

## Design & Access Statement

**Planning Application ref #:**

**PP-12018209**

**Title:**

Installation of one JOLT unit (Electric Vehicle Charge Point, with integral double-sided LCD screen), associated electrical connection works and one parking bay allocated to 'Electric Vehicles Only'.

**Date:** 31st October 2023

**Applicant:**

JOLT Charge Limited.

**Location:**

London Borough of Barnet: O/S 4, 6 and 8 Church Hill Road, EN4 8TB.

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### **Introduction from Council Officers to Support the Planning and Advertising Consent Applications by JOLT Charge Limited**

This project is being promoted by the London Borough of Barnet Street Scene Service who have successfully secured a substantial sum of over £2.1m in grant funding to support this initiative. Subsequently, a contract has been awarded to JOLT to supply, install, manage and maintain 120 charge points, with the added benefit of JOLT funding the remainder of the project (c. £1.4m).

The project is of key strategic importance to the Council. It most notably supports Barnet's Electric Vehicle Charge Point Programme, which focuses on supporting residents in their transition to more sustainable modes of transport and plays a pivotal role in supporting the Council's Sustainability Action Plan (BarNET ZERO) and Long-Term Transport Strategy. However, it also has major financial implications for the organisation, with expected revenues forming a key part of the Council meeting its MTFS obligations.

The introduction of this type of charge point is fundamental to the delivery of the Council's EV Infrastructure Strategy, which has identified the need for a range of charge point types to suit the variety of user demands within the Borough.

The Council's EV Infrastructure Strategy identifies the need for faster rated chargers within Town Centre locations where there are relatively short vehicle dwell times, and therefore residents and visitors will want to charge quickly whilst they use the high street amenities. The chargers therefore need to be larger in size and hence able to deliver a faster charging experience in order to be considered fit for purpose. It is also hoped that, by encouraging visitors into the town centres, it will encourage spending and provide a range of economic benefits for local businesses.

This project has been developed by Council Officers following extensive dialogue with suppliers within the EV market. Emerging from this engagement, the Council has worked collaboratively with suppliers, with a particular focus on exploring innovative and novel solutions. This will allow the Borough to remain at the forefront of EV charging, thus expediting the move of Barnet residents to more sustainable travel modes. The JOLT charge points included within these planning and advertising consent applications have been selected as the best possible solution to achieve these aims – a fact which has been recognised on a national scale, with the JOLT project forming a key part in the LGCs decision to shortlist Barnet's EV charge point programme for its Future Places Award.

It is worth noting that, as part of JOLT's innovative solution, the Council will generate significant sums of income, whilst EV drivers will benefit from free charging sessions. This is only possible due to the innovative design whereby the charge points incorporate digital advertising. It is important to note that this is not a solution that only generates income for the Supplier, but one that shares the advertising revenue with the Council and EV drivers. This allows the Council to deliver against its MTFS financial targets, whilst ensuring that Barnet residents and EV drivers in general can benefit from free and low-cost charging.

The Council have already requested that JOLT make modifications to the standard design of their charge points, which have been accommodated with the inclusion of perforations in the lower

section of the charger. This addressed concerns that the Police and Community Safety teams had raised in respect to having visibility through the units and hence, avoiding anyone trying to hide behind them.

JOLT is fully aware of the need for statutory Notices (s17) to be sent to all frontages where we propose to install Charge Points. This statutory process allows frontages to make representations which will be appropriately reviewed jointly by senior Council Officers and JOLT.

Additionally, it should be noted that, if the charge points were to be refused planning permission, then this would not only have significant implications for the current state of Barnet's EV charge point programme, but would also impact the Council's ability to seek and secure funding in the future.

In conclusion, the Council is keen to adopt the innovative design of the JOLT charge points. The multitude of economic and environmental benefits that arise from combined charging and advertising infrastructure is relatively new in the UK – once again putting Barnet at the forefront of EV charging infrastructure.

## **1. Introduction**

The London Borough of Barnet ('LB Barnet') was awarded funding from the government's £450m Local Electric Vehicle Infrastructure (LEVI) pilot scheme, launched in August 2022, aimed at funding on-street charging points. LB Barnet will be the first London Borough to benefit from the initial round of LEVI funding.

JOLT Charge Ltd ('JOLT') is a specialist EV Charge Point Operator ('CPO') operating in the UK, Australia, New Zealand, USA and Canada. JOLT partners with Local Authorities to deploy fast DC Electric Vehicle Charge Points (EVCPs), which provide a daily allocation of free EV charging for every resident, visitor and commercial vehicle.

This Design and Access Statement has been prepared by JOLT to support a planning application for the Installation of one JOLT unit (Electric Vehicle Charge Point, with integral double-sided LCD screen), associated electrical connection works and one parking bay allocated to 'Electric Vehicles Only'. The location of the works will be outside of 4, 6 and 8 Church Hill Road, EN4 8TB.

This Design and Access Statement is one of four documents in support of a planning application for one JOLT unit, which also includes:

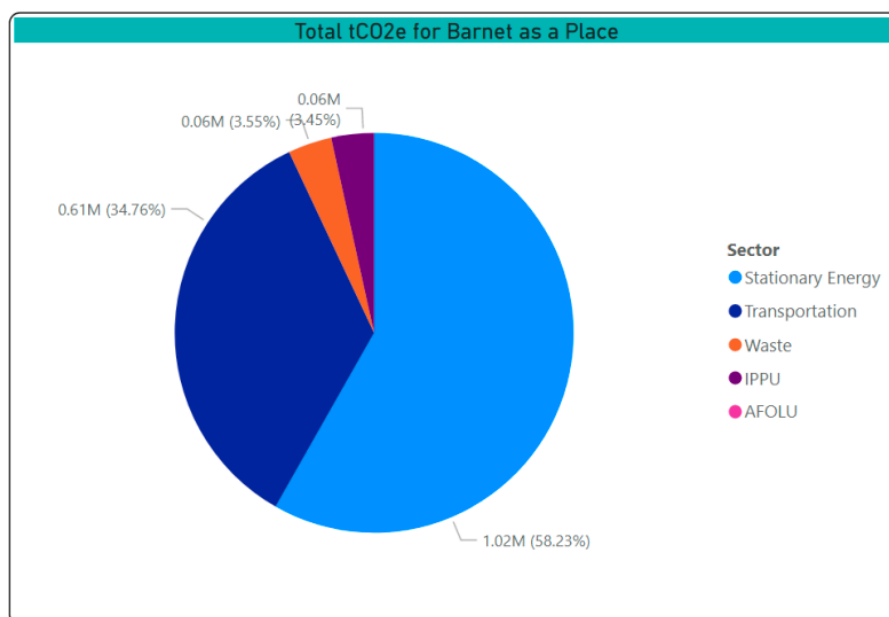
- Existing site drawing & location plan.
- Proposed site drawing & location plan.
- JOLT Unit data specification sheets.

## **2. Background to Application**

### **Transport Emissions and Health**

Transport is the largest emitter of Greenhouse Gas ('GHG') in the UK. In 2020, transport produced 406 Mt of CO<sub>2</sub> in 2020, which makes up 24% of the UK's total emissions. In the same year, 33% of Nitrogen Oxides (NO<sub>x</sub>) and 14% of Particulate Matter (PM2.5) emissions came from transport. Air pollution within the London Borough of Barnet ('LB Barnet') is largely due to transport, with areas of

higher pollution mainly concentrated around the main roads and junctions. Barnet's Sustainability Strategy Framework identified that, in the year 2020/21, almost 35% of the Borough's 1.76 million tCO<sub>2</sub>e came from transport (as shown below).



According to the World Health Organisation, toxic air is the leading environmental contributor to illness and early death. The health cost to society as a result of air pollution in the UK is estimated to be roughly £15 billion every year. Air pollution is recognised as a contributing factor in the onset of heart disease and cancer, and particularly affects the most vulnerable in society such as children and older people and those with heart and lung conditions. There is also often a strong link to equality issues, because poor air quality often correlates with less affluent areas.

Long-term exposure to air pollution can produce respiratory symptoms and affect lung function, with high concentrations causing inflammation of the airways. Approximately 4,000 deaths pa in London are attributable to air pollution; LB Barnet has one of the highest rates in the London Boroughs, with 201 deaths (8.4 per 10,000).

The 'Health Impact Assessment of Air Pollution on Asthma in London' report confirmed that over 4,000 Londoners were hospitalised with asthma and serious lung complaints over the course of three years (2014 - 2016) due to harmful air pollution, an average of around 1,000 residents pa. Between 2014-16, asthmatic children under 14 made up one quarter of those admitted with airway diseases. A landmark study of the impact of London's air pollution found that children growing up in polluted parts of the capital showed significantly smaller lung volume, with a loss of approximately five per cent in lung capacity - equivalent to two large eggs - compared to their peers in the rest of England.

International studies show that areas with higher percentages of Electric Vehicles see a direct reduction in the number of hospital admissions.

### **Net Zero, EV policy, EV numbers, barriers to uptake**

The UK Government announced a complete ban on the sale of new petrol and diesel vehicles by 2030 to help the UK meet its aim of reaching net-zero greenhouse gas emissions by 2050. The Department for Transport set out goals for 22% of manufacturers' new car sales to be zero-emission vehicles in 2024, increasing to 33% in 2026, 52% in 2028, and 80% in 2030.

Electric Vehicle ownership in London increased by 53% between Q3 2021 and Q3 2022, up from 23,353 to 35,626 Battery Electric Vehicles (BEVs). This included 6,000 black cabs and 7,000 Uber-operated private-hire vehicles. The latest figures available show 1.58% of London's vehicles are now BEVs.

In LB Barnet the car remains the principal mode of travel, accounting for approximately 44% of all trips made. LB Barnet residents own 142,000 private cars, which is the second highest level of car ownership in London. Department of Transport figures show that there were 3,939 battery electric cars registered in the Borough in Q3 2022, representing a 53% increase in 12 months. Battery Electric Light Goods Vehicles rose from 77 in Q3 2021 to 114 in Q3 2022, a 48% increase. Despite this encouraging growth rate, in absolute terms only 2.7% of the total cars registered in LB Barnet are Electric Vehicles, showing the huge potential for additional change.

There remain serious obstacles to the continuing transition to EVs. The UK Government's Electric Vehicle Market Study states "It is essential that there is a comprehensive and competitive EV charging network in place, one that people can trust and they are confident using. If this is not the case, it will be a major barrier to EV take-up".

Data shows more than 80% of new Electric Vehicles are sold to those with the ability to charge at home. Those reliant on the public charging network – including the 60% of Londoners don't have access to off-street parking - cannot fully embrace the transition to Electric Vehicles until they have access to an extensive network of well-maintained charge points, with competitive charging rates, located in the areas they live in and visit.

High energy prices are an additional factor limiting the adoption of Electric Vehicles. Historically, EVs had a lower Total Cost of Ownership (TCO) to run and maintain than petrol or diesel vehicles. A charging cost of 64p/kWh is quoted as the 'tipping point' where it is no longer cheaper to run an EV than a fossil fuel car on a cost per mile basis, and this cost is frequently exceeded on the existing public charging networks. This high-cost public charging has become a further barrier to the take up of EVs, disproportionately affecting those reliant on the public charging facilities.

JOLT's allocation of 7kWhs of free EV charging (giving approximately 30 miles range in 15 minutes), every day to everyone, reduces the TCO in line with private charging rates, providing a fair and equitable EV charging solution.

### **3. Site Description**

**3.1** The site is located outside of 4, 6 and 8 Church Hill Road, EN4 8TB, approximately 56 metres south from the centre of the junction with Jackson Road. The site is not outside of residential property and can be found adjacent to the parking bay on the boundary between 4 and 6 Church Hill Road. See the accompanying 'Existing Site Drawing & Location Plan' and 'Proposed Site Drawing & Location Plan' for details.

**3.2** Church Hill Road is a frequently used main road connecting East Barnet Village and Osidge, geographically located towards the east of the borough. The road has a relatively high traffic count and hosts multiple shops and businesses, in addition to being located along several bus routes. There are numerous flats situated above the shops and along the road which don't have access to off-street parking and therefore would be reliant on public charging infrastructure to enable a switch to EVs. Existing parking is along the parking bay on Church Hill Road, with sufficient road width remaining for vehicles to pass. There are currently a limited number of slow (5kW) publicly available EVCPs within

the area. This current level of EVCP deployment isn't adequate to cater to the number of residents and visitors within this area, requiring additional EVCPs of a variety of charging speeds to be installed.

**3.3** The site has been selected based upon the need for additional fast EVCPs in the area, the high attraction rate of the site and the suitability of the location for an EV charge point. The site conforms to the current standards in the IET Code of Practice for Electric Vehicle Charging Equipment Installation, 4th Edition. JOLT has reviewed the draft 5<sup>th</sup> Edition of the IET Code of Practice, currently out for consultation, and the site selection criteria meets the updated standards.

The EVCP will be situated 450mm from the kerb and provide a safe environment with no negative impact on the street scene, as per the TfL Streetscape Guidance Fourth Edition 2022 Revision 2 section 10.5 (Electric Vehicle Charging Points).

The JOLT unit position, cables, and location parallel to the bay will allow EVs to park in the same direction as the flow of traffic.

Part III of the Disability Discrimination Act 1995 (DDA) recommends a clear pavement width of 2000mm, which allows two wheelchairs to pass one another comfortably. The existing footway has a total width of 3960mm. The JOLT Unit is 1160mm wide and will be placed 450mm from the kerb edge. This leaves over 2090mm of clear footway width between the back of the JOLT unit and the back of the footway.

The site will have an 'EV Charging Only' allocated bay, and would serve the EV charging needs of the surrounding residential properties with no access to off-street parking, namely Jackson Road, Littlegrove and residential properties above commercial premises on High Road.

JOLT has taken significant steps to minimise any impact on visual amenity by carefully considering function, appropriate siting, design, colour, surface finish and materials.

The location is not in a conservation area. The site is not impacted by trees, other electrical furniture, road junctions, reduced footway width or accessibility restrictions, making it suitable for granting planning permission.

#### **4. Proposal: The installation of one JOLT unit (Electric Vehicle Charge Point, with integral double-sided LCD screen), associated electrical connection works and one parking bay allocated to electric vehicles**

JOLT's premium on-street infrastructure is designed by Vert Design, an environmentally-conscious design studio based in Sydney, Australia, that delivers world-class solutions to a range of international clients.

The unit has a non-reflective, Monument Grey finish, designed to be sympathetic with a wide variety of street settings. The unit is certified IP55+ for dust and water resistance, with easy clean, graffiti-resistant coatings, allowing the units to become an attractive, well-maintained part of the local streetscape.

Making street furniture Inclusive and accessible is a core principle guiding JOLT's product design, which incorporates extensive feedback from the Motability User Engagement (link: [user-engagement-report-accessible-ev-charging-motability.pdf](#)).

Key features include:

- Tethered charging cable, connected to the unit
- A lighter, more manageable 25kW DC cable, making it easier to handle for all users
- A counterbalance mechanism, meaning the driver does not carry the weight of the charging cable
- A pullback mechanism to ensure the cable returns to the unit and not be left trailing
- Longer charging cable length to reach all possible charging port locations on an EV. This allows EVs to park in the direction of traffic with no need to manoeuvre the vehicle or park facing oncoming traffic
- Designed for single handed use; no awkward flaps to lift, no twisting motion required
- A downward facing light above the cables (which automatically activates when dark) to improve visibility, reduce vandalism and create a safer feeling space for users

Most EV charging hardware incorporates one or more of these features; the JOLT Unit is the only commercially available unit which incorporates every one of these key feedback points into its charge point design.

The display screen has multi-layer, laminated, vandal-resistant cover glass with anti-reflective coating to minimise mirror haze and reflection. It is IP66 certified for dust and water resistance. The JOLT display is equipped with a MEMS sensor which detects and reports on shock and impact events, so attempted vandalism or damage from a vehicle strike is notified automatically and immediately.

The primary function of the JOLT unit is electric vehicle charging, with a secondary function of digital out-of-home advertising, which pays for the daily free charge. The integral double-sided LCD screen will display paid-for adverts by third party companies, compliant with national and local advertising standards and requirements.

The dual functionality of the JOLT unit reduces street clutter by combining the EVCP and a double-sided display screen into a single unit. This reduces the number of power connections required (a single connection provides energy for the entire JOLT unit) and reduces the number of vehicle movements within LB Barnet as maintenance is carried out on a single visit.

JOLT's unit has both CCS2 and CHAdeMO connectors and charges at 25kW DC, making it compatible with all Electric Vehicles sold in the UK. JOLT's 25kW DC charging system is classed as the 'fastest fast-charger' and provides an average EV with approximately 30 miles of range for every 15 minutes of charging time, making it the ideal solution for short-stay parking bays.

In addition to charging via the JOLT App, the unit allows payment on an ad hoc (or pay-as-you-go) 'contactless' basis without requiring the user to enter into an ongoing contract or membership scheme, as required under the [Alternative Fuels Infrastructure Regulations 2017](#).

The JOLT unit can support 32 charging sessions per day, based on each EV taking 14kW of charge, which equates to approximately 60 miles range per charging session. This increases the efficiency and effectiveness of current parking resources, by providing more charge, to more vehicles, from less parking bays.

JOLT's unit is designed with forward-looking capabilities to support drivers well into the future. For example, 'Plug & Charge' technology will become mainstream during the course of the agreement with LB Barnet; this allows automatic activation of a charging point without the need for a card payment or an App via a smartphone. Early adopters of this technology will likely be drivers with accessibility needs or those who feel vulnerable using a phone or contactless card on the street. As

more new vehicles have this technology incorporated, JOLT will add 'Plug & Charge' authentication to the unit.

The double-sided screen can be 'touch enabled' at the discretion of LB Barnet, making it useful for both wayfinding / maps and as a survey tool to engage the public.

LB Barnet will have an allocation of time on the screens for community messaging to communicate with residents. These messages can be sensitively tailored to hyper-local needs, and displayed in multiple languages to reflect the demographic of the community, making communication of important messages around health, weather and security more effective. Messaging can also be tailored for neurodivergent users.

LB Barnet will have access to JOLT's Emergency Messaging System ('EMS'), a secure web-based service. Within seconds, the Local Authority or emergency services will be able to display targeted emergency information (in multiple languages, based on screen location) which will interrupt and override all other content on the screens.

The JOLT Unit can reach segments of the community that are otherwise digitally excluded, particularly those without a computer or the internet at home, and also helps reduce the effects of digital poverty.

JOLT intends to work with NaviLens, a system that alerts blind and visually impaired people to the presence of street furniture and to provide information regarding the environment around them. More information can be found via [NaviLens EMPOWERING the visually impaired](#).

This functionality combines to help LB Barnet to quickly communicate with more residents, making LB Barnet more inclusive, informed and safer for everyone.

The JOLT Unit is fitted with sensors that can collect anonymized data for pedestrian counts, usage and dwell times that can be provided to LB Barnet. It can also be fitted with optional security cameras to provide additional community safety.

Unsold screen time will be provided free to local businesses in the vicinity of the JOLT unit, supporting LB Barnet's small business community.

The JOLT Unit can be 5G and Wi-Fi enabled and can be fitted with optional air quality monitors.

LB Barnet's fleet of council vehicles will also benefit, allowing LB Barnet to transition its fleet of vehicles to EV at a faster rate.

Future Proofing the units was a key element in JOLT's design process. JOLT manufactures its own hardware, giving greater control over new innovations and facilitating changes. For example, if wireless charging becomes prevalent during the lifetime of the contract, JOLT can add this functionality to the unit without the need to disrupt or replace the existing street furniture.

## **5. Planning Policy, LB Barnet Local Plan and LB Barnet Initiatives**

JOLT has reviewed the policies and initiatives of LB Barnet, Greater London as a whole and National Planning Policy Framework. The partnership between JOLT and LB Barnet will support the policies and initiatives described in the following sections.



### **LB Barnet Local Plan, The London Plan (2021) - Policy D8 (B) and Policy SD10 Strategic and Local regeneration**

The LB Barnet Local Plan embodies spatial planning – the practice of ‘place shaping’ - to deliver positive social, economic and environmental outcomes and provide the overarching local policy framework for delivering sustainable development in Barnet. Each JOLT unit supports this overall vision by way of, and not limited to, the following key features:

- Encouraging the switch from internal combustion engine (‘ICE’) to electric vehicles by installing well designed, reliable, future-proofed infrastructure at key locations to support those with no access to private charging facilities
- Providing a daily free charge to all users making the transition to EV more cost effective and democratic
- Providing LB Barnet with a communications platform to engage directly with local communities
- Using only 100% independently certified renewable energy

This supports the London Plan Policy D8 (B) which requires that the public realm is well-designed, safe, accessible, inclusive, attractive, well-connected, related to the local and historic context, and easy to understand, service and maintain. Landscape treatment, planting, street furniture and surface materials should be of good quality, fit-for-purpose, durable and sustainable.

The London Plan Policy SD10, Strategic and Local Regeneration, states that Development Plans, Opportunity Area Planning Frameworks and development proposals should contribute to regeneration by tackling inequalities and the environmental, economic and social barriers that affect the lives of people in the area, especially in Strategic and Local Areas for Regeneration. The JOLT unit reduces inequality by addressing environmental, economic and social barriers to EV ownership and use for residents, visitors and businesses.

### **LB Barnet Local Plan (Core Strategy Policies) Sept 2012 - Policy CS1: Barnet’s Place Shaping Strategy**

LB Barnet’s Three Strands Approach seeks the highest standards of urban design. The JOLT Unit is well designed, attractive and sits sympathetically in a wide range of street settings. In addition, the unit’s primary function of fast, free charging for Electric Vehicles will contribute to an improvement in air quality, increasing the physical health of the local population. The dual functionality will help LB Barnet reach out to all members of the community, which can improve mental health and a feeling of inclusion and connectedness.

### **LB Barnet Local Plan (Development Management Policies) Sept 2012 - Policy DM01: Protecting Barnet’s character and amenity. LB Barnet Local Plan - Design Guidance Note no:1 Advertising and Signs, The London Plan (2021) - Policy D8 (B)**

LB Barnet’s Local Plan details policy surrounding advertisements in their Design Guidance Note no:1 Advertising and Signs, highlighting the detrimental effect that unattractive units can have on the built environment. Policy DM01 requires developments to blend seamlessly into the streetscape and not detract from the characteristics of a building or street, with advertisement units sensitively considered with a design and placement which enhances the area. This supports The London Plan

Policy D8 (B) which states lighting, including that for advertisements, should be carefully considered and well-designed in order to minimise intrusive lighting infrastructure and reduce light pollution.

JOLT's unit represents high quality design which demonstrates environmental awareness and contributes to climate change mitigation and adaptation. The unit respects the appearance and scale of LB Barnet's spaces and streets. It is attractive, safe and well-maintained street furniture, with built-in features to minimise damage (whether deliberate or due to wear and tear over time) such as anti-vandal coatings, easy clean surfaces, automatic shock and impact reporting and a frequent inspection and service schedule which exceeds the industry standard. Offensive graffiti will be rectified within 4 hours from acknowledgement of the incident report.

JOLT carefully considered design and functionality to create a safe and secure user experience and reduce opportunities for crime and minimise the fear of crime, eg. perforated base, Plug & Play ready, optional CCTV capability. The screen will operate at just 70% of the maximum allowable luminance levels recommended by the Institute of Lighting Professionals ('ILP'), and images will remain on screen for at least double the guideline residence time, reducing the impact on residential amenity and biodiversity.

The location of the JOLT unit has been carefully selected to enhance the amenity of the highway and provides a beneficial service to the general public through the allotment of time for LB Barnet messaging combined with the provision of EV charging.

#### **LB Barnet Local Plan (Development Management Policies) Sept 2012 - Policy DM02: Development Standards**

The development standards set out in Policy DM02: Development Standards are regarded as key for Barnet to deliver the highest standards of urban design. JOLT's unit will be sited in locations that meet or comfortably exceed the minimum pavement widths specified in Part III of the Disability Discrimination Act 1995 (DDA). The design of the JOLT unit has been modified to reflect feedback from Barnet's Community Safety Team and representatives of the Metropolitan Police Force.

#### **LB Barnet Local Plan (Development Management Policies) Sept 2012 - Policy DM03: Accessibility and inclusive design, Motability User Engagement Report, LB Barnet Lifetime Neighbourhoods Vision**

JOLT's unit meets the highest standards of accessible and inclusive design, meeting the following principles:

- It can be used safely, easily and with dignity by all regardless of disability, age, gender, ethnicity or economic circumstances. The unit supports neurodivergent and other accessible text formats, NaviLens, multilingual communications, free charging and digital out-of-home communications, reaching those in digital poverty or who may be excluded for other reasons.
- The unit is convenient and welcoming with no disabling barriers, so everyone can use it independently without undue effort, separation or special treatment. Each JOLT unit location has been assessed with residents and those with accessibility needs in mind. The JOLT Unit incorporates the findings of the Motability User Engagement Report for hardware and the built environment.

- The screen function on the unit is flexible and responsive, taking account of what different people say they need and want, so people can use it in different ways – eg. air pollution information, wayfinding, public health information displayed in languages relevant to the local community, with unsold inventory donated to hyper local small businesses.
- The JOLT offering is realistic, offering more than one solution to help balance everyone's needs, recognising that one solution may not work for all. For example, the free charge element is available to all users who wish to charge an Electric Vehicle. Should the user decide to stay connected longer and enter the paid-for charge period, JOLT will always offer a competitive market rate.
- For those without an Electric Vehicle, the JOLT unit still offers value to the local community via reduction in air pollution, public service communications, air quality monitoring, Emergency Messaging Services etc.

JOLT incorporated extensive feedback from the Motability User Engagement Report into its product design (link: [user-engagement-report-accessible-ev-charging-motability.pdf](#)).

Key features include:

- Tethered charging cable, connected to the unit
- A lighter, more manageable 25kW DC cable, making it easier to handle for all users
- A counterbalance mechanism, meaning the driver does not carry the weight of the charging cable
- A pullback mechanism to ensure the cable returns to the unit and not be left trailing
- Longer charging cable length to reach all possible charging port locations on an EV. This allows EVs to park in the direction of traffic with no need to manoeuvre the vehicle or park facing oncoming traffic
- Designed for single handed use; no awkward flaps to lift, no twisting motion required
- A downward facing light above the cables (which automatically activates when dark) to improve visibility, reduce vandalism and create a safer feeling space for users

Most EV charging hardware incorporates one or more of these features; the JOLT unit is the only commercially available charging hardware which incorporates every one of these key feedback points into its charge point design.

In addition, the communication displayed on the JOLT unit will comply with, or exceed, the regulatory standards regarding content, and can be sensitively tailored to hyper-local needs. The JOLT screen is neurodivergent- and accessibility-text enabled. The JOLT unit works with the NaviLens system, helping blind or visually impaired people to access and locate information and interact more easily with the environment around them.

LB Barnet Lifetime Neighbourhoods Vision requires all new infrastructure to be inclusive, providing the same levels of access to all users whilst being economically and environmentally friendly. The JOLT unit fulfils all of these requirements by providing equitable and sustainable EV charging, with a free allocation of daily charging for every user, encompassed within street furniture that is accessible and future-proofed.

## **Barnet's Our Plan 2023-2026**

Barnet's Our Plan outlines a new vision for Barnet, which puts Caring for People, Places and the Planet at the heart of everything the Council does. JOLT's charging point supports all key elements of Our Plan, helping turn this new shared vision into reality.

Caring for People aims to support all residents, particularly disabled people and older citizens, and enable them to live well as part of a supportive community. JOLT's electric vehicle charging point was designed using the findings from the Motability User Engagement Report which showed a preference for tethered cables that are easy to manage, and a pullback mechanism to prevent the potential trip hazard from trailing cables, adding features such as additional lighting to improve safety, and allowing inclusive Council messaging with neurodivergent and multilingual text functionality.

Barnet's drive to ensure Council services are easily accessible to all is reflected in An Engaged and Effective Council. The JOLT charging point supports these aims by providing the Council with a means of engaging, at zero cost, with more residents to communicate important, relevant and timely Council messaging.

Caring for Places sits at the core of the Council's strategy. The provision of a JOLT charging point, with a free 7kW charge per vehicle, per day, will encourage visits to high street locations and encourage spend in the local economy. The provision of free charging will encourage the transition to Electric Vehicles, reducing pollution in the worst affected areas on the high street and main roads and improve air quality for residents and visitors.

Caring for the Planet is a key tenet in Our Plan. JOLT's electric vehicle charging point is a tangible action to help LB Barnet respond to the climate emergency and actively support the journey to becoming a net zero Council by 2030 and a net zero Borough by 2042.

## **LB Barnet Local Plan (Development Management Policies) Sept 2012 - Policy DM04: Environmental considerations for development**

The JOLT unit's primary function is an Electric Vehicle Charge Point, which directly contributes to improved air quality and the reduction of carbon emissions by supporting the transition to Electric Vehicles. Air quality monitoring equipment can be fitted to the unit, providing data to measure and improve air quality in LB Barnet.

Key References • Air Quality Action Plan, LB Barnet • London Heat Map for Barnet, May 2010 • London Plan, 2011 • National Planning Policy Framework • Sustainable Design and Construction SPD

## **LB Barnet's Long Term Transport Strategy 2020-2041, LB Barnet Air Quality Action Plan - Points 5, 13 and 21, LB Barnet Sustainability Strategy Framework, LB Barnet Climate Emergency May 2022**

LB Barnet Long Term Transport Strategy 2020-2041 and LB Barnet Air Quality Action Plan (points 5, 13 and 21) highlight the need to switch to sustainable vehicles and have the infrastructure in place to support this. LB Barnet's Sustainability Strategy Framework mandates the need to drastically increase the number of EVCPs in the Borough by 2030 to cater for these vehicles.

LB Barnet declared a Climate Emergency in May 2022. LB Barnet's partnership with JOLT will provide reliable, cost-effective charging infrastructure for residents with no access to off-street parking,

visitors to the area and commercial vehicles. LB Barnet encourages the installation of public EVCPs with incentives to encourage a behaviour change. JOLT provides 7kW of free charging to every user, every day, to incentivise the switch to Electric Vehicles. This is further supported by the political administration's manifesto, which set the target of rolling out over 1,200 new charge points by 2030.

**Safer Places: The Planning System and Crime Prevention (2004), LB Barnet Local Plan (Core Strategy Policies) Sept 2012 - Policy CS12, LB Barnet Community Safety Team**

LB Barnet is one of the safest Boroughs in London, but crime and anti-social behaviour remain a key concern of local residents. The design of JOLT's hardware was modified after feedback from the Metropolitan Police and the Community Safety Team to better reflect the principles of Secured by Design, the official UK Police flagship initiative for 'designing out crime'.

Policy CS12: Making Barnet a safer place. JOLT's multi-lingual public access screens, with options for neurodivergent text, and the incorporation of NaviLens technology, helps Barnet grow as a place where people from different communities get on together. JOLT's hardware was modified to reflect security and community safety measures following feedback from the Metropolitan Police and the Community Safety Team. The unit now includes a perforated base, allowing visibility through the unit at ground level.

JOLT's unit is designed with forward-looking capabilities to support drivers well into the future. Plug & Charge capability will be enabled as the technology becomes mainstream, allowing payment without the need to use a smartphone or contactless card on the street. In addition, the JOLT screen will display community information campaigns and Emergency Messaging Systems ('EMS') to improve community inclusion, cohesion and safety. The JOLT unit can be CCTV enabled, at the request of LB Barnet, to provide additional security coverage of the local streetscape.

JOLT is a Cyber Essentials certified organisation, minimising the likelihood of a data breach or cyber-attack, to help keep individual users and the Local Authority protected from cyber-crime

All of these measures demonstrate how JOLT incorporates design principles which contribute to community safety and security in all new development, promoting safer streets and public areas.

Key References • Annual Residents Survey 2008 • Asset Management Plan, Metropolitan Police, 2007 • Barnet Crime, Disorder and Substance Misuse Strategic Assessment, 2010 • Infrastructure Delivery Plan • Making Barnet Safer – Safer Communities Strategy for Barnet • Safer Places – the Planning System and Crime Prevention, CLG, 2004

**National Planning Policy Framework (paras 93 to 104), LB Barnet Sustainability Strategy Framework, Carbon Emissions Reduction Action Plan, LB Barnet Local Plan (Core Strategy Policies) Sept 2012 - Policy CS13: Ensuring the Efficient Use of Natural Resources, Sustainable Design and Construction and Green Infrastructure, LB Barnet 2017-2022 Air Quality Action Plan, The London Plan (2021) - Policy S1.2: Minimising Carbon Dioxide Emissions, The London Plan (2021) - Policy GG3: Creating a Healthy City**

Climate change is one of the greatest challenges the world is facing. A key priority for LB Barnet is to reduce the Borough's carbon footprint where possible, whilst conserving and enhancing character of the area.

Reducing carbon dioxide emissions to sustainable and equitable levels, in line with national energy and climate change targets, has to be addressed through behaviour change by citizens, public services, and businesses. Actions include the switch to Electric Vehicles supported by competitive and reliable charging infrastructure, which is fully supported by this planning application.

National planning policy on climate change and flooding is set out in the National Planning Policy Framework (paras 93 to 104).

LB Barnet's Core Strategy Policy CS13 highlights the key objectives with regard to Natural Resources, namely reducing carbon dioxide (CO<sub>2</sub>) emissions, adapting to future climate change, ensuring developments are energy efficient with resource use kept within acceptable levels, promoting biodiversity and improving quality of life.

The LB Barnet Local Plan attributes the majority of pollution within LB Barnet to vehicles; high levels of air pollutants are concentrated around major roads which impacts current and future housing growth. This link between pollution and residential areas demonstrates the risk to residents whilst living, working in and commuting to the Borough. The London Plan 2021 reflects this view, with policy GG3 focused on reducing air pollution and creating a healthy city. The JOLT unit enables a switch to cleaner, emissions-at-tailpipe free vehicles, improving air quality and contributing to a future of zero emissions.

LB Barnet declared an Air Quality Management area in 2001 for exceeding the annual and 24-hour mean limits of Particulate Matter (PM10) and Nitrogen Dioxide (NO<sub>2</sub>). These findings, in line with pollutant exceedance across the entire city of London, create a need for schemes and projects to substantially reduce those levels. The rollout of publicly accessible EVCPs introduced as part of the LB Barnet 2017-2022 Air Quality Action Plan to create a cleaner, more sustainable Borough, is a key action to support this policy

LB Barnet and the Energy Saving Trust are working to reduce carbon emissions and energy use across all local authority energy related activities. Key objectives of the action plan are to promote sustainable energy use by the community and to raise awareness and encourage action on climate change amongst residents, businesses and staff.

By its nature, the JOLT unit will directly contribute to reducing CO<sub>2</sub> emissions by supporting the transition to Electric Vehicles by way of competitive and reliable public charging infrastructure. JOLT's hardware has been designed with environmental considerations at the forefront. The "best in class" double-sided LCD screen is designed to use the lowest amount of energy for optimal performance. The screen runs at just 70% of the permitted luminance levels to reduce impact on biodiversity and residential amenity, with integral energy saving features such as ambient light adjustment and lower than average power usage. The entire JOLT unit will be powered using independently certified 100% renewable energy.

Key References • Air Quality Action Plan, LB Barnet • Barnet Carbon Emissions Action Plan, 2009 • Barnet's Environmental Policy – A Greener City-Suburb, 2008/09 – 2011/12 • Barnet Waste Prevention Strategy 2005 – 2020, 2005 • Cleaning London's Air – the Mayor's Draft Air Quality Strategy, 2010 • London Plan, 2011 • National Planning Policy Framework • Sustainable Design and Construction, SPD

**LB Barnet Local Plan (Core Strategy Policies) Sept 2012 - Policy CS15: Delivering the Core Strategy**

JOLT will work in partnership with LB Barnet to help deliver the vision, objectives and policies of this Core Strategy. We will ensure that necessary infrastructure is secured and delivered in time to support Barnet's consolidated growth and development and provide the facilities needed for the Borough's communities.

### **LB Barnet Local Plan - Sustainable Design and Construction SPD**

The LB Barnet Local Plan states that infrastructure lighting requires unobtrusive, anti-glare considerations, with the ability to control the lighting remotely as set out in the Sustainable Design and Construction SPD. JOLT's integral double-sided LCD screen operates with a maximum luminance of 3,500 NITS (equivalent to 3,500 cd/m<sup>2</sup>), well within the Institute of Lighting Professionals ('ILP') guidelines, which give a maximum luminance level of 5,000 NITS for digital out-of-home display screens. In addition, the JOLT screen will adjust to ambient light settings, providing the perfect balance between power usage and visibility. The advertising content displayed will be on screen for a minimum of 10 seconds (double the ILP guideline of 5 seconds) and content will transition using smooth fade settings to avoid distraction.

### **The Mayor's Transport Strategy (2018) - Policy 7**

The Mayor, through TfL and the boroughs, and working with stakeholders, will seek to make London's transport network zero emission by 2050, contributing towards the creation of a zero-carbon city, and also to deliver further improvements in air quality to help meet tighter air quality standards, including achieving a health-based target of 10µg/m<sup>3</sup> for PM2.5 by 2030. London's streets and transport infrastructure will be transformed to enable zero emission operation, and the switch to ultra-low and zero emission technologies will be supported and accelerated.

JOLT's partnership with LB Barnet is in direct support of this Policy.

### **The London Plan 2021, Policy 7.2**

The London Plan 2021 details a ubiquitous vision and policy for 'good growth' across the city and requires each Borough to implement similar strategies to support sustainable development through Policy 7.2. JOLT's unit provides fair, equitable and reliable charging infrastructure which supports the improved public transport infrastructure aimed at the heart of the framework.

### **From the LB Barnet Draft Local Plan Reg 19 2021-2036 and Barnet Growth Strategy 2020-2030**

#### **Policy TRC02 – Transport Infrastructure**

The Council will promote delivery of new transport infrastructure to support the travel needs of a growing population. It will provide a range of alternative travel modes and facilitate growth as set out at Policy GSS09 and Policy GSS11. The Council has an adopted Long Term Transport Strategy (2020-2041). It will work with Highways England, TFL, Network Rail and others to deliver schemes identified within the BLTTS (Barnet Long Term Transport Strategy) document, including:

- To deliver and promote infrastructure for electric or other ultra-low emission vehicles

JOLT's partnership with LB Barnet is in direct support of this Policy.

### **Policy TRC04 – Digital Communication and Connectivity**

Smart technology has the ability to provide transformative change and through technological innovation, assist in addressing many of the challenges of development. JOLT's Unit supports many of the initiatives and action points in TRC04, using technology, concepts and systems to, amongst other things:

- Improve the quality of life of local people and Londoners through air quality monitoring, and encouraging preventative health initiatives in the community. JOLT's Unit can be enabled to function as an air quality monitoring unit, with data being automatically provided to LB Barnet.

- Create and capture economic, social and environmental opportunities by:

- i. providing new opportunities for business. JOLT will donate all unsold advertising inventory to small local businesses, allowing them to utilise digital out-of-home advertising at zero cost. The provision of a fixed allocation of 7kW free charging will give more opportunity for users to spend in the local economy as their vehicle charges.

- ii. providing better communication and community safety initiatives (eg. CCTV) to help create more cohesive and inclusive communities. JOLT's Unit can be CCTV enabled at the request of LB Barnet. JOLT's screen has a built-in sensor which immediately notifies any shock or impact relating to vandalism or impact.

The JOLT Unit is Cyber Essentials certified, reducing the risk to individual, community or Borough-level harm due to cybercrime.

### **Summary**

JOLT has conducted a thorough review of Planning Policy and Initiatives from National Planning Policy Framework, through Greater London level specific policies and across the LB Barnet Local Plan for Core Strategy Policies, Development Management Strategy Policies and Barnet's Our Plan 2023-2026. In addition, JOLT has reviewed the latest version of the LB Barnet Draft Local Plan 2021-2036 and Barnet Growth Strategy 2020-2030 and referenced relevant policies which come to the fore in these documents. JOLT acknowledges the importance of a wide range of regional and local initiatives, with references to support those policies currently in place. The JOLT unit will bring positive social, economic and environmental outcomes to deliver sustainable development in partnership with LB Barnet.

### **6. Summary**

JOLT has thoroughly researched and designed this site, with consideration for the existing built environment and the need for an Electric Vehicle Charge Point facility at the location. This application complies with relevant Planning Policy, guidelines and local initiatives to provide new community infrastructure to support the reduction of vehicle emission pollution in the London Borough of Barnet.