

Connected and Autonomous Vehicles: guidance for London trials

July 2019

Notes to reader

This guide:

- Aims to promote responsible and safe Connected and Autonomous Vehicle (CAV) trials in London
- Outlines Transport for London's (TfL's) expectations of all organisations planning trials of CAVs on public roads and other public places in London
- Should be read in conjunction with:
 - The Department for Transport's (DfT) [Centre for Connected & Autonomous Vehicles' \(CCAV's\) Code of Practice: Automated vehicle trialling](#) (February 2019), which outlines the national legal framework and expectations of those wishing to trial CAVs in the UK. We expect all CAV trialling organisations to observe and comply with this code at all times and adhere to it in its entirety
 - The [Mayors Transport Strategy](#)
 - [TfL's CAV Statement \(July 2019\)](#)
- Remains the property of TfL. It has been developed in consultation with London Councils and the London boroughs who share many of the same responsibilities and interests as TfL, as well as other key stakeholders
- Will be updated regularly to ensure it continues to reflect legislation, best practice and the interests of the public
- Reflects TfL's views in relation to trials of CAVs in London. Any other use beyond a trial, such as commercial deployment, will be addressed separately at the appropriate time
- Does not constitute legal advice on CAVs. Adherence to its content does not equate to TfL approval or endorsement of any trial procedures, processes or vehicles. TfL has no liability in relation to private organisations' failure to follow any legislation and/or regulatory frameworks in relation to CAVs

Introduction

Thank you for downloading the TfL Connected and Autonomous Vehicles: guidance for London trials. This has been written in consultation with London Councils and the London boroughs.

The DfT's [CCAV Code of Practice: Automated vehicle trialling](#) (February 2019 – the CCAV Code of Practice) outlines the national legal framework and expectations of those interested in trialling CAVs in the UK. We fully support the CCAV Code of Practice and expect all CAV trialling organisations to adhere to it in its entirety.

The CCAV Code of Practice says that trialling organisations should engage with all relevant organisations with responsibility for the trial area at the earliest opportunity. In the case of London, there are multiple organisations with responsibilities, including the London boroughs. With CAV trials increasing in London, this guide sets out, on behalf of those stakeholders, TfL's expectations of those considering CAV trials in London in addition to what is stated in the CCAV Code of Practice.

Due to our legal duties, responsibilities and commitment to delivering the Mayor's Transport Strategy, we are engaging with CAV trialling organisations to understand the mix of opportunities, risks and challenges they present. It's essential that we, and the London boroughs, have the information we need to fulfil our duties and responsibilities, and that we have the opportunity to ensure trials develop in a way that is consistent with the Mayor's Transport Strategy policies and proposals, which includes the promotion of walking, cycling and public transport.

It is expected that all organisations trialling CAVs in London will adhere to this guide, in conjunction with all appropriate legislation and codes of practice.

Working together

We, along with London Councils and the London boroughs, want to establish collaborative and consistent ways of working with all organisations interested in trialling CAVs in London. We work closely with [London's 32 boroughs and the City of London](#) to integrate transport planning and operations across the Capital and fulfil our respective duties when it comes to keeping London moving and ensuring the safety of our networks and customers. We will continue to work together in this way to manage CAV trials in London, with TfL providing an initial point of contact, coordinating with the relevant boroughs when more information is known. As a public authority we will provide fair and impartial information to all, with the purpose of ensuring that safety remains a top priority and the best interests of all Londoners have been reflected in your plans. We will also ensure anyone considering CAV trials in London understands and is prepared for its

geographical complexity, and the multiplicity of authorities with responsibilities for the road network in London, including the various highway agencies (including the 32 London boroughs and City of London) and other stakeholders. TfL will provide a coordinating role in notifying and connecting CAV trialling organisations to these varied stakeholders as required.

Establishing contact

As stated in the CCAV Code of Practice, if you have selected London as an area of interest for conducting CAV trials, you will need to make contact with those who have responsibility for the land you intend to trial on. It can be challenging to understand who all the necessary London stakeholders are but, by engaging with us at the earliest opportunity, we will help you to coordinate your engagement for London ensuring you are introduced to all the local contacts and that a consistent approach is taken. Please contact cav@tfl.gov.uk at the earliest opportunity.

Once in contact, we will explain how we hope to work together and who else will need to be involved, for example, the relevant London borough(s). This guide will allow organisations to appropriately prepare in advance of the collaborative relationship we hope to build. We appreciate you may not have all of the information about your trial at the time you make contact. Even informing us of your intent to conduct a CAV trial is sufficient as it gives us time to appropriately prepare and support you with adherence to this guide.

What you will need to tell us

Trial logistics

TfL and the London boroughs have a network management responsibility to ensure the safe and efficient movement of goods and people on all roads in London. We are responsible for ensuring safe and reliable services are provided to the public. To meet these duties and responsibilities we need to understand the impact of your activity on the network.

As your plans develop, you will need to inform us of details including, but not limited to, the following:

- Vehicle details – vehicle numbers, registration plates, branding
- Driver details – number of safety operatives and their location
- Timing details – date, time and duration of trials
- Area details – areas of interest for the trial including depots and garages
- Trial details – aspects of technology or passenger model being trialled
- Communication plans – media announcements

- Emergency contact details – who TfL can contact if one of your vehicles is involved in an incident

The information above will aid our understanding of your plans and allow us to prepare accordingly. We will offer suggestions on how best to share this information with other relevant stakeholders.

Key London stakeholders engaged to date

In order to meet our network management responsibilities, TfL and the London boroughs need to make multiple stakeholders with responsibilities for the road network and its safety aware of any planned activity on London's roads. This is done to ensure appropriate measures are in place to prioritise safety on the network. Such engagement might include the Greater London Authority (GLA), emergency services and road contractors.

To ensure all communications regarding your trial are comprehensive, we will need to understand who else you have already engaged with in London. This will allow us to shape our own stakeholder engagement and inform and support yours, such as the first responder documents advised by the CCAV Code of Practice.

Lastly, it would be helpful to have an understanding of what your long- and short-term objectives are, such as timings for any commercial launch, as these are likely to introduce additional stakeholders.

Standards to be met and permissions to be sought

CAV trialling organisations should note that compliance with all existing UK traffic law and London-specific policies will also apply to CAVs. This includes the use of bus lanes, payment of the Congestion Charge, compliance with the Ultra Low Emission Zone and any other current or future road user and parking charge. Importantly, if a CAV trialling organisation intends to carry passengers, an appropriate licence is likely to be needed which will require appropriate TfL regulations to be met.

Aspects of your trial may require permissions from different parties. Requests for permissions take varying lengths of time to be assessed and some may involve consultation, so we encourage you to engage with us at the earliest opportunity.

If appropriate and within the responsibility of TfL, your point of contact will guide you to obtaining the appropriate application for specific permissions.

Examples of specific permissions that may be needed:

- Carrying Passengers:
 - Passenger safety is of paramount importance to TfL and will be no different in the case of CAVs. If you are considering carrying passengers, you will need to talk to us. Carrying passengers is likely to require a licence as this is a legislative requirement. To obtain a licence will require you to meet specific safety criteria which are in place to ensure passenger safety. There are established ways of applying for relevant licences and conditions to be met. **Your point of contact will not be able to provide specific advice on your licensing requirements** but will ensure you understand who to contact to make applications
- Use of bus lanes:
 - Bus lanes are managed by TfL and the London boroughs. Use of bus lanes often needs to be pre-authorized by the relevant organisation
- [Use of TfL intellectual property/ assets:](#)
 - Our intellectual property/assets, including the roundel, cannot be used by third parties without prior written consent from us. We will impose conditions as necessary. More information is available by following the link
- [Filming in London:](#)
 - Filming in London may require approval depending on the land owner. More information is available by following the link

Transparency with Londoners

CAVs are not widely understood among the public and there is a mix of speculation and misinformation as to what they are, as well as their possible uses and impact. The CCAV Code of Practice says that CAV trialling organisations should develop a public relations and communications strategy which can help with public understanding.

We strongly support the CCAV Code of Practice in this regard and are committed to improving transparency for our customers and stakeholders by making more information available than ever before. We aim to be open and accountable, and encourage all organisations to do the same.

We believe that CAV trialling organisations have a responsibility to be transparent and comprehensive in their communications to support public understanding and assurance. At a minimum, we expect that the following information and reports, in a balanced manner, will be published in an accessible format and made available free of charge.

In advance of the start of any trial(s):

1. General nature of the trial(s) to be undertaken
2. How consideration is being shown to vulnerable road users, as well as any implications for other road users
3. A version of your CAV safety case, which is easily understood by the public and makes plain how the risk to safety has been assessed and the appropriate mitigations that are in place
4. What data is being collected and how it will be processed, in order to make clear how your trial is being undertaken in compliance with data protection legislation. In addition to what is noted in the CCAV Code of Practice this should include, explaining how your trial will comply with:
 - Principles in the General Data Protection Regulation (GDPR)
 - Principles of privacy by design and default
 - Other statutory guidance or Codes of Practice, for example in relation to the ethical use of artificial intelligence

Once you have commenced activity in London, we would expect the following reports to be published within three months of that date in the same way as above. Beyond the initial report, we then expect regular reporting relative to the length of your trial e.g. every quarter for a year-long trial.

5. A London trial report highlighting the performance of your trial(s) in the city, including both progress made and challenges encountered
6. Any other reports, information or updates that you feel would aid the understanding of the public and/or inform policy making

Sharing insights

Policy 23 of the Mayor's Transport Strategy sets out the seven principles we use to assess how prospective new transport services and business models align with Mayoral goals. We encourage all CAV trialling organisations to align with Policy 23, in particular, the sharing of data and knowledge with us, the London boroughs and the GLA to enable monitoring, operating and planning of the transport network

We and the London boroughs are very interested, as part of the collaborative working relationship we hope to establish, to explore these opportunities to share data (operational, not personal) and knowledge. We hope this will allow us to build our understanding of CAV technology, its potential to reduce road danger and other associated opportunities. We already have one of the most

sophisticated traffic management systems in the world and are currently developing it further to ensure it is compatible with future requirements and data sources. CAVs are part of this, and understanding how new vehicle technology could interact with our systems may lead to improved traffic management in London. In addition, insights into how the safety of all road users could be improved and aided by CAV technology would be welcomed as we work towards achieving our [Vision Zero](#) ambition that, by 2041, all deaths and serious injuries will be eliminated from London's transport network.

Both TfL and the London boroughs have data sets and insights which could aid the planning and delivery of your trials and, in return, would welcome any data and insights that can support our [Vision Zero](#) ambition, network management duties and understanding of how this technology aligns with the Mayor's Transport Strategy, and improve our monitoring, operating and planning of the transport network.

Freedom of Information

TfL, as a public authority is subject to the Freedom of Information Act 2000 (FOIA) and the Environmental Information Regulations 2003 (EIR). This means that members of the public can request all types of public information held by TfL and TfL is obliged to supply that information unless a relevant exemption applies. TfL is responsible for determining whether information is exempt under the FOIA or EIR and for determining what information will be disclosed in accordance with the FOIA or EIR. Further information is available at www.tfl.gov.uk/foi.