



Video surveillance briefing Paper: City of Maribyrnong

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Background

This background paper was written to inform the development of the City of Maribyrnong Closed Circuit Television (CCTV) Policy. The paper draws upon both primary and secondary data collected from interviews with key stakeholders in Council as well as a review of over 35 articles from the academic literature. Reports from government as well as grey literature were consulted. CCTV policies from other local governments and academic institutions were used to frame the paper. The goals of this paper are a) to summarise both the international and local evidence as it pertains to the use of CCTV cameras, b) understand the responses made by other local councils to CCTV and c) recognise the legal context that will shape policy development.

In June 2011, the City of Maribyrnong, in partnership with the Victorian Police and as part of a broader set of interventions designed to improve public safety, unveiled 32 fixed and pan-tilt-zoom cameras. The cameras provide a 24-hour live feed of data to the Footscray Police Station and make up what is commonly referred to as the City of Maribyrnong's Public Safety CCTV Camera System ("MCC's Public CCTV System" henceforth).

In addition to the MCC's Public CCTV System, the City of Maribyrnong also operates a number of other video surveillance systems. These systems do not currently feed into the police station; rather, the information they gather is recorded and used as a crime deterrent and to retrospectively gather evidence about crimes committed. These systems (referred to as MCC's Other CCTV System in this report) focus on protecting assets managed by the Council as well as the patrons who frequent them.

An unknown number of private surveillance systems also operate within the City of Maribyrnong, these include large scale sophisticated systems such as those operated by Highpoint Shopping Centre, Vic Roads, Western Health, Public Transport Victoria and Victoria University through to low fidelity passive systems operated by local businesses and residents.

Defining the issue

As surveillance technologies become more sophisticated, so, too, do the applications for which they are used. Surveillance devices are able to locate individuals in a crowd, determine identity, track movements, record conversations, and compile and share this information almost instantaneously. The Victorian Law Reform Commission defines surveillance as 'the deliberate or purposive observation or monitoring of a person or object' (Victorian Law Reform Commission, 2010). The Commission outlines 7 distinct types of surveillance technologies that are commonly used. While this report focuses specifically on video surveillance, some consideration to the other types of surveillance will be given when future technological issues are discussed.

Table 1: Surveillance Technology

Technology	Description
Closed-Circuit Television (CCTV) and camera surveillance	CCTV is a system of connected video cameras that generate live images that are sent to a monitor or recorder. CCTV differs from 'camera surveillance' in that camera surveillance doesn't allow for images to be viewed live; rather, information is recorded for later viewing.
Global Positioning Systems (GPS) and Satellite Technology Tracking mobile phones	GPS technology is increasingly embedded into mobile phones and vehicles to assist with navigation. The nature of this technology means it can also be used to track individuals by third parties. Every mobile phone has an unchangeable electronic serial number (ESN), which, when combined with a phone number, makes the phone easily distinguishable by a telecommunications service provider, enabling the telephone to be tracked over time.
Radio Frequency Identification	RFID is another type of tracking device that enables identification of an object. The technology relies on a small transponder, known as a radio frequency tag, to transmit and receive radio signals to and from a scanner, known as a radio frequency reader. Mobile phones produce a unique RFID, as do e-tags and myki transport cards.
Automatic number plate recognition	Another technology that can be used for location and tracking surveillance is automatic number plate recognition (ANPR). ANPR uses a camera and optical character recognition software to locate a vehicle's number plate in an image of the vehicle and convert the number plate to text. The car's number plate can be matched to a car registration database to identify the car owner or other matters of interest.
Biometric technologies	An example of a biometric technology used in combination with camera surveillance is facial recognition technology, which compares a camera image of an individual's face with images held in a database to determine the individual's identity. Facial recognition is not currently used in the City of Maribyrnong.
Google Earth and Streetview	Google Earth is a free online database of satellite images that provides a bird's eye view of a location, searchable by landmark or address. Google Streetview provides a curb side view of streets and other locations. Google Earth has been used by some local councils to check on illegal pools, buildings and vegetation.

Legislation

While this document is not intended to provide a thorough analysis of the legal framework relating to public place surveillance in Victoria, a brief overview of the pertinent legislation is considered relevant because it; a) helps to understand the context of surveillance within the law; and, b) defines the parameters in which local government has influence.

The goal of legislation and policy is to balance the benefits that arise from public surveillance including crime prevention and investigation, crowd control and improved perceptions of public safety with the risks such as the increased loss of privacy associated with its use.

The Victorian Law Reform Commission describes regulatory regime governing surveillance in public places as piecemeal and with significant gaps (Victorian Law Reform Commission, 2010). The report also notes that while the practice of surveillance in public places continues to grow in Victoria, the law has not kept pace with the expanded capabilities and uses of surveillance devices. The Victorian Surveillance Devices Act 1999, and Information Privacy Act 2000 and the Commonwealth Privacy Act 1988 form the backbone of the legislation that regulates surveillance in public places. The use of surveillance in particular public places such as retail outlets, casinos, and licensed venues are governed by specific legislation, however, unlike other countries, Victorians do not have laws of general application and rely often on a hodgepodge set of non-binding guiding principles to balance the competing interests at stake when surveillance devices are used in public places (Carr, 2014).

Perhaps, and at least in part due to the incomplete policy and legal framework that is set out to govern the use of surveillance in public places, local councils have an important role to play in managing the competing interests of their constituents with regard to video surveillance. While the Victorian and Federal governments fund some CCTV initiatives, local councils are the primary government user of CCTV throughout the state (Carr, 2014; Wilson & Sutton, 2003).

Councils often employ video surveillance devices to protect assets under their management. Surveillance cameras are also regularly requested by other key stakeholders such as police, local residents and businesses to address their concerns around public safety. Increasingly, councils are also dealing with situations where non-council CCTV cameras encroach on public space. Akin to the existing Federal and State legislation, many local council policies are unequipped to respond to the rapidly changing landscape associated with video surveillance (Sarre, 2008).

Given the context defined above, the purpose of this document is to review the current status of video surveillance in the City of Maribyrnong and to outline a set of guiding principles to help the Council manage video surveillance into the future. The document will start with a brief review of the effectiveness of video surveillance. Following that, the current status of Video Surveillance in Maribyrnong will be presented including a discussion of the key local stakeholders. The second half of the paper will focus on discussing the key issues that relate to video surveillance in the City of Maribyrnong and propose a set of guidelines to assist the Council respond to these issues into the future.

Effectiveness of CCTV

The effectiveness of video surveillance as a crime prevention tool has received considerable scholarly attention over the past decade (Armitage, 2002; Bolton, 2015; Cozens, Saville, &

Hillier, 2005). Two theoretical perspectives emerge as a way to frame the impact of video surveillance on public safety. The first is that the presence of surveillance reduces the opportunity for crime due to the increased risk associated with offending (Welsh, Farrington, & Taheri, 2015)(Kelling & Coles, 1997). The second is that surveillance strengthens informal social control and community cohesion that in turn results in improved neighbourhood conditions and a reduction in opportunities for crime (Guest, 1986; Taylor & Gottfredson, 1986).

Several meta-analysis studies suggest that CCTV is more effective in certain locations. For example, (B. Welsh & Farrington, 2008) suggest that CCTV offers a “modest, but significant” overall reduction in crime associated with the introduction of CCTV. The effect size reported in meta-analysis range from 3% (Piza, Caplan, & Kennedy, 2014) to 16%(B. Welsh & Farrington, 2008). However, in a follow up meta-review of 41 studies, the same authors (B. C. Welsh & Farrington, 2009) showed that CCTV was only associated with a significant reduction in crime in car parks, accounting to the majority of the effect size in the combined studies reported earlier. In city and town centres as well as in public housing, the disaggregated data showed a small but non-significant effect on crime. While the effect on crime was larger, in public transport systems it remained non-significant. The research has largely been interpreted to suggest that CCTV is most effective in car parks to prevent vehicle crime but has no impact on reducing violent crimes in other locations (Armitage, 2002).

Other studies, for example (Gill & Spriggs, 2005), suggest that CCTV systems work best in small, enclosed spaces where there is a high density of cameras and when they are implemented in conjunction with other crime-reducing measures. A significant literature exists that explores such “other measures”. A review by (Welsh, Farrington, & Taheri, 2015) shows that improved street lighting, the presence of security guards and place managers (for example parking lot attendants) as well as changes to the built environment to increase defensible space all lead to greater reductions in crime than CCTVs.

Several researchers have pointed to a range of unintended social costs associated with video surveillance in public places. These include privacy concerns (Goold, 2002; Lyon, 2003), displacement of criminal activity (Surette, 2005; Waples, Gill, & Fisher, 2009) as well as feelings within the community that cameras reinforce a fortress society and the social exclusion of marginalized people (Clarke, 2000).

However, and despite the lack of evidence supporting the effectiveness of video surveillance as a crime prevention tool, (Welsh et al., 2015) note that there seems little appetite for reconciling the research evidence with the inexorable growth in the new surveillance systems across Australia. The advantages and disadvantages associated with CCTV systems are summarised in table 2 below.

Table 2: Pros and Cons associated with the implementation of CCTV camera systems

Advantage	Disadvantage
Reduction in crime in some locations (particularly car parks)	Loss of privacy
Associated with an improved perception of safety	CCTV employed over other crime prevention through environmental design interventions that have a stronger evidence for effectiveness

Demonstrates a commitment from Council to “doing something”
Powerful tool in collecting evidence after a crime has been committed

Potential for CCTV cameras to create greater social isolation among some groups
Potential for CCTV to result in crime being diverted to other locations

Perhaps one explanation for the expansion of CCTV, despite actually reducing crime, is that their presence is associated with a significant reduction in the fear of crime. In a large review on the issue (Koskela, 2000) stated that CCTV simultaneously increases feelings of safety and reduces fear of victimization. As noted in an early discussion paper prepared for the City of Maribyrnong by Henley (2006), the biggest success that open-street CCTV is at the political level because their instillation not only leads to increased feelings of safety among users of public space, but it also provides tangible evidence of the work that local authorities are doing to enhance community safety.

What is the current status of surveillance in Maribyrnong?

Due to the lack of regulation, it is almost impossible to determine the extent of camera surveillance in the City of Maribyrnong. The City of Maribyrnong operates 32 cameras in partnership with the Victorian police. These cameras provide 24-hour surveillance of large parts of the Footscray Central Activity District.

The City of Maribyrnong also manages an additional 73 surveillance cameras that are not currently connected to the police system. These cameras focus on protecting assets managed by the Council as well the patrons who frequent them. These cameras are located at the Braybrook Community Hub, Maribyrnong Aquatic Centre, Phoenix Youth Service, Town Hall as well the Council’s Operations Centre.

The City of Maribyrnong also operates mobile surveillance systems that are primarily used to respond to breaches of local laws and address other antisocial behaviour in places not normally covered by other means of surveillance. At the time of writing, only one mobile camera was functioning, however, plans were afoot to purchase additional mobile surveillance cameras (personal communication, 12th April, 2016, City of Maribyrnong staff member).

The use of the City of Maribyrnong Public Safety CCTV Camera System is defined under the “Letter of Understanding for The Operation, Probity Principles and Standards for the Public Safety CCTV Camera System in the Footscray Central Activity District” with Victoria Police. The Council does not have a policy for the use of their Other CCTV Systems.

An unknown number of private surveillance systems also operate within the City of Maribyrnong, these include large scale sophisticated systems such as those operated by Highpoint Shopping Centre (over 300 cameras including a number plate recognition system installed at their car parks), Vic Roads, Western Health, Public Transport Victoria (53 fixed cameras and additional cameras in all transport traveling through the municipality) and Victoria University (over 700 cameras) through to low fidelity passive systems operated by local businesses and residents. Currently, there is no mechanism to monitor the use of private CCTV cameras in the City of Maribyrnong.

What are the key issues for the City of Maribyrnong?

The Maribyrnong City Council's Plan for 2013-2017 outlines the strategic direction for the planning, development allocation of resources and provision of services to the Maribyrnong community. The plan sets out six key priority areas: urban growth, liveability, economic prosperity, transport, environmental sustainability and organizational accountability.

Maribyrnong City Council states that its primary objective is to "promote and protect the wellbeing of our community and to achieve this, we commit to putting all of our people first". This commitment is backed up with a strong focus on upholding human rights as well as ensuring social justice and equity to all.

Safety is also a key issue that cuts across much of the Council Plan. For example, under the Urban growth strategic objective, the Plan lists improving street lighting and the removal of graffiti as being important to the community. A key strategy identified under the Liveability strategic objective is to "improve the city's amenity to create safe, high quality and inviting public places and facilities for all."

Highlighting the Council's focus on safety, "a shared approach to safety in the City of Maribyrnong" outlines a partnership between Victoria Police and Maribyrnong City Council. Again this document highlights the heavily rights-based approach that the council takes in forming its policies. For example, the document states that the "Council is committed to ensuring that Community Safety is not something that is achieved for one section of the community at the expense of others and every effort will be made to ensure that the needs of all community members are considered". The partnership document also outlines the World Health Organization's Manifesto for Safe Communities as a guide, and ensures that "everyone living, working or visiting the City has an equal right to health and safety".

While a strong commitment to Crime Preventions Through Environmental Design is made throughout the Shared Approach document, only one mention of Camera Surveillance is made. While the Shared Approach document pledges to maintain and monitor the existing CCTV network in Footscray it provides no guidance on issues such as expanding the network, integrating with other systems, regulating private surveillance or how to approach the necessary upgrades to existing systems.

What key issues emerge from discussions with stakeholders?

Camera surveillance, and more generally public safety, is a key cross cutting issue for the City of Maribyrnong. Developing a policy around camera surveillance will involve balancing the needs of several diverse key stakeholder groups. At the macro level, the policy must balance the desire for increased public safety with the individual's right to privacy.

Overwhelmingly, people see camera surveillance as a key to advancing safety. During consultations with key stakeholders, the strongest advocates to expand coverage of the current CCTV system are the Police and traders. The Council also receives requests from

members of the local community requesting CCTV cameras in their neighbourhood. Surprisingly, concerns about reductions in privacy associated with expanding surveillance were only raised by one key informant and were dismissed as a non-issue by most.

The key issues that emerged from key informant interviews are presented in table 1 below.

Key informant	Issue
Police (n=2)	<ul style="list-style-type: none"> • Desire to expand camera coverage • Ability to remotely log into other systems • Desire to map existing private cameras
Traders (n=3)	<ul style="list-style-type: none"> • Expand cameras coverage • Clarity about legal responsibilities in operating CCTV
Community (n=4)	<ul style="list-style-type: none"> • Some requests made for cameras to respond to public nascence • No mechanism to make complaints about privacy infringements • How to update existing (passive) system • Whether or not to expand CCTV
Council (n=12)	<ul style="list-style-type: none"> • Role in guiding developer's use of cameras • Using cameras in the Little Saigon car park development • Can the council use its building code or business licensing to better regulate the use of private cameras? • The role of Local government in advocating to State government

How can the City prepare itself for new and emerging technology?

Another major issue that the Maribyrnong City Council needs to consider is the rapidly expanding potential for new types of surveillance. Until recently, CCTV systems required human operators to physically monitor screens and make decisions about what or who to focus on. However, recent advances in software now allow systems to run autonomously based on a set of parameters and algorithms determined by their controllers (Temperton, 2015).

Similarly, currently available unmanned drone technology allows huge geographical areas to be surveyed by multi camera planes flying several kilometres in the sky. Such systems mean that one never knows if they are potentially being watched (Wall & Monahan, 2011).

As mobile phone use becomes ubiquitous, opportunities for new surveillance also emerge (Teixeira, Jung, & Savvides, 2010). As discussed above, technology built into mobile phones allow for people's locations to be monitored through GPS, ESN and RFID. Already, advertising agencies are experimenting with these technologies to display personalised content to people based on their digital footprint.

Social media also provides new opportunities for surveillances. The recent mêlée that occurred in Federation Square on the 14th of March offers an interesting insight into the role of social media in both surveillance and organization (Calligeros, 2016). While many are

calling for the need to expand surveillance systems in order to respond more quickly to similar events, a number of observers have noted that more targeted monitoring of social media would've been more effective as it would allow for several hours of warning of the impending situation (Houston & Mills, 2016).

While many of these forms of surveillance will fall outside the remit of local government, it is critical for the Maribyrnong City Council to invest time and resources to stay abreast of the quickly evolving surveillance landscape. Given the importance that the Council places on upholding human rights, it is possible that the Council may play an important role in protecting its residents and visitors from encroaching forms of surveillance in the future.

Towards developing a policy

What is the scope of the policy?

Considerable discussion has focused on defining the scope of the CCTV policy. At its broadest, the policy could attempt to regulate CCTV within the municipality. For example, this could include setting up a registry of CCTV systems, regulating the use (or non use) of CCTV through the building code or business licensing regimes. A narrower framing of CCTV would see the policy concerned only with how the Maribyrnong City Council utilizes CCTV on, in, or around its own assets.

Following discussions with key stakeholders, a consensus was reached that, due to the existing Public CCTV System in the Footscray Activity Centre, the CCTV policy needs be broad enough to encompass both MCC's Public and Other Systems. An approach where Council would regulate the use of CCTV on private property including setting up a registry of CCTV systems or controlling the use of CCTV through local laws, building or business permits would be resource intensive and arguably beyond the remit of local government.

What are important contextual aspects of the policy?

It was agreed by all stakeholders that the primary goal of the CCTV is to contribute in creating safer communities through reducing crime and anti-social behaviour. Given this context, it is critical that the use of CCTV be assessed against other crime prevention methods including those covered by Crime Prevention Through Environmental Design (CEPTD) to determine the most effective intervention. It was also agreed that use of CCTV must comply with State and Federal legislation.

What are the criteria for the use of visual surveillance?

Significant discussion revolved around determining criteria for the use of CCTV. As stated above, the current policy is only concerned with CCTV that is directly funded or managed by the Maribyrnong City Council with the explicitly goal of reducing crime and anti-social behaviour. The second agreed criteria is, that CCTV should only be used when council is satisfied that alternative methods such as social development and Crime Preventions Through Environmental Design have been exhausted.

Policy Direction and Recommendations

A new Policy is necessary to help the Council address a number of key issues pertaining to CCTV. These issues include:

1. Ensuring consistency between the use of all CCTV systems managed by the Maribyrnong City Council
2. Informing decisions about major upgrades to the current CCTV system before adding additional cameras
3. Informing decisions before major revisions to the current MoU between Maribyrnong City Council and Victoria Police
4. Ensuring consistency around operational issues involving CCTV. Including, the use and storage of data, signage, and privacy.

It has been proposed that a CCTV Project Control Group should re-establish a series of tools and decision matrices that will determine the criteria and decision making framework.

- 1) It is recommended that the CCTV Project Control Group be tasked with developing two key pieces of work. The first piece of work will be a communication plan designed to increase the public's understandings about the use of CCTV cameras in Maribyrnong. Throughout the development of the Policy it became clear that there is a large discrepancy between the communities (and many council staff's) perception of safety and the actual safety benefits that CCTV cameras provide. The communication campaign will help inform the community about the location of cameras, their impact on public safety as well as people rights under the various privacy legislations.
- 2) The second piece of work is the development of a series of guides designed to help implement the policy. These guides will focus on specific details within the policy, such as time frames around the provision maintenance and CCTV system upgrades. The other documents include The development of The Technical Specifications Document that will outline a minimum set of technical standards that equipment used in Council CCTV systems must reach. The technical specifications document should also outline a reasonable life expectancy for various elements of the CCTV system and suggest a plan for future upgrades. The Action to Access Data Form which will be used for all requests for data from the CCTV System. The Case for Expansion Template, which will be used to assess whether a proposed upgrade or new CCTV system should be implemented. The Case for Expansion Template will cover off the following issues:
 - A comprehensive appraisal of the severity, frequency and location of the incidence being targeted
 - A detailed explanation outlining the case for CCTV
 - Evidence that CCTV is necessary to accomplish the outlined objectives.
 - Evidence that the objectives outlines cannot be achieved by other means.
 - A Social Impact Assessment

Conclusions

Maribyrnong City Council has an existing Footscray based Public CCTV System which was established in 2011 as well as CCTV on many, but not all, of its Council buildings and assets.

The existing public system is highly valued by the local police who have used it successfully to support police operations. The stakeholders involved in this consultation predominately see CCTV as a valuable tool in protecting the assets of council as well as assisting police to conduct their work within the municipality. Few people expressed concern for reduced privacy associated with increasing surveillance

For many people CCTV surveillance seems an intuitive answer to preventing crime and making them feel safer. It can be a difficult position to challenge when the perceived advantages of CCTV are so concrete, while the trade-off so abstract. It is very easy for people to understand the advantages associated with being able to retrospectively gather evidence when a crime has been committed, it makes people feel safe; however it's much harder to comprehend the effect on slowly losing one's sense of privacy, the feeling of the State encroaching on one's personal space. Alternatively, it is possible that people simply don't place as much importance on privacy as they once did rendering the arguments against CCTV less omnipresent (R. Clarke, 2005).

So whilst there is popular support for CCTV this needs to be balanced against research findings that show a lack of evidence for CCTV's effectiveness in reducing crime and anti-social behaviour. In fact the universal approaches of crime prevention through environmental design and place making have more effective and sustainable impact on crime prevention and perceptions of safety and are within the remit of local government.

A proposed CCTV Policy will be critical to provide a robust framework for the operation of the current system as well as established process for the assessment and decision making if there is a proposed expansion of the existing CCTV public system.

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