within Loughton Forecast Planning Group											
SS4	EPP22 / WAB31	Education [secondary]	2FE expansion of secondary schools in the Epping / Waltham Abbey Forecast Planning Group	£285,871										
SS5	ONG7	Education [secondary]	Up to 2FE expansion of secondary school places									£196,536		£178,669

## Appendix E

### Engagement

## E1 Engagement

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### E1.1 Cross boundary working

Epping Forest District is surrounded by a number of authorities across Essex, Hertfordshire and London. Due to the cross-boundary nature of some infrastructure types, the consideration of neighbouring authorities plays an important role in the IDP process. Neighbouring authorities include:

- Harlow (ECC)
- Uttlesford (ECC)
- Brentwood (ECC)
- Chelmsford (ECC)
- London Borough of Redbridge
- London Borough of Havering
- Broxbourne District (HCC)
- East Hertfordshire District (HCC)

Cross-boundary working has been particularly important in relation to Harlow and Gilston Garden Town. The Garden Town covers strategic sites in and adjacent to Harlow, totalling around 16,000 dwellings. This includes two sites which are wholly within in Epping Forest District (Water Lane Area and Latton Priory) and a further site (East of Harlow) which falls partly within Epping Forest District and partly within Harlow. Together these sites, total 3,900 dwellings within Epping Forest District.

A joined up and collaborative approach is therefore necessary to successfully plan the infrastructure required to support the Garden Town. The Councils have set in place a number of processes and mechanisms to promote joint working, including the production of Strategic Masterplans through the Garden Town Developer Forum. In relation to the IDP specifically, Harlow progressed an IDP in parallel with EFDC and the appointed consultant teams have sought to align IDP methodology and approach as far as possible. The following steps were taken to facilitate joined-up working:

- Meeting notes and information received from key providers and stakeholders were shared between councils / consultant teams where it was considered to have cross-boundary issues;
- Joint meetings were held with both councils / consultant teams present, when considered appropriate;
- Consistent positions were sought from infrastructure providers and other stakeholders, where possible;

- Relevant work undertaken for the Harlow & Gilston Garden Town or across the wider SHMA / FEMA area has been incorporated into the respective IDPs as appropriate;
- Any draft IDP documents were shared between the councils / consultant teams, in order to review whether cross-border issues have been effectively addressed; and
- Agreed approach and wording across the IDP Schedules to help capture cross-boundary schemes consistently, and identify the need for contributions.

A Harlow and Gilston Garden Town IDP was produced and published in April 2019, covering the infrastructure required to support the strategic growth of the Garden Town (across Harlow, Epping Forest District and East Herts) and how it should be apportioned to particular sites.

This provided the opportunity to ensure an early joined up approach to the planning and delivery of infrastructure.

## E1.2 Consultation workshops

To help inform the infrastructure required over the Plan period, a number of workshops took place. These are summarised below in Figure 1.

The workshops provided an opportunity for discussions on:

- Existing infrastructure issues, constraints, shortfalls and deficits;
- The implications of planned growth for infrastructure provision, including discussion on possible future needs and potential locations for future requirements;
- Finance and delivery of infrastructure; and
- The approach to cross-boundary infrastructure delivery.

Figure 1 Summary of workshops undertaken as part of the IDP process

Workshop	Attendees	Date	Purpose
Officer workshop	Officers from Epping Forest District Council, Harlow Council, East Herts District Council and Essex County Council, as well as representatives from Affinity Water and Princess Alexandra Hospital.	2 June 2017	To consider the infrastructure requirements in relation to the proposed strategic site allocations in the Draft Local Plan, and co-ordinate the approach to infrastructure across stakeholders.
Developer Forum (strategic sites) Developer Forum (non-strategic sites)	Land owners, developers, promoters and their agents, along with representatives from ECC Harlow and East Herts	16 June 2017	To consider the specific infrastructure requirements in relation to the proposed site allocations in the Draft Local Plan, and provide site promoters and developers with the opportunity to provide input to the IDP.

Workshop	Attendees	Date	Purpose
Member's Workshop	All District Councillors and representatives from each Town and Parish Council were invited to the workshop.	8th July 2017	To provide an opportunity for members to give feedback on the findings of the IDP to date, and enable members to share their local knowledge on current infrastructure capacity issues around key settlements and areas of planned growth. Where possible, attendees were also encouraged to help to determine what infrastructure is needed, and where it should be provided to support anticipated growth.

The workshops were also used as an opportunity to identify infrastructure interventions needed to support growth, and therefore contribute to the Schedule.

### E1.3 Developer Forum

The Developer Forum meetings for both the Harlow and Gilston Garden Town sites and sites across the District were used to further understand any preliminary work or consultation that had been undertaken by developers, and to seek site promoters' views on the infrastructure required to deliver their respective sites. Representatives from East Herts and ECC also attended.

A pro-forma was issued in advance of the Developer Forum workshop to all attendees, requesting information on the provision of different types of infrastructure associated with development proposals. This included information on any engagement that has been undertaken with providers, any preliminary modelling or capacity work, and sought to capture understanding of interventions likely to be required to deliver sites.

The responses to both sets of pro-formas were analysed and incorporated into the Schedule, where appropriate.

### E1.4 Member's workshop

The purpose of this workshop was to provide an opportunity for Members to give feedback on the findings of the IDP to date, and enable attendees to share their local knowledge on current infrastructure capacity issues around key settlements and areas of planned growth. Where possible, attendees were also encouraged to help to determine what infrastructure is needed, and where it should be provided to support anticipated growth.

A pro-forma was issued to all Parish and Town Councils in advance of the Member's workshop to invite suggestions on the types of infrastructure projects that should feed into the IDP work. The pro-forma provided an opportunity for both attendees, and those unable to make the workshop, to contribute and share local knowledge of infrastructure required to support growth as part of the emerging Plan.

The infrastructure suggestions received from Parish and Town Councils through the proforma responses were compiled into a list, set out below. This list reflects desirable infrastructure interventions to support growth over the Plan period. Where appropriate, these proposals have been reflected in the infrastructure Schedule (Section 4.25) in consultation with EFDC and ECC.

### **Buckhurst Hill**

- The feasibility of a Park and Ride scheme that follows the old line of the train track should be considered to alleviate pressure on the mainline trains, and to provide routes to the strategic sites, and to and from stations.
- Additional car parking to alleviate pressure for spaces at Buckhurst Hill Stations, and to reprovide for spaces lost as a result of development at Queens Road
- Reopening of the disused Epping-Ongar rail branch line
- Investment in bus services to improve coverage and frequency, and to encourage sustainable forms of commuting
- Expansion to Buckhurst Hill Community Primary School, and improved road access, to serve the local population

### **Chigwell**

- Widening of the M11 highway leading into Redbridge. Possible transport intervention identified by Chigwell Parish Council to reduce number of bottlenecks, particularly at peak times.
- Traffic management schemes including the rephasing of the traffic lights at Rolls Park (Buckhurst Hill), Roding Lane (Buckhurst Hill), Limes Avenue/Fencepeice Road/ Hainault Road junction and Manor Road/Chigwell Road junction. Possible transport interventions identified by Chigwell Parish Council to allow the more efficient flow of traffic during periods of peak travel.
- Pedestrian bridge (or sub-surface crossing) under Manor Road and Chigwell Road junction. Possible transport intervention identified by Chigwell Parish Council to provide a more suitable crossing location, particularly for students travelling to West Hatch High School, and to prevent congestion attempting to exit Chigwell towards London.
- Assessment of the viability of providing a park and ride facility to Chigwell and Grange Hill Underground station. Possible transport intervention identified by Chigwell Parish Council to alleviate congestion of roads.
- Chigwell Parish Bus Service. Possible transport intervention identified by Chigwell Parish Council to provide a community service to serve all new housing schemes within Chigwell, and provide access to schools, underground stations and community facilities.
- Provision of a new pavement on Millers Lane. Possible transport intervention identified by Chigwell Parish Council to improve local access and active travel options.

- Widening of the High Road, and improvements to the High Road Junction. Possible transport intervention identified by Chigwell Parish Council to improve local access and support anticipated development.
- New Community Hub at Hainult Road (Chigwell Village). Possible intervention identified by Chigwell Parish Council.
- New Community Hall at Chigwell Row. Possible intervention identified by Chigwell Parish Council.
- Additional health and dental provision to accommodate the needs of the newly arising population.
- Refurbishment of Chigwell Primary School, and possible new school provision on the Girl Guides site in Chigwell Row.

### **Ongar**

- Major road improvements to support the increase in traffic as a result of developments throughout Ongar. These include road widening, straightening, dualling, and a bypass on the following roads:
  - A and B class roads through Ongar.
  - A414 Harlow to Chelmsford
  - A128 Ongar to Brentwood and beyond
  - A113 Ongar to Romford
  - B184 Ongar to Great Dunmow
- Additional and more frequent bus services from Ongar to larger towns, including an integrated bus service system between Ongar and neighbouring employment centres.
- Sports facilities upgrades, and provision of additional facilities, at Ongar Leisure Centre. These would include additional land and club house facilities, changing rooms and showers, the co-location of shared space with additional youth activities, and extended opening hours.
- Additional land required to expand Jubilee Park to meet existing and future demand. The existing clubhouse is outdated and requires upgrading to be fit for purpose.
- Additional children's play areas to be provided as part of developments, and the expansion of existing play areas at Greensted Road, Shelley, High Street and Elizabeth II recreation field.
- Additional GPs and support staff (community nursing, mental health care) and dentist provision
- Flood defences

### **Epping**

- A new access road behind Ivy Chimneys Road, Bridge Hill and Brook Road.
- An additional lane at Bell Common traffic lights.
- Installation of real-time road signage at suitable locations, and improvements to directional signage elsewhere.



- Measures to ease traffic flows on Brook Road/ Bridge Hill.
- Junction improvements to enable South Epping development at Bower Hill/ Brook Road and improved pedestrian routes along Centre Drive/ Bride Hill into the town centre.
- New road to serve the South Epping development from B1393 / Ivy Chimneys Road/ Theydon Road eastwards (beside route of M25), including a new tunnel beneath the railway.
- Junction improvements to enable South Epping development at Ivy Chimneys Road/ Theydon Road including enhanced resident parking serving Ivy Chimneys Road.
- Improved bus facilities at Epping Station.
- New signage and directions towards the M25/ M11 to help ease traffic flows.
- Installation of electric charging points at Epping Station, and the car parks at Cottis Lane and Bakers Lane.
- Explore pedestrian priority areas in the side roads connecting High Road and Hemnall Street, and traffic calming measures in Kendall Avenue.
- Greenway footpath connections from Epping town centre in north across Epping Plain into the Lower Forest, and south connecting Hemnall Street and Bell Common.
- Greenway connections plus improved footpaths and cycleways connecting the developments at St Margaret's and South Epping with the town centre.
- Improvements to cycle routes to facilitate the ease of cycling across the Parish.
- Improvements to the Junction of B1393 (top of Palmers Hill) and B181 (The Plain) exploring the options of widening B181 to allow for a separate lane of traffic queuing to turn right towards Harlow and a mini roundabout to assist traffic flows.
- Junction intervention (either traffic lights or a roundabout) at the Merry Fiddlers junction at Fiddlers Hamlet. Junction interventions to provide for a safer road network.
- Additional car parking spaces to replace those lost as result of development at Cottis Lane Car Park (EPP.R6). Potential site yet to be identified. Re-provision of the public toilet currently at Cottis Lane Car Park which would be lost as a result of the development plans.
- Additional car parking spaces to replace those lost as result of development at Bakers Lane Car Park (EPP.R7). Potential site yet to be identified.
- Additional car parking spaces to support development at Epping Sanitary Steam and Laundry Company (EPP.R9). Potential site yet to be identified.
- Additional car parking (including provision of underground car parking) and improved access to Epping Station. Car parking at Epping Station is already reported to be at capacity. Extension of oyster payments to stations in Harlow to deter people driving to Epping to connect to the tube network.

- Improved traffic management on B181 to exclude traffic through Epping Green village and use alternative routes. Traffic management schemes to alleviate pressure on the roads surrounding Epping Upland Parish, where there is limited options for widening or increasing the carriageway.
- Improved traffic management or provision of an alternative route away from Rye Hill Road which is narrow and compounded by vehicle numbers.
- Additional car parking in Epping Green, particularly around Epping Upland CofE School and to support community and leisure visits.
- Provision of continuous bus service and dedicated school bus.
- Children's Day nurseries for under five year olds as part of the South Epping and St John's development. Additional early year's facilities identified by Epping Town Council to support development.
- Landscaped green corridor with integrated cycle and walking routes. Landscaped areas to maintain some of the existing high quality open space, protect levels of biodiversity, and improve sustainable access to sites.
- Additional green space to re-provide that lost as a result of redevelopment. Landscaped areas to provide high quality open space, protect levels of biodiversity, and improve sustainable access to sites.
- Recreation for young teenagers, improvement and expansion to the skateboard area and pavilion at Stonards Hill.
- Improvements to play and recreational facilities at Swaines Green.
- Sports facilities to replace those lost at Epping Sports Centre (EPP.R5) to avoid any net loss.
- Provision of some core hospital facilities such as a walk-in centre at St Margaret's Hospital site to provide some local health facilities particularly to those less mobile.
- The provision of an additional health hub for Epping, comprising GP and community nursing care services, to be in place before the loss of the St Margaret's hospital.
- Provision of multipurpose venues for community groups/ arts performances / sports classes to replace Epping Hall
- Comprehensive broadband coverage, particularly in rural areas where provision is currently limited.
- Provision of a visitor centre to support the visitor economy.

### **North Weald Bassett**

- Improved bus services and frequency, particularly to Epping town centre.
- Off-road cycling routes in rural parts of North Weald Bassett, linking to neighbouring towns.
- The provision of real-time information technology at bus stops throughout the area to enable residents to manage their travel arrangements.

- Major road improvements at Plain Junction to alleviate pressure between Epping and North Weald, and support growth at North Weald, Thornwood and South of Harlow.
- Provision of additional lorry parking spaces to deter lorries from parking in laybys, and along Merlin Way in North Weald Bassett.
- Road interventions around Church Lane, as the road is narrow and regularly used as a rat-run. Development is likely to compound this so transport mitigations to address this should be considered.
- Provision of a community hub, including library space and an office for North Weald Parish Council. Site yet to be identified.
- Provision of sufficient new school places to accommodate the needs of the new population.
- Provision of sufficient new health provision as part of any new development to accommodate the needs of the new population.

### **Roydon**

- Traffic management schemes on A414 to avoid congestion and deter drivers from using Roydon village as a cut through.
- Provision of adequate new parking as integrated part of any new development. Possible transport intervention identified by Roydon Parish Council to improve sustainable provision of parking.
- Bus service connecting Sumners/St Katherines development to Roydon and Epping. Possible transport intervention identified by Roydon Parish Council to improve sustainable transport mode share and connectivity.
- New footpath on Epping Road. Possible transport intervention identified by Roydon Parish Council to improve accessibility for pedestrians, including less mobile residents (including wheel car and buggy users).
- Improved rail services at Harlow, including more frequent services and additional car parking (to mitigate impacts for users at Roydon where opportunities are constrained).
- Additional GP and pharmaceutical provision to meet the demands of the additional populations from the new developments.
- Additional education provision to meet the demands arising from new developments.
- Additional open space provision as part of the masterplan for any new development. Additional open space provision to meet the demands arising from new developments.

### **Theydon Bois**

- Provision of an outdoor activity area for the youth sector. Site yet to be identified.

- Additional sports facilities/playing fields within new developments. Particular need for an outdoor bowling green and provision for older residents to encourage active engagement.
- Retention of doctor's surgery in Poplar Row.
- Provision of a dental surgery to accommodate the facility lost as a result of proposed development.
- New sheltered housing and/or retirement bungalows to provide alternative accommodation for the over 65's and retired members of the community.
- Renovation of the existing Children's Play Area in Poplar Row. Identified need by Theydon Bois District Council.
- Traffic safety measures including speed cameras and traffic congestion control measures at the entrance of the village - on approach from Abridge Road and the junction of Coppice Row and Piercing Hill. Identified need by Theydon Bois District Council. Transport modelling shows that the junction is predicted to exceed capacity at peak times by the end of the Plan period.
- Improvements to local bus services (including increased frequency of the current 418 bus service) to connect Theydon Bois to Epping, Harlow, and to Romford Shopping Centre. Possible transport intervention identified by Theydon Bois District Council to improve sustainable transport mode share and connectivity.
- Improvements to the electricity supply to support new communities and to minimise the number of reported power cuts in residential areas.
- Additional pre-school places. Previous planning application was granted within the grounds of Theydon Bois primary school but was never implemented (this permission would have allowed pre-school, infant and primary children to be catered for on one site).
- Additional FE provision and replacement of portacabins by permanent buildings or an extension to the existing main building.

## Appendix F

### Masterplan Areas Apportionment

South Epping MPA

Ref	Infrastructure Type	Intervention	Total Cost	Cost for MPA	Rationale for Apportionment	2021-2026	2026-2031	2031-2033	Cost for EPP.R1	Cost for EPP.R2	Rationale for Apportionment
EPP3	Transport - Highways	Upgrade to the B1393 High Street / Station Road Roundabout / St John's Road Roundabout	£2,000,000	£387,764	Highways apportionment - see Appendix C	£0	£387,764	£0	£193,882	£193,882	Highways apportionment - see Appendix C
EPP4	Transport - Highways	Improvements to the B1393 Epping Road/ Theydon Road Signalised Junction	£1,000,000	£1,000,000	Highways apportionment - see Appendix C	£0	£1,000,000	£0	£500,000	£500,000	Highways apportionment - see Appendix C
EPP5	Transport - Highways	Improvements to the B1393 High Road/ Bury Lane Roundabout (Bells Common)	£1,000,000	£193,882	Highways apportionment - see Appendix C	£0	£193,882	£0	£96,941	£96,941	Highways apportionment - see Appendix C
EPP6	Transport - Highways	Thornwood Road Signals, Epping - Basic Scheme	£1,000,000	£193,882	Highways apportionment - see Appendix C	£0	£193,882	£0	£96,941	£96,941	Highways apportionment - see Appendix C
EPP7	Transport - Highways	Minor widening of the Wake Arms roundabout to better allow left hand exit from A121 to Epping Road B1393	Unknown								
THB3	Transport - Highways	B172 Coppice Road / Piercing Hill Signalised Junction	£1,000,000	£516,648	Highways apportionment - see Appendix C	£0	£516,648	£0	£258,324	£258,324	Highways apportionment - see Appendix C
EPP8- EPP19	Transport - Active Transport	Cycle interventions	Unknown								
DW8	Transport - Public Transport	Explore the potential and viability of new bus services and increased frequency of existing bus services to connect key settlements	Unknown								
DW9	Transport - Public Transport	Installation of Real Time Travel Information at train stations and bus stops across the District	£500,000	£26,725	Apportioned proportionately by number of units - more detailed work on schemes may result in a different apportionment	£0	£16,035	£10,690	£13,363	£13,363	Apportioned proportionately by number of units across the MPA sites
EPP20	Education	71 early years places to meet the needs of new residents	£1,084,018	£687,054	Apportioned proportionately by number of units in Epping	£0	£412,232	£274,821	£343,527	£343,527	Apportioned proportionately by number of units across the MPA sites
EPP21	Education	New (2.1ha site) primary school, including early years provision (which could be accommodated through the relocation of Ivy Chimneys Primary School)	£8,633,360	£2,311,764	Education apportionment - see Appendix D	£0	£2,311,764	£0	£1,155,882	£1,155,882	Education apportionment - see Appendix D
EPP22	Education	2FE expansion of secondary schools in the Epping / Waltham Abbey Forecast Planning Group	£9,985,500	£2,680,037	Education apportionment - see Appendix D	£0	£2,680,037	£0	£1,340,018	£1,340,018	Education apportionment - see Appendix D
EPP23	Health	580 sqm additional GP floorspace across the Epping, Ongar & Abridge Neighbourhood Area - including appropriate provision within Epping and exploring the potential for a new health hub as part of South Epping Masterplan Area to include an integrated GP surgery, pharmacy and any other necessary health services.	£1,967,360	£370,423	Apportioned proportionately by number of units in the Neighbourhood Area	£0	£222,254	£148,169	£185,212	£185,212	Apportioned proportionately by number of units across the MPA sites
DW13	Open Space and Green Infrastructure	Existing allotment sites to be upgraded to improve facilities and entrances	Unknown								
DW16	Open Space and Green Infrastructure	Improvement of existing amenity open spaces to increase their functionality and experience	Unknown								
DW18	Open Space and Green Infrastructure	Wildflower verges to district roads	Unknown								
DW19	Open Space and Green Infrastructure	Wide-scale tree planting	Unknown								
DW20	Open Space and Green Infrastructure	Art curation	Unknown								
DW21 / EPP30 / EPP31	Open Space and Green Infrastructure	Contributions towards air quality monitoring, Suitable Alternative Natural Greenspace (SANG) and Strategic Access Management and Monitoring (SAMMS)	Unknown								
EPP32	Community Facilities	Approx. 295 sqm of additional community facilities space to meet the needs of new residents	£716,555	£454,155	Apportioned proportionately by number of units in Epping	£0	£272,493	£181,662	£227,077	£227,077	Apportioned proportionately by number of units across the MPA sites
EPP33	Sports and Leisure	New non-turf cricket pitch at Epping Foresters Cricket Club	Unknown								
EPP34	Sports and Leisure	Increase access to a WR22 3G artificial grass pitch, either on the existing site of Epping Upper Clapton RFC or within an appropriate travel time	£1,320,000	£836,620	Apportioned proportionately by number of units in Epping. Funding from additional sources would reduce the overall contribution.	£0	£0	£836,620	£418,310	£418,310	Apportioned proportionately by number of units across the MPA sites
<b>£9,658,953 Total</b>						<b>£0</b>	<b>£8,206,991</b>	<b>£1,451,962</b>	<b>£4,829,477</b>	<b>£4,829,477</b>	
									<b>225</b>	<b>225</b>	
									<b>£21,464</b>	<b>£21,464</b>	

North Weald Bassett

Ref	Infrastructure Type	Intervention	Total Cost	Cost for MPA	Rationale for Apportionment	2021-2026	2026-2031	2031-2033	Cost for NWB.R1	Cost for NWB.R2	Cost for NWB.R3	Cost for NWB.R4	Cost for NWB.R5	Rationale for Apportionment
NWB3	Transport - Highways	Improvements to Talbot PH Roundabout, A414/Vicarage Lane junction	£2,000,000	£1,042,701	Highways apportionment - see Appendix C	£1,042,701			£221,450	£20,854	£722,939	£26,812	£50,645	Highways apportionment - see Appendix C
NWB4	Transport - Highways	A414/Rayley Junction improvement	£200,000	£144,828	Highways apportionment - see Appendix C		£144,828		£30,759	£2,897	£100,414	£3,724	£7,034	Highways apportionment - see Appendix C
EPP3	Transport - Highways	Upgrade to the B1393 High Street / Station Road Roundabout / St John's Road Roundabout	£2,000,000	£904,782	Highways apportionment - see Appendix C		£904,782		£192,159	£18,096	£627,316	£23,266	£43,947	Highways apportionment - see Appendix C
EPP5	Transport - Highways	Improvements to the B1393 High Road/ Bury Lane Roundabout (Bells Common)	£1,000,000	£452,391	Highways apportionment - see Appendix C		£452,391		£96,079	£9,048	£313,658	£11,633	£21,973	Highways apportionment - see Appendix C
EPP6	Transport - Highways	Thornwood Road Signals, Epping - Basic Scheme	£1,000,000	£452,391	Highways apportionment - see Appendix C	£452,391			£96,079	£9,048	£313,658	£11,633	£21,973	Highways apportionment - see Appendix C
NWB5	Transport - Public Transport	Improvements to walking and cycling infrastructure, particularly to improve access to rapid transit bus stops	£5,000,000	£5,000,000	Apportioned proportionately by number of units in North Weald Bassett. Funding from additional sources would reduce the overall contribution.	£1,961,905	£2,333,333	£704,762	£1,061,905	£100,000	£3,466,667	£128,571	£242,857	Apportioned proportionately by number of units across the MPA sites
DW8	Transport - Public Transport	Explore the potential and viability of new bus services and increased frequency of existing bus services to connect key settlements	Unknown											
DW9	Transport - Public Transport	Installation of Real Time Travel Information at train stations and bus stops across the District	£500,000	£62,359	Apportioned proportionately by number of units - more detailed work on schemes may result in a different apportionment	£24,468	£29,101	£8,790	£13,244	£1,247	£43,236	£1,604	£3,029	Apportioned proportionately by number of units across the MPA sites
NWB6	Education	102 early years places to meet the needs of new residents	£1,557,321	£1,557,321	Apportioned proportionately by number of units in North Weald Bassett	£611,063	£726,750	£219,508	£330,745	£31,146	£1,079,743	£40,045	£75,641	Apportioned proportionately by number of units across the MPA sites
NWB7	Education	New (2.1ha site) primary school, including early years provision	£8,633,360	£5,394,117	Education apportionment - see Appendix D	£5,394,117			£1,145,608	£107,882	£3,739,921	£138,706	£262,000	Education apportionment - see Appendix D
EPP22	Education	2FE expansion of secondary schools in the Epping / Waltham Abbey Forecast Planning Group	£9,985,500	£6,253,419	Education apportionment - see Appendix D	£6,253,419			£1,328,107	£125,068	£4,335,704	£160,802	£303,738	Education apportionment - see Appendix D
NWB9	Health	580 sqm additional GP floorspace across the Epping, Ongar & Abridge Neighbourhood Area - including appropriate provision within Epping and exploring the potential for a new health hub as part of South Epping Masterplan Area to include an integrated GP surgery, pharmacy and any other necessary health services.	£1,967,360	£864,321	Apportioned proportionately by number of units in the Neighbourhood Area	£339,143	£403,350	£121,828	£183,565	£17,286	£599,263	£22,225	£41,981	Apportioned proportionately by number of units across the MPA sites
NWB14	Open Space and Green Infrastructure	Potential upgrading of the LAP at School Green Lane in North Weald Bassett	Unknown											
NWB16	Open Space and Green Infrastructure	Site-specific green infrastructure interventions	Unknown											
DW13	Open Space and Green Infrastructure	Existing allotment sites to be upgraded to improve facilities and entrances	Unknown											
DW16	Open Space and Green Infrastructure	Improvement of existing amenity open spaces to increase their functionality and experience	Unknown											
DW18	Open Space and Green Infrastructure	Wildflower verges to district roads	Unknown											
DW19	Open Space and Green Infrastructure	Wide-scale tree planting	Unknown											
DW20	Open Space and Green Infrastructure	Art curation	Unknown											
DW21 / NWB15 / EPP17	Open Space and Green Infrastructure	Contributions towards air quality monitoring, Suitable Alternative Natural Greenspace (SANG) and Strategic Access Management and Monitoring (SAMMS)	Unknown											
NWB18	Community Facilities	Approx. 402 sqm of additional community facilities space to meet the needs of new residents	£976,458	£976,458	Apportioned proportionately by number of units in North Weald Bassett	£383,144	£455,680	£137,634	£207,381	£19,529	£677,011	£25,109	£47,428	Apportioned proportionately by number of units across the MPA sites
			<b>£23,105,089</b>	<b>Total</b>		<b>£16,462,352</b>	<b>£5,450,216</b>	<b>£1,192,522</b>	<b>£4,654,872</b>	<b>£438,351</b>	<b>£15,196,175</b>	<b>£563,594</b>	<b>£1,064,567</b>	
					<b>Total units</b>				<b>223</b>	<b>21</b>	<b>728</b>	<b>27</b>	<b>51</b>	
					<b>Cost per unit</b>				<b>£20,874</b>	<b>£20,874</b>	<b>£20,874</b>	<b>£20,874</b>	<b>£20,874</b>	

Waltham Abbey North MPA

Ref	Infrastructure Type	Intervention	Total Cost	Cost for MPA	Rationale for Apportionment	2021-2026	2026-2031	2031-2033	Cost for WAL.R1	Cost for WAL.R2	Cost for WAL.R3	Rationale for Apportionment
WAB4	Transport - Highways	Upgrades to the A112 Sewardstone Road/ Sun Street signalised junction	£1,000,000	£849,598	Highways apportionment - see Appendix C	£849,598	£0	£0	£338,691	£361,653	£149,254	Highways apportionment - see Appendix C
WAB5	Transport - Highways	Upgrades to the M25 Junction 26 Southern Roundabout	£3,000,000	£0	Highways apportionment - see Appendix C	£0	£0	£0	£0	£0	£0	Highways apportionment - see Appendix C
WAB6	Transport - Highways	Upgrades to the B194 High Bridge Street/ Meridian Way Signalised Junction	£2,000,000	£1,699,196	Highways apportionment - see Appendix C	£0	£1,699,196	£0	£677,382	£723,307	£298,507	Highways apportionment - see Appendix C
WAB7	Transport - Highways	Junction 4 – B194 Highbridge Street / Abbeyview Roundabout, Waltham Abbey	£1,000,000	£849,598	Highways apportionment - see Appendix C	£849,598	£0	£0	£338,691	£361,653	£149,254	Highways apportionment - see Appendix C
WAB8-WAB29	Transport - Active Transport	Cycle interventions	Unknown									
DW8	Transport - Public Transport	Explore the potential and viability of new bus services and increased frequency of existing bus services to connect key settlements	Unknown									
DW9	Transport - Public Transport	Installation of Real Time Travel Information at train stations and bus stops across the District	£500,000	£34,424	Apportioned proportionately by number of units - more detailed work on schemes may result in a different apportionment	£15,119	£19,305	£0	£13,723	£14,653	£6,047	Apportioned proportionately by number of units
WAB29	Education	107 early years places to meet the needs of new residents	£1,633,661	£112,473	Apportioned proportionately by number of units in Waltham Abbey	£49,397	£63,076	£0	£44,837	£47,877	£19,759	Apportioned proportionately by number of units across the MPA sites
WAB30	Education	Expansion of two primary schools within Waltham Abbey Forecast Planning Group to provide at least 1.5FE of additional capacity	£5,439,420	£3,200,969	Education apportionment - see Appendix D	£3,200,969	£0	£0	£1,276,062	£1,362,575	£562,332	Education apportionment - see Appendix D
WAB31	Education	2FE expansion of secondary schools in the Epping / Waltham Abbey Forecast Planning Group	£9,985,500	£4,407,172	Education apportionment - see Appendix D	£4,407,172	£0	£0	£1,756,913	£1,876,026	£774,233	Education apportionment - see Appendix D
WAB32	Health	162 sqm additional GP floorspace across the Waltham Abbey Neighbourhood Area - including appropriate provision within Waltham Abbey	£549,504	£441,512	Apportioned proportionately by number of units in the Neighbourhood Area	£193,907	£247,605	£0	£176,008	£187,941	£77,563	Apportioned proportionately by number of units across the MPA sites
DW13	Open Space and Green Infrastructure	Existing allotment sites to be upgraded to improve facilities and entrances	Unknown									
DW16	Open Space and Green Infrastructure	Improvement of existing amenity open spaces to increase their functionality and experience	Unknown									
DW18	Open Space and Green Infrastructure	Wildflower verges to district roads	Unknown									
DW19	Open Space and Green Infrastructure	Wide-scale tree planting	Unknown									
DW20	Open Space and Green Infrastructure	Art curation	Unknown									
DW21 / WAB39	Open Space and Green Infrastructure	Contributions towards air quality monitoring and Strategic Access Management and Monitoring (SAMMS)	Unknown									
WAB40	Community Facilities	455 sqm of additional community facilities space to meet the needs of new residents	£1,105,195	£978,283	Apportioned proportionately by number of units in Waltham Abbey	£429,651	£548,631	£0	£389,991	£416,431	£171,860	Apportioned proportionately by number of units across the MPA sites
WAB41	Sports and Leisure	Refurbishment of ancillary facility at Capershotts, Waltham Abbey to meet the needs of the home club	Unknown									
WAB42	Sports and Leisure	Extend the capacity of the football facilities in Waltham Abbey through the provision of additional high quality grass pitches and pending the availability of suitable space, explore the development of a second 3G artificial grass pitch	£955,000	£845,335	Apportioned proportionately by number of units in Waltham Abbey. Funding from additional sources would reduce the overall contribution.	£845,335	£0	£0	£336,992	£359,839	£148,505	Apportioned proportionately by number of units across the MPA sites
WAB43	Sports and Leisure	Potential provision of 3G AGP pitches	£955,000	£845,335	Apportioned proportionately by number of units in Waltham Abbey. Funding from additional sources would reduce the overall contribution.	£0	£845,335	£0	£336,992	£359,839	£148,505	Apportioned proportionately by number of units across the MPA sites
<b>£14,263,896 Total</b>						<b>£10,840,746</b>	<b>£3,423,149</b>	<b>£0</b>	<b>£5,686,283</b>	<b>£6,071,793</b>	<b>£2,505,819</b>	
									<b>295</b>	<b>315</b>	<b>130</b>	
									<b>£19,276</b>	<b>£19,276</b>	<b>£19,276</b>	