

Electric Vehicle Charging

Technical Guidance for New Development
Supplementary Planning Document (SPD)

DRAFT
(June 2022)

A great place to live and work.

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1. Introduction

- 1.1 This Supplementary Planning Document sets out the Council's position on the provision of Electric Vehicle Charging Points (EVCP) in new developments and will be used to provide guidance for applicants and decision makers as to the appropriate amount of EVCP necessary to support new development. It supports Local Plan policy T5, as well as the Council's Vision and the aims of the Council's Sustainability Plan. Central Bedfordshire Council supports the uptake of electric vehicles, as a more environmentally friendly alternative to petrol or diesel.
- 1.2 The increased uptake of Electric Vehicles (EV) or Ultra Low Emission Vehicles (ULEVs) is a key part of the government's roadmap to zero carbon by 2050. ULEVs are defined as having less than 75 grams of CO₂ per kilometre (g/km) from the tail pipe. Pure electric vehicles, and other plug-in electric vehicles when driving in the electric mode, produce no tailpipe CO₂ or pollution, are cheaper to run than conventional vehicles.
- 1.3 The Government's Net Zero Strategy recognises that addressing the damaging role that transport plays in contributing to climate change will create better places for people to live and work in. Creating quieter and less polluted streets will lead to improvements in the health and wellbeing of the nation. The use of electric vehicles is one measure for reducing emissions locally and ownership of electric vehicles is growing, therefore the provision of the necessary infrastructure is essential.
- 1.4 Low emissions vehicles and associated charging infrastructure is an area where technology, standards and best practice are rapidly evolving, therefore it is important that new development seeks to encourage continued growth and respond to such change. As a result of changing technology, this document does not specify exact technological requirements but provides guidance in terms of what is currently available. If necessary, it will be updated to take account of any significant changes.
- 1.5 This document is set out in seven parts.
1. The introduction provides an overview and background to the document.
 2. Outlining the relevant legislative framework, national, regional and local policies and practices, and key objectives.
 3. Sets out the context in relation to Central Bedfordshire.
 4. Details on EVCP technologies.
 5. Electric vehicle charging requirements in Central Bedfordshire.
 6. Guidance details for completion of planning applications.
 7. Future reviews of the document.

Appendices

1. EVCP technology, design layout and management
2. Planning conditions
3. Planning checklist
4. Electric vehicle charge point management plan

2. Policy Context

National Policy

- 2.1 In 2020, the Government announced the end of the sale of new petrol and diesel cars and vans in the UK by 2035, with a 2-phased approach to the process. Phase 1 will be the phase-out for the sale of new petrol and diesel cars and vans by 2030. Phase 2 will require all new cars and vans be fully zero emission at the tailpipe from 2035. The roll out of charging infrastructure will be critical in supporting these aims.
- 2.2 The requirement for the provision of electric vehicle charging points in new development (both new build and changes of use) is set out in the [National Planning Policy Framework](#) 2021.
- Paragraph 110, bullet (a) requires appropriate opportunities to promote sustainable transport modes, given the type of development and its location; and
 - Paragraph 112, bullet (e) requires new development to be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.
- 2.3 In January 2022 the Government adopted amendments to [Building Regulations, to set out the need for new development to include EV provision](#). The amendments in Part S of Schedule 1 to the Building Regulations 2010 take effect on 15 June 2022 for use in England. Whilst most of the requirements of these Building Regulations are reflected in the advice in this document, additional guidance is provided on the requirements by development type.

Local Policy

- 2.4 The [Council's Vision](#) is for Central Bedfordshire to be a great place to live and work. The Vision acknowledges that the rural nature of Central Bedfordshire means that alternatives to the private cars are constrained in many locations; therefore, implementing an electric vehicle charging network that will help to ensure the transition to EVs happens smoothly, reducing the carbon impact of travel choices in Central Bedfordshire.
- 2.5 The Council's [Sustainability Plan](#) focuses on how the Council can improve its own operations and processes, for example in buildings it is responsible for, facilitating investments in infrastructure-led projects; and influencing, supporting and enabling residents and local businesses to adopt sustainable behaviours and practices.
- 2.6 One of the objectives is to enable a network of electric vehicle charging points working with partners and energy providers, as well as investing in charging points across its own assets and highways. To support this objective, the Council has approved an [Electric Vehicle Charge Point Plan](#), setting out how it will facilitate and support the delivery of the necessary infrastructure to keep pace with the national transition to an ultra-low emission vehicle fleet.
- 2.7 Policy T5 of the [Adopted Local Plan](#) requires new developments to provide active charging points and (where appropriate) passive provision, or contributions for future provision. The policy states it will be applied on a case-by-case basis until standards are set out which can be applied to qualifying developments. Those standards are set out in this document in Section 5 below.

3 Authority Profile

3.1 The Council's [Electric Vehicle Charge Point Plan](#) reports an uptake of EV in Central Bedfordshire that broadly reflects the trend being seen nationally:

- By the end of 2020, Central Bedfordshire had a total of 1,595 registered Ultra-Low Emission Vehicles.
- Of the registered ULEVs in Central Bedfordshire at the end of 2020, 59% were Battery Electric Vehicles (BEVs) and 35% were Plug-in Hybrid Electric Vehicles (PHEVs). The remaining 6% are unknown.
- EV ownership has increased significantly in Central Bedfordshire, from 199 in 2015 to 1,595 in 2020. This equates to an eight-fold increase.
- Nationally, EV ownership has increased nine-fold in the same period.

3.2 Currently a small number of planning applications are being submitted with residential EV charge. This will increase following the adoption of the Local Plan (Policy T5) and the new Building Regulations requiring all new development to include a combination of active and passive provision.

4 Charge Point Technologies

Speed of Charge

4.1 There are a range of charging solutions for EVs which are ever evolving due to ongoing technological developments and increasing investment in this market. There are three main types of EV charging – rapid (43kW-50kW), fast (7kW-22kW), and standard/slow (3kW-7kW). These represent the power outputs, and therefore charging speeds, available to charge an EV.

4.2 The suitability of a charging technology is dependent on varying factors such as vehicle type, use case of the individual, location, and the power supply available. Most EVs are supplied with two cables for slow and fast AC charging; one with a three-pin plug, and the other with a Type 2 connector. These cables enable an EV to connect to most standard, Type 2 sockets. In the case of rapid chargers, the cable is tethered to the unit, much like a petrol pump, and the user selects the applicable connector for their vehicle.

Active and Passive Charging Points

4.3 Active charging points are ones which are fully wired and connected ready to be used. 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 EVCP at a future date, thus future proofing developments.

4.4 Practical considerations relating to the provision of active and passive EVCPs will need to be considered early in the design stage of a scheme to enable charging of EV vehicles in safe, accessible, and convenient locations within the development.

4.5 Any underground cable ducts should meet BS EN 61386-24 and the criteria set out in section 6.10 of [Approved Document S of the Building Control Regulations 2015](#). Requirements for future connection locations, including signage, are detailed in section 6.11 of Approved Document S of the Building Control Regulations 2015. A summary of charging technologies and their specification can be found in Appendix 1.

Smart Infrastructure Integration

4.6 The Electric Vehicles (Smart Charge Points) Regulations 2021 were signed into law on 15 December 2021 and come into force on 30 June 2022. These set out minimum standards for all home and workplace EVCPs.

4.7 All new EVCPs must be 'Smart charge' point compatible. The requirements are:

- The charge point must be able to receive and process information provided.
- The charge point must be able to react to information received, by adjusting the rate of charging or discharging.
- The charge point must be able to monitor and record energy consumption and be able to transmit this.

Refer to [Electric Vehicle Home charge Scheme: minimum technical specification](#) for more information.

Changing Technology and Renewable Energy

4.8 EV charging technology is developing at a rapid pace with several emerging technologies being tested, including wireless charging. This guidance does not include details of all available technologies being developed. It is advised that applicants seek advice early in the application stage to identify and agree the EV technology.

4.9 The Council will support the integration of EV charging technology with on-site renewable energy generation, for example Solar Photovoltaics, and energy storage or vehicle-to-grid technology. This should be considered as part of the wider sustainable requirements of a site. Installation of these technologies will make contribution to assessment scoring of building quality and sustainability standards such as the BREEAM (Building Research Establishment Environmental Assessment Method) and Home Quality Mark.

Data and Connectivity

4.10 The increasing availability of data, improving connectivity and capability of vehicles to communicate with each other and infrastructure gives potential to provide network operators and users information in real time, whilst also allowing travellers to plan multi-stage journeys confidently. The growth of apps and their technology has resulted in consumers having information at the click of their fingers.

4.11 Resources such as [ZapMap](#), provide users with the real time consistent information on EV charging point locations. They allow for EV drivers to search for charge points, plan longer journeys, pay on participating networks and share updates with other EV drivers. It is therefore important that any new public EV charging points be added to the ZapMap

website, and other similar resources as the location of accessible EVCPs has the potential to impact charging behaviours.

5 Requirements in Central Bedfordshire

5.1 Table 1 below details the requirements for any new residential development, conversions and change of use applications submitted to Central Bedfordshire Council regarding provision of EV charging infrastructure (Requirement S1 from Building Regulations). Table 2 sets out the requirements for non-residential development, conversions and change of use, such as new commercial, education, health, and leisure development (Requirements S4 and S6 in Building Regulations in relation to new development).

5.2 Table 1 requires, in accordance with the Building Regulations, that all new residential dwellings with garages and private driveways include active vehicle charging points. In Table 2 the EV requirements push delivery of EV charging further than the [Building Regulations](#), demonstrating CBC’s commitment to delivering the vision to maximise the opportunity to develop cleaner and greener modes of travel and seeks to support the implementation of an electric vehicle (EV) charging network to help to make EVs more accessible.

5.3 In general, the type of charger required relates to the length of time a person is likely to be parked. For example, supermarkets are generally going to be short stay so it will be beneficial to provide rapid EVCPs. However, in certain commercial, education and leisure use, provision will need to reflect all users. For example, employees, who are on site for several hours, can use standard chargers whilst visitors may require rapid ones. EV charging spaces designed for fast and rapid charging in public places will need to be managed through a time limit on length of stay.

5.4 The applicant will need to refer to Appendix 1 for further guidance.

Table 1: Provision of EV Charging Points in New Residential Developments

Land Use	EV Requirement	Speed of Charger
New residential dwellings with garage or private driveway Use Class C3	One active EV charging point per dwelling	7.4kW minimum
New residential buildings without a garage or private driveway OR that will have associated parking that is situated within a communal (open or covered) car park, for example flats. Use Class C3	All spaces to be active EV charging points where: <ul style="list-style-type: none"> • There are fewer parking spaces than the number of dwellings; or • The number of parking spaces are equal to the 	7.4kW minimum

Land Use	EV Requirement	Speed of Charger
	<p>total number of dwellings.</p> <p>In addition, all remaining spaces must have passive provision installed.</p>	
<p>Car club provision in residential or mixed-use developments</p> <p>Use Class C3</p>	100% of car club spaces active EV charging.	7.4kW minimum
All disabled parking within any residential new development	100% of space active EV charging	7.4kW minimum

5.5 Table 2 details the requirements expected of non-residential development, such as commercial, education and leisure development. In non-residential uses the amount and type of EV charger will need to reflect the users. For example, employees who are on site for several hours can use standard chargers, but users visiting for a short time will benefit from rapid charging. CBC requires staff parking associated with any land use to have appropriate charging provision.

Table 2: Provision of EV Charging Points in Non-residential New Development

Land Use	EV Requirement	Speed of Charger
<p>Supermarkets / retail areas</p> <p>Use Class F2 and E</p>	<p>10% of parking spaces with active provision and additional 20% of parking spaces with passive provision for EV charge points.</p> <p>For retail / leisure developments with high turnover of parking the spaces should be for rapid charging, due to a short dwell time.</p>	A range of fast (7.4kW or greater) charging, with one rapid charger at least 43kW as a minimum
<p>Employment sites</p> <p>Use Classes B2, B8, C1, C2, C2(a), E, F1, F2 and Sui Generis as appropriate</p>	20% of parking spaces with active provision and an additional 20% of parking spaces with passive provision.	7.4kW minimum

Land Use	EV Requirement	Speed of Charger
Health and Leisure Developments Use Class F2 and Sui Generis	10% of parking spaces with active provision and an additional 20% of parking spaces with passive provision.	A range of fast (7.4kW or greater) charging, with one rapid charger at least 43kW as a minimum
Education facilities, including Universities Use Class F1	20% of parking spaces with active provision and an additional 20% of parking spaces with passive provision	7.4kW minimum
Other Uses	Individual case basis	7.4kW minimum
Designated staff parking associated with any non-residential new development	20% of parking spaces with active provision and an additional 20% of parking spaces with passive provision.	7.4kW minimum
Disabled parking within any non-residential new development	A minimum of one space with active provision. Where more than one space is provided the % used for the appropriate land use should be applied to disabled spaces. Where this calculation does not result in a whole number the value should be rounded up to the next whole number.	7.4kW minimum

Neighbourhood Hubs.

5.6 On large and strategic sites, CBC would like developers to consider providing additional public charging at ultra-rapid charging hubs, allowing quick turnaround times. Charging hubs are located in off-street car parks, where they are readily accessible. EV charging hubs can be especially valuable for areas with apartments or retail and employment centres.

6 Planning Application Submission

6.1 Details of parking to be provided within a development, including the number of electric vehicle charging points, should preferably be in a standalone EV Assessment, or in a Transport Assessment where this is not possible, to be submitted as part of any planning application. There is also a requirement to submit an EV Management Plan after the granting of planning permission, which is described in paragraph 6.10 and Appendix 4. The number and types of charging points required for

new development will depend on the type of development that is being constructed. Refer to Table 1 and Table 2 above which outlines the expected level of Central Bedfordshire EV charging provision. Design standards, which should be reflected in submitted schemes, are provided in Appendix 1.

6.2 Details to be submitted in the EV Assessment or Transport Assessment with a planning application include:

- The number of parking spaces with electric vehicle charging points to be provided and if these are active or passive
- A layout plan showing the location of the spaces and charging equipment
- The adjacent carriageway and footway / margin widths where EV charging is proposed, to ensure sufficient space surrounding the installation - and
- Details on how the parking spaces with charging points will be signed and marked out, the type of charging points and power supply and details of the ducting / cable routes.

6.3 For developments (of all types) where parking is communal, details of how the parking spaces with electric vehicle charging points will be managed and how the charging system will operate should be outlined in the EV Assessment or Transport Assessment. This will need to take account of:

- Where communal charging points on mixed use schemes might be shared across a range of users
- Whether certain user groups, e.g., delivery services, will have time restrictions enforced; and
- Whether certain commercial uses will require larger designated parking points for the charging of large vehicles.

This will need to be produced and submitted in support of a planning application.

6.4 Prior to the submission of a planning application, developers will ascertain whether there is adequate capacity in the local electricity network to supply the number of active and passive electric vehicle charging points required. This should be included in the EV or Transport Assessment. Where capacity improvements are likely to be needed (either for the initial active provision or subsequently for the passive provision) the developer must set out how they intend to secure this.

6.5 A checklist has been provided in Appendix 3 as a guide for applicants to ensure sufficient data is submitted with the planning application.

Conservation Areas and Listed Buildings

6.6 Building Regulations do not cover new residential development in Conservation Areas or within the setting of listed buildings. In these circumstances, CBC will encourage a design led approach which is sympathetic to the significance of the heritage asset and/or its setting, to be discussed on a case-by-case basis. For historic buildings undergoing a material change of use please refer to the Building Regulations for guidance.

Conditions

6.7 A set of standard conditions has been prepared which are included in Appendix 2 for information. This is not an exhaustive list, and conditions may be amended according to requirements.

Off Site Contributions

6.8 New developments unable to facilitate the required number of active and passive chargers on site (due to power supply limitations and high upgrade costs, or space constraints) are expected to contribute towards the provision of alternative EV charging facilities. This may be within on-street parking spaces, at appropriate off-site locations or be within the site at a later date should grid capacity become available. The funding contribution required will be determined based on the typical cost of the necessary active and passive charging infrastructure (including connection cost and the cost of the EV charger and any additional works) and (if necessary), accounting for the additional cost of delivering these on-street and/or off-site. Developers will need to include a justification setting out why appropriate provision cannot be accommodated in the TA or EV Statement.

Electric Vehicle Management Plan

6.9 CBC will require the submission of an Electric Vehicle Management Plan. This should set out who is responsible for maintenance, who is responsible for paying for the electricity and if the bays are allocated how only those entitled can use the EV charging points. A template for the Management Plan is provided in Appendix 4.

Grid Capacity

6.10 In the UK, Distribution Network Operators (DNOs) are responsible for the distribution of electricity from the transmission network to end users. Electricity is distributed at different voltages, which are stepped up and down using transformers at various substations. Central Bedfordshire encompasses 16 primary substations, which are owned and operated by UK Power Networks (UKPN).

6.11 To operate a charging point, a connection is made from the local electricity network to a feeder pillar. Electricity use is billed normally as part of the site's electricity supply. The connection to the local electricity distribution network, the electricity distribution board within the development and any other necessary electricity supply infrastructure, should have sufficient capacity to enable all EV charging points to operate simultaneously at full power.

6.12 Developers must check the available capacity with UKPN at the early stages of the planning application process to determine whether there is already sufficient capacity in the connection to the local electricity network to accommodate EV charging, or whether the DNO needs to upgrade the local supply. Capacity must be considered for active and passive charging provision. It must be clearly stated where there is a need for upgrades to provide additional capacity.

6.13 Where installing passive charging points, the electricity supply will need to be futureproofed. Futureproofing is important because significant charging point deployment may require connection upgrades.

Connection Costs

6.14 The Building Regulations set out a limit of £3,600 for the connection costs in relation to new residential buildings. This relates to the cost of upgrades needed to the electricity system to accommodate a EVCP, excluding the cost of any building work or the cost of the EVCP itself. The connection cost for installing an EVCP is the extra cost of the incoming electrical supply per EVCP connection compared to the cost without EVCPs (see Paragraphs 1.5 to 1.7 of the Building Regulations for more information).

7 Future Reviews

7.1 Central Bedfordshire Council will periodically assess the need for a review of all or part of the document. A review could simply be an internal check as to whether this document is still relevant or could involve a complete rewriting (and consultation) of the document. The need for a periodical review of the EV Charging Technical Guidance is an important consideration for Central Bedfordshire Council, given current and likely future trends in transport within the UK, especially with the Government pledged to remove cars powered by petrol and diesel from UK roads by 2040 as part of its Road to Zero strategy.

Appendix 1: Guidance on charge point technology, design and layout and management

1. Charge Point Technology





There are currently three main speeds of charger, alongside some less common charging types as shown in Figure 1.

Slow/Standard (between 3kW to 7kW): Standard charging points are normally wall mounted and are best suited for overnight charging, due to the length of time required to achieve a full charge which is approximately 6 hours.

Fast Chargers (between 7kW and 22kW): Fast charging more than doubles the available current of standard chargers, allowing these units the ability to fully charge some EV models in 2-4 hours.

Rapid Chargers (between 43-50kW) Rapid charging units can charge a car to 80 per cent capacity within 30 minutes. It is advised that rapid charging bays should have restrictions in place which limit users to a short stay. Due to the size of these charging points, they ideally should be considered for off-street, non-residential sites.

Figure 1: Charge Point Technology (WSP, 2020)

Charge Point Types		Maximum Power Output (Kilowatts)	Current/Supply Type	Input Voltage (Volts)	Maximum Current (Amps)	Charging Mode	Socket/Plugs	Charging Duration (40kW battery)
	Domestic Socket	2.3-3kW	AC – Single Phase	230	10.13A	1/3	Type 1/2	Approx. 17 hours
	Slow	3.7kW	AC – Single Phase	230	16A	92/3	Type 1/2	Approx. 11 hours
	Standard	7.4kW		230	32A	2/3	Type 1/2	Approx. 6 hours
	Fast	11-22kW	AC – Three Phase	400	16-32A per phase	3	Type 2	Approx. 2.4 hours
	Rapid	43kW	AC – Three Phase	400	60A per phase	3	Type 2	Approx. 55 mins
		20-50kW	DC	400	100A	4	CHAdeMO/CCS	Approx. 40 mins
	Tesla Super Charger	75-250kW	DC	Up to 400	Up to 800A	4	Tesla adapted Type 2	Approx. 10-20 mins
	Ultra Rapid	Up to 350kW	DC	Up to 920	Up to 500A	4	CCS / Tesla adapted Type 2	Approx. 7-16 mins

All charging infrastructure must comply with the most up to date and relevant technical standards and regulations. The following links provide some examples of the current Government standards [Electric Vehicle Homecharge Scheme: minimum technical specifications](#), and [Electric Work Place Scheme: minimum technical specifications](#). [The Building Regulations 2010 Infrastructure for the charging of electric vehicles Approved Document S](#).

2. Design and Layout

As with all parking, parking spaces with electric vehicle charging points should be of a safe and practical design and conveniently located. Electric vehicle charging points should be provided for both standard parking spaces and accessible spaces for disabled blue badge holders.

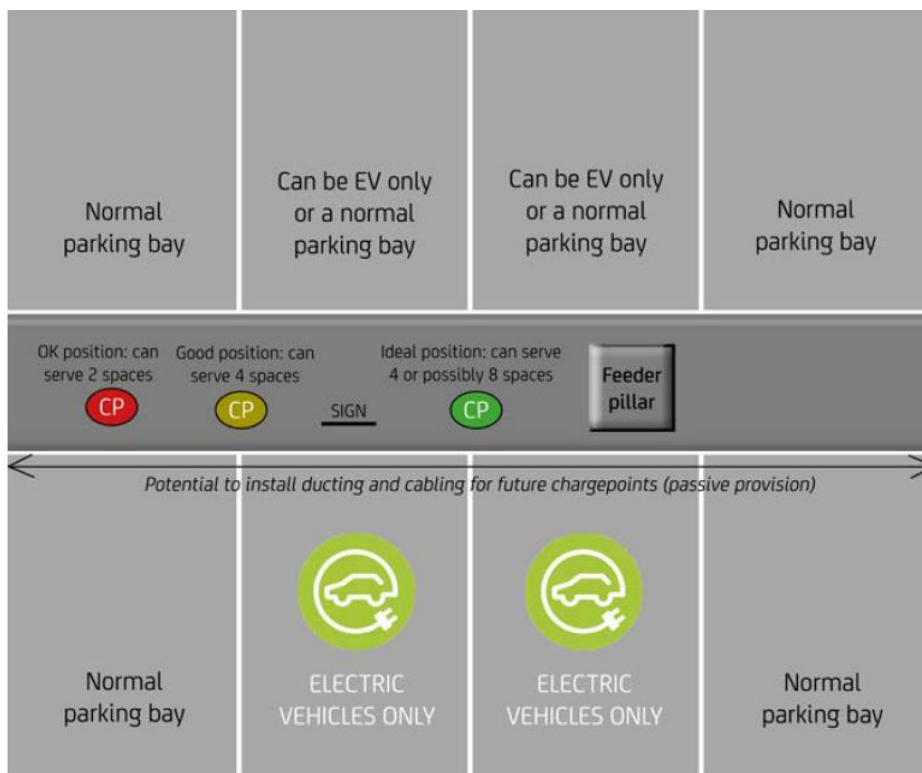
Should commercial uses require larger designated parking points for the charging of large vehicles, the applicant will be required to provide details in the EV Assessment (or Transport Assessment) with details on layout and size of bays, to be agreed on a case-by-case basis.

Layout

Once spaces have been designated, the EVCP should be installed at the edge of a footway or bay where cables will not be a trip hazard. When there are no footways located in a car park, EVCPs should be implemented to serve as many of the adjacent bays as possible as per Figure 2.

All EVCPs must comply with Part S of the Buildings Regulations 2010 including guidance on determining associated parking spaces and site boundary examples. The council will expect plans to clearly show the allocation of EVCPs to individual dwellings.

Figure 2 How the placing of EVCPs and EV bays can restrict or maximize access in a car park layout (not to scale).



Design

Off street EVCPs: In terms of design standard perpendicular parking spaces in public and private car parks or parking areas should be in accordance with Central Bedfordshire parking standards. Developers should consider making spaces wider to aid usability of the EVCP if possible (including those spaces equipped with passive provision for future activation). Bays will need to be longer if the EVCP is situated within the bay, but this should be avoided unless the EVCP is protected by a guard. Where it is on a footway there should still be sufficient width for appropriate pedestrian use of the footway.

In all cases, care should be taken to prevent trip hazards from the charging cables. Wall-mounted units where there is a public or shared pathway between the charging point and the vehicle should be avoided.

On Street Charge Points: In cases where EV charging provision is to be provided on private road/s due to be adopted under section 38 of the Highways Act, the standards from the Central Bedfordshire Highway Construction Standards & Specifications Guidance should be followed and the EV charging points should not narrow the effective footway width. An alternative on-street option is build-outs into the street, these maintain accessibility on the footway.

Driveway EVCPs: Driveways need to be designed with sufficient space for the EVCP to be safely used, to minimise any trip risk and to ensure pedestrians and bicycles have adequate space to access the property.

Design and accessibility for people with disabilities: The design and layout of disabled bays with EVCPs should comply with the Equality Act 2010 guidelines and Department for Transport (DfT) Inclusive Mobility – a guide on best practice on access to pedestrian and transport infrastructure guidelines (2021). The design of the EVCPs shall permit compliance with the requirements of BS 8300:2009 and A1:2010 – Design of Buildings and their approaches to meet the needs of disabled people code of practice. EVCP units serving disabled bays should be positioned at a height and angle to allow wheelchair users access. In all cases, adequate space should be available on any footway for wheelchair users to navigate around the charging unit.

Car Club Bays

Some developments have EV charging spaces for car clubs, allowing car club members to hire an EV by the hour or day and return it to the same spot to charge or further use. The car club will be required to have dedicated EVCPs. EV bays designated for car clubs could be designed to be marked with a different colour than usual EV charging bays and (if the bays will form part of the adopted highway) must involve signage and road markings informing EV drivers that the bay is strictly for car clubs as per Figure 3.

Figure 3: Car Club Traffic Sign



Signage

For both electric vehicle and non-electric vehicle users to understand that the bay is reserved for those charging only, a clear sign with instructions should be located near the charging points.

The signage that pinpoints EV charging locations must comply with the TSRGD 2016 if erected on the public highway or land that is proposed to be offered up for adoption as shown in Figure 4. The requirement to comply with the TSRGD 2016 does not apply to private roads however use of similar signage (where necessary) is recommended to aid easy identification of EVCPs.

Future charging locations (those with passive provision) should also be labelled in accordance with Building Regulations. An example of the label that should be used to identify a future connection location is shown in Figure 5.

Figure 4: TSRGD compliant signage for EV charging bays (suitable on public highway and private roads)



Figure 4: Signage for future EV charging bays (private roads only)



3. Management

Management Plan

Non-residential application and those applications including EV provision remote from a residential dwelling will need to be accompanied by an EV Management Plan detailing how charge points will be operated, maintained, and managed. An example is provided in Appendix 4.

Enforcement

Parking controls for charging bays can vary depending on where they are located and can include a restricted operational time period where a high turnover is expected e.g., rapid EVCPs or provided without time limits. EV bays should be clearly signed and marked for EV charging only. Details of any relevant enforcement arrangements and time restrictions on charging will be expected in an accompanying Electric Vehicle Management Plan.

All on-street bays will need be signed and lined in accordance with the [TSRGD](#) (2016).

Traffic Regulation Orders (TROs) would need to be implemented where bays are located on the public highway (i.e. roads adopted under a section 38 agreement). TROs allow local authorities to regulate, restrict or prohibit the use of a road, or any part of a road, by vehicular traffic or pedestrians and TROs are enforced through Penalty Charge Notices (PCNs).

Ongoing maintenance of EVCPs

Issues with EVCPs must be resolved, and necessary support must be paid for. This is the responsibility of the owner, though maintenance is likely to be undertaken by the charging infrastructure provider or their contracted service. The equipment owner ultimately has responsibility and liability for any unsafe equipment or infrastructure and is encouraged to ensure they have an appropriate maintenance contract, service level agreement or other suitable arrangement in place to ensure that safety problems are addressed promptly. Provision must be made to ensure that in the event of the owner, charging infrastructure provider or their contracted service becoming insolvent then the management, maintenance and provision of the charging infrastructure can be continued.

Should CBC allow charging infrastructure to be installed on the public highway or a road that is to be adopted as public highway, this shall be subject to licensing under Section 50 of the New Roads and Street Works Act 1991 and any licenses granted will place such conditions as the Council deems appropriate to ensure the ongoing safe provision and management of the infrastructure, which may include the payment of a bond.

Appendix 2: Planning Conditions

Planning conditions will be used to require the provision and retention of charging points for the charging of electric vehicles and associated car parking spaces, as well as ducting / cable routes to enable the provision of additional electric vehicle charging points to be provided in the future. Example conditions are outlined below.

Charging point for a single dwelling

Prior to the occupation of a development, details of an electric charging point within the site shall be submitted to and approved in writing by the local planning authority. The approved details shall be implemented, with the charging point available for use prior to occupation.

Reason: To ensure that adequate parking with facilities for the charging of electric vehicles are provided in accordance with Policy T5 Ultra Low Emission Vehicles; Policy T3 Parking; Policy T2 Highways Safety and Design and Policy CC1 Climate Change and Sustainability Paragraphs 110, of the National Planning Policy Framework.

Charging points and ducting

Prior to the occupation of development, details of the proposed charging points and ducting shall be submitted to and approved in writing by the local planning authority. Details to be submitted should include:

- Proposals to provide a minimum of *** charging points within the site for the charging of electric vehicles, together with associated signed / delineated car parking spaces.
- Ducting / cable routes to all other car parking spaces within the site to enable charging points for the charging of electric vehicles to be provided for all other parking spaces in the site in the future.
- A management and maintenance scheme outlining how the charging points and associated car parking spaces will be managed and operated.

The approved development shall not be occupied until the scheme has been provided in accordance with the approved details, including the approved ducting / cable routes. The charging points and associated car parking spaces shall thereafter be retained, as approved, and shall remain available for use. The charging points and associated car parking spaces shall be managed and operated at all times in complete accordance with the approved method statement (or alternative method statement as may have been approved in writing by the Local Planning Authority).

Reason: To ensure that adequate parking with facilities for the charging of electric vehicles are provided in accordance with Policy T5 Ultra Low Emission Vehicles; Policy T3 Parking; Policy T2 Highways Safety and Design and Policy CC1 Climate Change and Sustainability Paragraphs 110, of the National Planning Policy Framework.

Off- Site charging points

Prior to the occupation of development, details of *** ** charging points for the charging of electric vehicles shall be submitted to and approved in writing by the Local Planning Authority. Details shall include:

- The location of the charging points
- Details of the charging points and associated parking spaces (including details of the equipment, signage and carriageway markings)
- Confirmation of how they will be provided (including details of any required traffic regulation order)
- A timescale for their provision
- A management and maintenance scheme outlining how the charging points and associated car parking spaces will be managed and operated.

The scheme shall be provided in accordance with the approved details and shall be available for use in accordance with the approved timescales. Thereafter the charging points (including associated parking spaces and cables) shall be retained and remain available for use at all times thereafter unless it is replaced by an upgraded charging point available for use. The charging points shall be managed in accordance with the Management and Maintenance Plan in perpetuity.

Reason: To ensure that adequate parking with facilities for the charging of electric vehicles are provided in accordance with Policy T5 Ultra Low Emission Vehicles; Policy T3 Parking; Policy T2 Highways Safety and Design and Policy CC1 Climate Change and Sustainability Paragraphs 110, of the National Planning Policy Framework.

Appendix 3 Planning Application Checklist

Details of parking to be provided within a development, including the number of electric vehicle charging points, should be in a Transport Assessment or standalone EV Assessment, submitted as part of any planning application. Please ensure the following are submitted:

Requirement	Submission (please tick)
Total number of parking spaces on site	
Number and type of ACTIVE charging points	
Number and type of PASSIVE charging points	
Evidence to demonstrate capacity to supply the electric vehicle charging points proposed	
Carriageway and footway / margin widths where EV charging is proposed	
A layout plan showing the location of the spaces and charging equipment	
If applicable, the location of shared / communal charging points	
If applicable, the number and location of larger designated parking points for the charging of large vehicles	
Details of how the parking spaces with charging points will be signed and marked out	
Details of the ducting / cable routes	

Appendix 4 Charge Point Operation & Management Strategy Template

Complete and submit this template as part of the planning application.

Planning Application

Planning Application	
Application Number	CB/
Application Address	
Application Type:	

1. Charge Point Planning Requirements

Please demonstrate how you plan to meet the charging infrastructure requirements associated with this application. Refer to Tables 1 and 2 in Central Bedfordshire Council's Electric Vehicle Charging Technical Guidance and Approved Document S of the Building Regulations.

		Land Use/ Parking Type	Number of Associated Parking Spaces	Number of Active Chargers	Number of Passive Chargers
Sui 1	Number of chargers required	Residential			
		Offices/ Industrial			
		Shops/ Retail/ Leisure/ Hotels			
		Large Commercial development			
		Educational			
		Sui Generis			
		Fleet/ Operational Parking			

		Car Clubs				
		Blue Badge Bays				
2	Type of charge points	Charge Point Type	Number of Active Chargers Proposed on site by type		Number of Passive Chargers Proposed on site by type	
		Standard				
		Fast				
		Rapid				
		Ultra-Rapid				
3	Requirement for off-site chargers?	Requirement for off-site chargers?	Charge Point Type	Number of Active Chargers Required	Number of Passive Chargers Required	Developer Contribution
		Yes	Rapid/ Ultra-Rapid Hub			
		No	On-street Chargers			
4	Installation of Active and Passive Chargers	Active and passive chargers must be shown on the layout plan indicating which bays they serve and the specification, make and model of the chargers			Charger/s Make and Model	
		Upon completion and prior to occupation, confirmation must be provided that the active and passive chargers have been installed and are operational, with verification from the charge point supplier that the chargers are in good working order, with an annual maintenance, data and customer support package in place, with a minimum of 3 years warranty, and evidence provided to the Council upon request (i.e. photographs and or invoices/ receipts).			Confirmation from supplier and summary of package	
		Confirmation from UKPN that the required power supply capacity is available for active and passive chargers.			Capacity Requirement	Confirmed Power Capacity
					kVA	kVA

2. Charge Point Operation and Management Strategy

Please fill in the grey cells in the table below to demonstrate that the following aspects of charge point operation and management have been considered.

1	Parking Management	Number of Associated Parking Spaces:	
		Freehold/ Privately Owned Bay	
		Leaseholder/ Tenant - Allocated Bay/ Dedicated Bay	
		Leaseholder/ Tenant - Communal/ 'Right to Park'	
		Commercial/Employment Development – Staff Bays	
		Commercial Development – Visitor Bays	
2	Charge Point Stakeholders and responsible parties	Responsible parties and stakeholders identified:	
		Developer	
		Property Owner/ Manager	
		Occupant/ Tenant	
		Charge Point User Type/s - Customer/ Employee/ Fleet/ Resident	
		Charge Point Supplier/ Manufacturer	
		Charge Point Installer	
		Charge Point Operator (if applicable)	
		Confirm which stakeholder will manage the charge points, maintain contractual relationships, pay operating costs, collect payments, activate passive chargers etc.	
3	Charge Point Documentation and handover	Copy of charge point technical plans, certification, contracts, service level agreement and contact details should be provided to owner/ manager upon taking occupancy.	
		Formal handover of the chargers provided to the tenant/occupant/new owner, with training provided in the use of the chargers and any back-office management software.	

4	Charge Point Access	Charge points offer host access via software to enable monitoring of usage, controls to restrict access, manage price setting and charging rates	
		Publicly accessible chargers should be registered with National Chargepoint Registry and Zap Map and should be publicly accessible at all times.	
5	Unlocking and using Charge Points	Confirmation of method/s for accessing and unlocking the EVCPs:	
		Contactless credit cards	
		RFID cards	
		Apps	
		NFC (Near Field Communication)	
		Unlocked (but with secure private parking)	
6	Charging Fees	Confirm pricing mechanism/s chosen, or pricing options available to host if not yet defined:	
		Power consumption – £ per kW/h	
		Time charging – £ per hour (Stops once charge is complete)	
		Time occupied – £ per hour (Stops once car is disconnected)	
		Other	
7	Operating Costs and Price Setting	Confirmation of pricing for the use of chargers:	
		Residents	
		Visitors	
		Employees	
		Operational	
		How will operating costs (data, back office support, maintenance) be funded?:	
		Surcharges included within the fees applied for those using the charge points	
		Overheads remunerated through service charges, parking charges etc	
		Other	
Commitment to limit price increases to only covering increases in electricity or charger operation?			

8	Length of Stay / Enforcement Mechanisms	Length of stay restrictions proposed for the active charger bays	
		Unrestricted	
		Fair Usage	
		Max Stay	
		Enforcement measures proposed for active charger bays:	
		Bay markings and signage	
		Secured parking - access controlled	
		Parking Charge Notices	
		Overstay fees	
9	Charge Point Expansion Process – Activating Passive Chargers	Outline the process for activating passive EV bays:	
		For communal parking (right to park) – Must have reasonable access to a charger. Once average overnight utilisation exceeds 80%, a further passive bay is activated.	
		For allocated parking – Occupants must be able to request activation of a passive bay. Outline any charges to applicants for the cost of activating a passive bay, how payment will be collected, and whether residents/ tenants can access government grants	
		For residential sites - upon registering an EV, the applicant should have reasonable access to an active charger within 6-8 weeks.	
10	Communicating the Passive Charger Activation Process with Tenants	Residents/ employees/ tenants must be made aware of their right to access an EV charger. Please specify how this will be done below.	
		Stickers on passive charger back plates/ parking space signage with contact details to request activation	
		Webpage/ Information sheet	

	Contact details provided for a charge point supplier / installer as part of occupancy documentation	
	Other	

Provide details (below or in an appendix) of the proposed chargers, charge point mounting, parking bay dimensions, controls and display screen positioning, signing and bay markings, shelter and lighting, pedestrian access and prevention of trip and other hazards.

Empty area for providing details of proposed chargers, charge point mounting, parking bay dimensions, controls and display screen positioning, signing and bay markings, shelter and lighting, pedestrian access and prevention of trip and other hazards.

Describe (below or in an appendix) the maintenance arrangements for the proposed charge points

Describe (below or in an appendix) the physical access arrangements for the proposed charge points

The checklist below can be used to ensure that the relevant standards and guidance have been followed in the plan. This checklist will be used by the council in assessing the planning application with regard to charge point provision.

Item		Relevant Standards/ Guidance (Refer to relevant sections of CBC guidance document or building regs where appropriate)	Check
1	Single or Dual Chargers	Refer to relevant part of CBC guidance and/or Building Regs	
2	Charge Point Mounting	Refer to relevant part of CBC guidance and/or Building Regs	
3	Parking Bay Dimensions	Refer to relevant CBC Guidance	
4	Controls and Display Screen Positioning	British Standard on the design of buildings (BS8300)	
5	Signing and Bay Markings	On-street: Traffic Sign Regulations and General Directions 2016	
6	Pedestrian Access and Trip Hazards	Refer to relevant CBC Guidance	
7	Additional Consideration for Disabled Bays	DfT's Inclusive Mobility, Approved Document S, and British Standard on the design of buildings (BS8300)	
8	Charge Point Technical Specifications	<u>IET Code of Practice for Electric Vehicle Charging Equipment Installation</u>	

Central Bedfordshire in contact

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