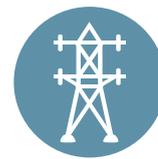




ELECTRIC VEHICLE CHARGING POINTS

PLANNING POLICY TECHNICAL ADVICE NOTE



SEPTEMBER 2021



ELECTRIC VEHICLE CHARGING POINTS

Technical Advice Note

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Executive Summary

In July 2019, Eastbourne Borough Council declared a climate emergency and set the ambition for Eastbourne to be a carbon neutral town by 2030.

Transport is a significant contributor to carbon emissions in Eastbourne, and increasing in the share of vehicles that are Ultra Low Emissions Vehicles (ULEVs) is a step on the way to reducing these emissions.

Increasing the use of ULEVs will require the installation of appropriate infrastructure, such as Electric Vehicle Charging Points (EVCPs), and Eastbourne Borough Council can support this by expecting provision for electric vehicle charging points to be made within new development.

It is anticipated that the new Eastbourne Local Plan, which is currently under preparation, will set out requirements for EVCPs in new development. However in advance of this, an Electric Vehicle Charging Point Technical Advice Note (TAN) has been prepared to encourage applicants to make provision for EVCPs in proposals for new development, and provide guidance and advice on how this infrastructure could be provided.

Proposals for new housing and commercial development will be expected to make provision for EVCPs and meet the criteria set out in this TAN, and planning applications will be expected to include an 'electric vehicle charging scheme' such that it can be determined from the planning application how the development supports the provision of infrastructure.

This is consistent with national planning policy and practice guidance, which itself can be taken into account in the determination of a planning application.

These expectations are derived from and consistent with the approach taken by a number of other local authorities, some of which are evidenced later in this guidance.

Expectations for charging points in new development

Flats	<ul style="list-style-type: none"> • Where flatted development has integrated parking bays (undercroft or parking court); • Provision is made for electric charging points * for each unit with an allocated parking space; and • Non-allocated spaces are provided with at least 25% having electric charging points installed.
Houses	Where houses are provided with a garage or driveway, one EV Charging Unit* per dwelling.
Garages	Where domestic garages are provided, new or replacement, one standard EV Charging Unit per garage**.
Non-residential	<p>Provision should made at the following minimum rates:</p> <ul style="list-style-type: none"> • 1-20 car parking spaces – 0 spaces • 21-50 car parking spaces – 1 space with 1 electric charging point • 51-100 car parking spaces – 2 Spaces with 1 electric charging point <p>1 space with 1 electric charging point per 100 car parking spaces thereafter</p> <p>All are to be provided with a Fast EV Charging Unit***.</p>

** Minimum requirement: 16 Amp socket located either in a garage or in close proximity to a dedicated car parking place. In the absence of a garage, a wall mounted external socket would be expected.*

*** Minimum requirement: 16 Amp socket located inside the unit.*

**** Minimum requirement; 32 Amp socket. Commercial standalone charging units provide 2 chargers, meaning 100 spaces requires 1 standalone unit.*

In addition to the above 30% of all parking provision should have ‘passive provision’ to allow conversion at a later date.

I. Introduction

- 1.1 On 10th July 2019, Eastbourne Borough Council declared a climate change emergency and committed to continue working in close partnership with local groups and stakeholders to deliver a carbon neutral town by 2030.
- 1.2 Transport is a significant contributor to carbon emissions. Currently, the vast majority of vehicles in use on the roads of Eastbourne run on petrol or diesel, and the emissions that these fuels produce are known to impact on the environment and human health.
- 1.3 To achieve a carbon neutral town, the issue of carbon emissions from transport will need to be addressed, and in order to do this, Eastbourne Borough Council is seeking to encourage a higher proportion of vehicles to be Ultra Low Emissions Vehicles (ULEVs).
- 1.4 The take-up of ULEVs, particularly electric cars, will depend on the availability of infrastructure to service them. Therefore the provision of electric vehicle charging points in new development should help to increase the number of electric vehicles being used in Eastbourne.
- 1.5 Planning policy can assist with this by setting requirements for new development to make provision for Electric Vehicle Charging Points (EVCPs). It is anticipated that such policies will be included within the new Eastbourne Local Plan, which is currently being prepared.
- 1.6 In advance of the new Eastbourne Local Plan, this Technical Advice Note (TAN) has been prepared to encourage applicants to make provision for EVCPs in proposals for new development, and provide guidance and advice on how this infrastructure could be provided. It also provides a summary of existing technologies and the current situation in the UK, using case studies and examples of best practice.
- 1.7 As such, this TAN represents the starting point of the council's journey to formulating policy surrounding the provision of EVCP infrastructure in new development, until more detailed evidence can be gathered and planning policy can be development in the new local plan.

2. Background

- 2.1 Transport is a significant contributor to carbon emissions in Eastbourne, and whilst emissions from commercial and domestic energy have fallen significantly since 2005, carbon emissions from transport have remained at the same level.
- 2.2 In 2017, as a way of significantly reducing emissions and improving air quality, the UK government announced their intention to end the sale of conventional petrol and diesel cars and vans by 2040. In 2020, this deadline was shortened to 2030 to accelerate the transition to electric vehicles.
- 2.3 These targets have started to increase take-up of ULEV technologies, however there are challenges associated with bringing to market technologies that are accepted by the consumer and affordable. One of these challenges is the provision of the necessary infrastructure to support the change.
- 2.4 Following Eastbourne Borough Council's climate emergency declaration in 2019, a Climate Emergency Strategy was published in 2020, which identifies that one of the most important steps to reducing transport emissions in Eastbourne is the transition to electric vehicles.
- 2.5 Further, the Eastbourne Corporate Plan 2020-2024 identifies that achieving ambitions for a low carbon place can be assisted by the provision of electric vehicle charging points throughout the Borough, which should enable greater take-up of ULEVs.
- 2.6 It is recognised that ULEVs are not the answer to carbon neutrality on their own – reducing the need to travel and switching trips to walking, cycling and public transport will also play a significant role in this. However, it is accepted that a certain amount of car use is likely to be necessary, especially where people have mobility problems, but as much car use as possible should be through ultra-low emission cars.
- 2.7 In addition to reducing carbon emissions, another benefit of ULEVs is their ability to reduce, although not eliminate, air pollutants that impact on human health.

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- 2.8 Evidence collated by Defra, Public Health England and the Local Government Association¹ indicates that even short-term exposure to high levels of air pollution can induce a range of adverse health effects. The health implications include the exacerbation of pre-existing conditions such as asthma. The World Health Organisation (WHO) state that long-term exposure to air pollution can reduce life expectancy due to its negative impact on lung, heart and respiratory conditions. Additionally, the Royal College of Physicians has found emerging links between high levels of air pollution and a range of adverse health effects including dementia, diabetes and effects on the unborn child². In addition to negatively affecting human health, air quality also impacts the environment and climate.
- 2.9 One of the ways that Eastbourne Borough Council can support ULEVs is by expecting new development to make provision for charging points.
- 2.10 The majority of vehicle charging will occur overnight in a residential setting; however this will likely need to be supported by 'top up' charges during the day.
- 2.11 Consequently, it is requested that proposals for new housing and commercial developments make provision for EVCPs, as set out in this TAN. Planning applications are requested to include an 'electric vehicle charging scheme' such that it can be determined how the development supports the provision of infrastructure necessary to fulfil not only the council's vision, but the governments drive to shift to lower polluting technologies.
- 2.12 The expectations set out in this document would ensure that the Borough reduces locally contributing causes of climate change and shows the authority is being pro-active regarding climate change initiatives. It will also promote a sustainable system of transport and encourage developers to provide the new and upgraded infrastructure that is required to create and support sustainable communities.

¹ [DEFRA - Air Quality: A Briefing for Directors of Public Health, March 2017](#)

² [Royal College of Physicians 'Every breath we take the lifelong impact of air pollution' \(2016\)](#)

3. Facts and Figures

- 3.1 A total of 23,340 tonnes of fuel was consumed by road transport in the Eastbourne Borough in 2018³, with personal transport accounting for 79% and freight transport accounting for 21% of this total. There was a gradual decline in the total tonnage of fuel used by road transport in the Borough between 2005 and 2018, with personal road transport gradually falling but freight road transport remaining relatively consistent.
- 3.2 In 2018, 293 kilotonnes (kt) of carbon dioxide (CO₂) was emitted in Eastbourne⁴; of which, 78 kt (27%) came from transportation. Whilst overall carbon emissions have fallen significantly since 2005, carbon emissions from transport have been relatively steady. This may have been impacted by an increase in the number of cars in the town – the number of cars registered in Eastbourne increased by over 5,300 between 2009 and 2019⁵.

Figure 1 - Total Registered Cars compared to Number of Registered ULEVs (2019)

Local Authority	Total Registered Cars	Number of Registered ULEVs	% ULEVS
Eastbourne	47,062	178	0.38
Lewes	50,772	375	0.74
Hastings	39,288	141	0.36
Rother	53,273	359	0.67
Wealden	97,858	715	0.73
South East	5,248,508	54,833	1.04
England	27,146,121	240,244	0.89

- 3.3 The take-up of ULEVs in Eastbourne has been slow. As of 2019, there were a total of 178 ULEVs registered in Eastbourne⁶, representing 0.38% of the total cars registered in the Borough – the second lowest of any local

³ Department of Energy & Climate Change (DECC) Road transport energy consumption

⁴ Department for Business, Energy & Industrial Strategy, UK local authority and regional carbon dioxide emission national statistics

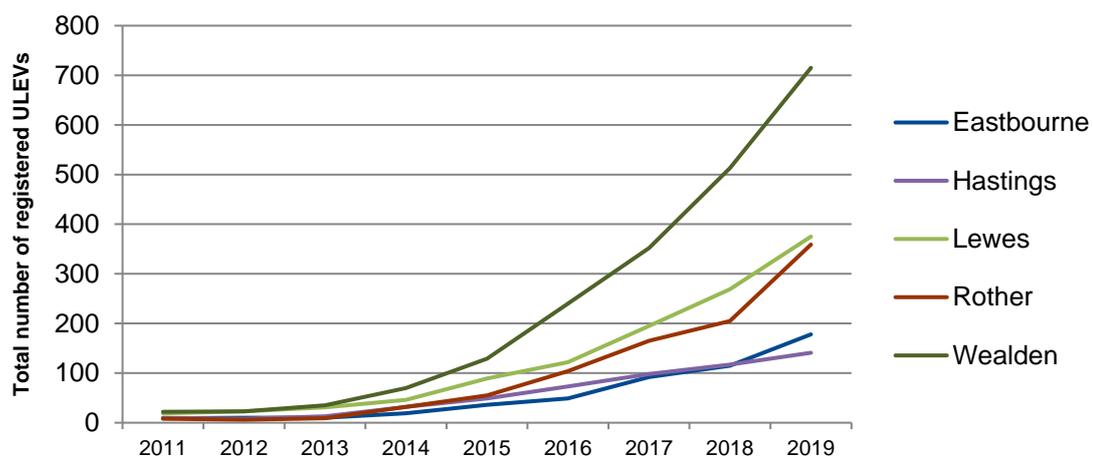
⁵ Department for Transport (DfT), Vehicle Licensing Statistics series: veh105

⁶ East Sussex in Figures, Ultra –low emission vehicles 2011-2019

authority in East Sussex (see [Figure 1](#)). It is also lower than the regional and national average of 1.04% and 0.89% respectively.

- 3.4 Whilst the take-up rate of ULEVs in Eastbourne has increased from 9 ULEVs in 2009 to 178 ULEVs in 2019, others parts of East Sussex have seen much more significant increases ([Figure 2](#)).

Figure 2 - Change in number of registered ULEVs by Local Authority in East Sussex



- 3.5 As at January 2021, Department for Transport statistics⁷ reported that there were 33 publicly available electric vehicle charging devices in Eastbourne, with 31.8 charging devices per 100,000 population. Eastbourne's rate of publicly available provision per population is the highest in East Sussex, but equivalent to the regional and national averages.
- 3.6 A survey on electric vehicle charging point infrastructure undertaken jointly by the five district and borough local authorities of East Sussex⁸ indicates that lack of public charging infrastructure is a significant barrier for people considering the purchase of an electric vehicle.
- 3.7 However, 81% of respondents to the survey who already owned an electric vehicle had a dedicated charger installed, and 77% of all respondents to the survey would be willing to have a dedicated home charger installed at their property. Of those who weren't able / willing to have a dedicated home charger installed, a large number cited difficulties with their parking location due to proximity or communal / off-road parking.

⁷ Department for Transport (Dft), Publicly available electric vehicle charging devices by local authority: evcd_01

⁸ [East Sussex Electric Vehicle Charge Point Infrastructure Results Report](#)

4. Planning Policy Context

- 4.1 The National Planning Policy Framework (NPPF) encourages the provision of EVCPs in development. Paragraph 110 states that ‘applications for development should *‘be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations’*’.
- 4.2 It is also stated in paragraph 179 of the Framework that *‘Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas’*.
- 4.3 Planning Practice Guidance (PPG) indicates that potential reductions in vehicle-related emissions through the provision of electric vehicle charging infrastructure is a consideration that may be relevant to determining a planning application, and infrastructure to promote modes of transport with a low impact on air quality (such as electric vehicle charging points) can help to mitigate impacts of development on air quality⁹.
- 4.4 East Sussex County Council’s Guidance for Parking at New Residential Development (2017)¹⁰ outlines the amount and type of parking that should be provided within new residential development. It encourages developers to include EVCPs at all properties with off-street parking. It also encourages consideration for EVCPs for other parking areas.
- 4.5 The provision of EVCPs in development would be supported by policies set in the Eastbourne Core Strategy Local Plan 2006-2027¹¹. Although the situation with regards to ULEVs have developed significantly since the Core Strategy was adopted in 2013, policies do seek to adapt to climate change and reducing potential negative environmental impacts, and promote more sustainable forms of travel. The promotion of ULEVs through the provision of EVCPs is considered to contribute towards this.

⁹ [Planning Practice Guidance – Air Quality](#)

¹⁰ [East Sussex County Council - Guidance for Parking at New Residential Development](#)

¹¹ [Eastbourne Core Strategy Local Plan 2006-2027](#)

5. Current situation in the UK

Available Technology

- 5.1 ULEV technologies are constantly developing and improving due to high levels of investment from the automotive and other industries. As a result of this investment the capability of chargers and batteries are expected to significantly improve over the coming years.
- 5.2 Fuel Cell Electric Vehicles (FCEVs) or hydrogen powered vehicles are gaining traction within the freight industry, but from a personal car travel standpoint, predictions are that battery electric vehicles (BEVs) will continue to dominate the ULEV scene. As such, FCEVs will not be considered in this TAN, but EBC will monitor development of the technology, in particular relation to its use within freight transport.
- 5.3 There are currently three main types of electrical vehicle charging:
- **Rapid** (43, 50 or 120kW) – are the fastest way to charge an EV, and can provide an 80% charge in around 20 minutes. These are typically found at motorway service stations and are more suited for those travelling long distances.
 - **Fast** (7-22kW) – can fully recharge some models in 3-4 hours and are the most common type found at workplaces, shopping centres and leisure destinations where cars are parked for an hour or more.
 - **Slow** (up to 3kW) – can be used for longer charge times approx. 6-12 hours and are usually installed at residential properties for overnight charging.
- 5.4 Currently the number of people using electrical vehicles is far outweighed by the number using petrol or diesel vehicles; however, the UK are already a leader in Europe in terms of electric vehicle manufacture and uptake. In their 2017 Air Quality Plan Defra states that the UK had the highest sales of battery electric and plug-in hybrid vehicles in the European Union. The uptake of electric vehicles is likely to increase in the coming years due to improvements in technology and increased affordability. This is supported by the £2.7 billion the UK government has committed to investing in air quality and cleaner transport. Included in this is nearly £100 million which will be invested



in the UK's charging infrastructure and funding the Plug-In Car and Plug-In Van Grant Schemes.

- 5.5 The Government wants to see the majority of charging occur at home, overnight, to avoid occurring during peak electricity demand. Whilst home recharging can be supported by workplace recharging, electric vehicles are expected to predominantly be charged residentially.

Approach of other Local Planning Authorities

London

- 5.6 The OLEV 'Go Ultra Low City Scheme' (GULCS) scheme has resulted in funding for four exemplar cities to develop innovative EV policies and schemes. London is one of these cities and is also one of the leading European cities for ULEVs.
- 5.7 The London Plan 2021 requires that residential, retail and employment developments should provide EVCPs, including passive provision as well as active spaces. Active spaces must have fully wired and connected charging points and be ready to use on completion of the development. Passive provision requires the necessary underlying infrastructure for example capacity in the connection to the local electricity distribution network and electricity distribution board, as well as cabling to parking spaces to be in place. This enables simple installation and activation of a charge point at a future date, thus future proofing developments.
- 5.8 The London Plan 2021 further requires that where parking is provided in new developments, all operational parking must provide infrastructure for electric or other ULEVs, and that the provision of hydrogen refuelling stations and rapid ECVPs at logistics and industrial locations would be supported.
- 5.9 The Greater London Authority's Land for Industry and Transport SPG sets out the 'Typical Charge Points Technical Standards'¹² and these are shown in [Figure 3](#).

¹² [Greater London Authority - Land for Industry and Transport – SPG 2012 Annex 6](#)

Figure 3 - Charge Points Technical Standards in London

	Voltage (V)	Current (Amps)	Nominal charge power (kW)	Typical Application
Standard	230 AC	13-16, single phase	3	Residents Parking Employees Parking
Fast	230 AC	32, single phase	7	Retail/ leisure parking Residential & employment visitor parking
Rapid	400 AC and 500-600 DC	32-63A three phase and up to 125 DC	20-50	Specialist applications

Oxford City Council

5.11 In June 2020, Oxford City Council (OCC) adopted their Local Plan, which contained a policy on EVCPs to support the increase in the uptake of electrical vehicles:

Policy M4 Provision of electric charging points requires:

Where additional parking is to be provided, planning permission will only be granted for new residential developments if;

a) Provision is made for electric charging points for each residential unit with an allocated parking space; and

b) Non-allocated spaces are provided with at least 25% (with a minimum of 2) having electric charging points installed.

Planning permission will only be granted for non-residential development that includes parking spaces if a minimum of 25% of the spaces are provided with electric charging points.

Scarborough Borough Council

- 5.12 In July 2017, Scarborough Borough Council (SBC) adopted their Local Plan, which contained a new policy on EVCPs:

Policy DEC 2- Electric Vehicle Charging Points

‘There will be a requirement that every new residential garage and dedicated marked out residential car parking space within the curtilage of the property should include an electrical socket suitable for charging electric vehicles. For non-residential developments providing 100 car parking bays or more, it is required that at least 2% of those bays should provide well managed rapid charging points for electric vehicles, where the local electricity network is technically able to support this. An exemption would be made for residential apartments with communal parking areas’.

- 5.13 SBC state that although a single phase 13 amp three-pin domestic socket is adequate for home charging, a dedicated EV unit should be installed. SBC recognise that it is much easier to set up a dedicated charging unit during construction of a property. The cost of installing an EVCP to an existing dwelling is circa £800, this cost is decreased if the unit is installed as part of the construction process. In their assessment, SBC found that installation of an EVCP is very unlikely to impact the viability of a development scheme.

6. Eastbourne Borough Council Expectations

- 6.1 Delivering an accessible network of EVCPs will play a critical role in facilitating the purchase of electric vehicles. Increasing EVCP provision should ensure residents and businesses have increasing confidence in utilising and purchasing ULEVs as their preferred and most convenient choice of vehicle in Eastbourne. The majority of recharging should take place at home overnight, therefore outside of peak electricity demand. However, home recharging should be supported by workplace recharging and a targeted amount of public infrastructure where it is appropriate...or required?
- 6.2 To support this EV charging concept, planning applications for new housing and commercial developments should include an 'electric vehicle charging scheme' such that it can be determined from the planning application how the development supports the provision of infrastructure.
- 6.3 To avoid conditions requiring submission of further information the 'electric vehicle charging scheme' should outline the following information;
- Specification of the EVCP socket
 - Details of how the electricity to facilitate the charging point is to be sourced, including whether renewable energy sources have been considered;
 - The maintenance and management plan of the parking bays and charging points (specifically for non-residential and unallocated spaces in flatted developments)
 - The size and design features of the parking bays, confirming they meet ESCC standards.
 - The location of the 30% passive provision and how this will be monitored for need and future conversion.
- 6.4 New developments will be expected to meet the criteria set out in [Figure 4](#). In addition, it is expected that 30% of all parking provision should have 'passive provision' such as connection to the local electricity distribution network and electricity distribution board and cabling to parking spaces in place, in order to allow conversion of spaces and installation of EVCPs at a later date.

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- 6.5 These expectations are derived from and consistent with the approach taken by a number of other local authorities. As mentioned throughout this document, this guidance note has been created to encourage EV infrastructure in new development. It is acknowledged that for some development the above expectations may not be feasible due to management requirements, security, or cost of provision for example. If these expectations cannot be met then this should be fully justified in the 'electric vehicle charging scheme' submitted with an application. To avoid delays to applications, it is recommendation that if engaging with a pre-application request with us you submit this document at this stage.
- 6.6 The requirement for EVCP's does not override East Sussex County Council requirements or guidelines in terms of car parking. For guidance on parking at residential and non-residential development please see the ESCC guidance available from their website¹³.

¹³ [East Sussex County Council - Guidance for Parking at New Residential Development](#)

Figure 4 - Expectations for charging points in new development

Flats	<ul style="list-style-type: none"> • Where flatted development has integrated parking bays (undercroft or parking court); • Provision is made for electric charging points * for each unit with an allocated parking space; and • Non-allocated spaces are provided with at least 25% having electric charging points installed.
Houses	Where houses are provided with a garage or driveway, one EV Charging Unit* per dwelling.
Garages	Where domestic garages are provided, new or replacement, one standard EV Charging Unit per garage**.
Non-residential	<p>Provision should made at the following minimum rates:</p> <ul style="list-style-type: none"> • 1-20 car parking spaces – 0 spaces • 21-50 car parking spaces – 1 space with 1 electric charging point • 51-100 car parking spaces – 2 Spaces with 1 electric charging point <p>1 space with 1 electric charging point per 100 car parking spaces thereafter</p> <p>All are to be provided with a Fast EV Charging Unit***.</p>

** Minimum requirement: 16 Amp socket located either in a garage or in close proximity to a dedicated car parking place. In the absence of a garage, a wall mounted external socket would be expected.*

*** Minimum requirement: 16 Amp socket located inside the unit.*

**** Minimum requirement; 32 Amp socket. Commercial standalone charging units provide 2 chargers, meaning 100 spaces requires 1 standalone unit.*

Further Reading

- Automated and Electric Vehicles Bill 2017-19 - House of Commons Library <http://researchbriefings.files.parliament.uk/documents/CBP-8118/CBP-8118.pdf>
- Automated and Electric Vehicles Bill 2017-19 – Explanatory Notes <https://publications.parliament.uk/pa/bills/cbill/2017-2019/0112/en/18112en.pdf>
- Charging Points Statistics, 2018 <https://www.zap-map.com/statistics/>
- Finding Value in the Electric Vehicle Charging System [http://www.ey.com/Publication/vwLUAssets/Finding_value_in_the_electric_vehicle_charging_ecosystem_pdf/\\$File/Beyond%20the%20plug%20-%20Finding%20value%20in%20the%20electric%20vehicle%20charging%20ecosystem.pdf](http://www.ey.com/Publication/vwLUAssets/Finding_value_in_the_electric_vehicle_charging_ecosystem_pdf/$File/Beyond%20the%20plug%20-%20Finding%20value%20in%20the%20electric%20vehicle%20charging%20ecosystem.pdf)
- Full list of Electric Vehicle Home charge Scheme approved charge point model list, 2017 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/655120/evhs-approved-chargepoint-model-list.csv.csv/preview
- Land for Industry and Transport – SPG 2012. Annex 6: <https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/supplementary-planning-guidance/land-industry-and>
- Learn about plug-less charging <https://www.pluglesspower.com/learn-about-plugless/>
- East Sussex Electric Vehicle Charge Point Infrastructure Results Report <https://www.lewes-eastbourne.gov.uk/resources/assets/inline/full/0/280166.pdf>
- Eastbourne Local Plan, Joint Core Strategy, 2013 <http://www.lewes-eastbourne.gov.uk/planning-policy/lewes-core-strategy-local-plan-part-1/>
- National Planning Policy Framework (NPPF), 2019 <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- East Sussex County Council, Guidance for Parking at new residential development, <https://www.eastsussex.gov.uk/media/9311/escs-guidance-for-parking-at-residential-developments.pdf>
- The London Plan 2021 https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf

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- The Oxford Local Plan 2016-2036
https://www.oxford.gov.uk/info/20067/planning_policy/1311/oxford_local_plan_2016-2036
 - The Scarborough Borough Local Plan 2011-32
<https://www.scarborough.gov.uk/home/planning/planning-policy/local-plan/current-local-plan>