

CAMPUS USAGE AS A THROUGH ROAD

NOVEMBER 2023

Summary

An Automated Number Plate Recognition (ANPR) system operates on the Cambridge Biomedical Campus as a measure to significantly reduce the use of campus roads as a through road for people not working on or visiting organisations on the campus.

The paper comprises three parts with the aim of understanding the current situation and determining actions for improvement.

Part 1 provides a description of the ANPR system, its context and the responsibilities that exist across different organisation for the operation of the system. This section also notes recent actions taken to improve the effectiveness of the ANPR system, including the automation of data processing.

Part 2 presents data concerning activations of the system and prosecutions from the police, to support understanding how the approach to enforcement is working.

Part 3 sets out recommendations, extending beyond the specifics of the ANPR system to the root issue of rat running within the campus.

1. CONTEXT

- 1.1. The development of phase 2 of the Cambridge Biomedical Campus required the introduction of an ANPR camera system to support the enforcement of prohibition of driving on roads named in the local Traffic Regulation Order (TRO). The ANPR system has been live since it was reintroduced in Spring 2017. The algorithm used by the ANPR system is not made public to avoid gaming of the system by drivers.
- 1.2. In 2017, the TRO was updated to take account of the new Southern Fringe developments. At this time an assessment of rat running on the Campus's roads was carried out. It found that approximately 1,680 vehicles travelled each day between two of the three main entrances to the CBC – Hills Road and Addenbrooke's Road - in less than the time specified in the algorithm used by the ANPR system. Details regarding this algorithm have not been made public to avoid subversion of the system by drivers.
- 1.3. In 2022, CBC Estate Management Company undertook a review to ensure that the ANPR system was operating effectively and was configured in accordance with the legislative requirements of the Police, as the enforcement authority of the TRO. Highlights from this review include:
 - 1.3.1. External verification: an external company, recommended by the Police, were appointed by CBC Estate Management Company to verify the operational performance and set up of the ANPR system. The external company reported that the ANPR system conformed with the requirements of the TRO and the Police.
 - 1.3.2. ANPR parameters: the parameters for car travel across the campus was reviewed by the Police, with amendments subsequently made to the ANPR system in April 2022.
 - 1.3.3. Automation: in September 2022, the ANPR system became fully automated, removing the step whereby Cambridge University Hospitals NHS Foundation

Trust (CUH) were required to process data; data on ANPR activations is therefore now transferred directly from the ANPR provider to the Police.

- 1.3.4. Signage: meetings with the Police and County Council reviewed signage and confirmed it complied with requirements of the TRO.
- 1.3.5. Monitoring: establishing a system for a committee comprising campus partners, dedicated to travel and transport, to monitor the ongoing effective operating of the ANPR system.
- 1.4. In 2023, the Trumpington Residents Association obtained information from the Cambridgeshire County Council concerning the ANPR. This confirmed the responsibility of enforcement being with the Police and identified the sporadic nature of activations being received by the Police from the ANPR system. Insight from the Residents Association indicates that local residents involved with the issue do not believe the level of rat-running has diminished.
- 1.5. **Responsibilities** are spread across a range of different organisations in relation to oversight, processing of data and action resulting from the ANPR system being triggered.
 - 1.5.1. CBC Ltd: is a non profit organisation formed in 2021 comprising the main occupiers of the campus. CBC Ltd has no formal role in the operation of the ANPR system but does provide a route for escalation of concerns from community partners and convening power to support solution building across members and with external bodies.
 - 1.5.2. Prologis: is a company developing land on the campus for life sciences offices and laboratories. Prologis have joint responsibility for the installation and effective operation of ANPR cameras with CUH. Prologis are now wholly responsible for the monitoring and management of the system, following agreement by Prologis, ANPR International and the Police.
 - 1.5.3. CUH: is the largest hospital on the campus, identified as jointly responsible for the installation and effective operation of ANPR cameras with Prologis.
 - 1.5.4. CBC Estate Management Company Ltd: are responsible for managing a large part of the campus estate and are contracted by Prologis to maintain oversight of the ANPR system; this includes weekly review of the operational performance of the ANPR system to check the number of breaches detected.
 - 1.5.5. ANPR International: are the company responsible for providing the Police with data on cars which have triggered the parameters agreed with the Police.
 - 1.5.6. Police: enforce prosecutions based on the activation data they receive from the ANPR provider.
- 1.6. **Limitations:** In considering the effectiveness of the ANPR system, it is important to recognise the inherent limitations for this in deterring the use of the CBC as a through road. At present, it may be that there is no other technology which can successfully identify and penalise people using the CBC as a through road to a greater degree than the ANPR system. With the evolution of technology, this may change over time. It is therefore the case that efforts focused on the ANPR system represent optimising a system which is imperfect in its functional capability for reducing the core problem.

2. ANPR INFORMATION

2.1. Data available on the operation of the ANPR system is twofold:

- 2.1.1. ANPR activations: every time a driver triggers the ANPR system, the occurrence is captured in the ANPR activation dataset. These data are controlled by ANPR

International and shared with the Police to support enforcement. Data on ANPR activations is also shared with CBC Estate Management Company on a monthly basis.

2.1.2. **Prosecutions:** every time the Police issue an enforcement notice based on the activation data they receive from ANPR International, the occurrence is captured on the Police Prosecutions dataset. These data are published on a quarterly cycle by the Police and are in the public domain (see appendix 1).

2.2. **Interpretation:** the variation in the time series prosecution data is noteworthy. Contributions from partner organisations in preparing this paper have highlighted some helpful insights which provide a degree of explanation.

2.2.1. **Automation:** the change in process for automating the transfer of data from the ANPR system to the Police is regarded as having had a positive impact on accuracy of activation and prosecution datasets. This automation did not occur until September 2022.

2.2.2. **Data transfer delay:** there has been a suggestion that in early 2023 there was a problem in the automatic transfer of data concerning ANPR activations to the Police.

2.2.3. **Road closures and road works:** are regarded as having an impact on the level of ANPR activations and therefore prosecutions.

3. NEXT STEPS AND RECOMMENDATIONS

3.1. **Reducing appeal of the campus as a through road:** there are additional actions that can be taken to dissuade car users treating the campus as a through road.

3.1.1. **Signage:** the 2022 review commissioned by CBC Estate Management Company provided assurance that ANPR signage was compliant with what the Police require for enforcement purposes. Discussions have indicated an appetite to explore where the campus can exceed this standard in order to inform and dissuade the use of the campus as a cut through. CBC Ltd will also engage partner organisations responsible for signage outside of the campus to improve visibility to drivers and raise awareness over penalties being enforced for drivers using the campus as a through road.

3.1.2. **Public transport:** part of the problem may relate to the issues of public transport options being able to make journeys to and from destinations which lie either side of the campus. Most of the solutions to this issue are likely to be in the longer term and will relate to aspects of the campus spatial framework being delivered. Nonetheless, there may be more immediate opportunities in this area which will be explored with the input of external travel and transport expertise.

3.1.3. **Sat nav:** the Google Maps sat nav function is currently directing some drivers to use the campus as a route to access Long Road and CAST; this is not an accepted route for students and visitors, but is for staff. CBC Ltd have contacted Google to request their system is updated.

3.1.4. **Design:** as part of our evolution we will want the campus to be a positive environment for staff, visitors and patients. Part of this process is changing the transport network which is car centric in places to one which prioritises walking, cycling and high quality public realm. This shift in approach and design will, as a product, disincentivise cars using the campus as a through road.

- 3.1.5. It is worth noting that the introduction of traffic calming measures on the campus are thought problematic due to the critical role these roads have for blue light services.
- 3.2. **Intelligence on usage as a through road:** the leadership of CBC Ltd and the CBC Travel and Transport group have begun exploring the case for introducing new technology to the campus to provide much richer data concerning the use of the campus as a through road. Appendix 2 includes an example of a system which is being used elsewhere in Cambridge. The case for investment will be considered jointly by CBC Ltd and Prologis.
- 3.3. **Reporting and assurance:** the Transport and Travel Group will look at the quarterly data on prosecutions and reconcile it with the data on ANPR activations. It should be possible to do this with information that is currently produced. The prosecution data can be obtained by the secretariat to the Group; the activation data can be provided by the CBC Estate Management Company. Quarterly calls between CBC Estate Management Company, the Police and ANPR International can provide a route for escalating any unexplained variations between the two datasets or significant changes in either dataset.
- 3.4. **Management of concerns:** CBC Ltd are keen to work as a partner to ensure that concerns of residents are understood and acted on. CBC Ltd can therefore receive escalations and engage with wider campus partners, including those outside CBC Ltd to this effect. This includes facilitating dialogue with members of the community, their political representatives and organisations which have potential solutions to the issues being raised. The campus Travel and Transport Group will serve as an immediate point of operational assurance. CBC Ltd will use its relationship with members of the local community to maintain a current understanding of concerns and the impact of actions being taken.