

CM13.6. Lavington CCTV Concept Plans

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Purpose of Report

To provide Council with an understanding of concept plans and the cost estimates for provision of a public Closed Circuit Television (CCTV) system in the Lavington Central Business District (CBD), and to seek endorsement to monitor and apply for suitable grant funding opportunities and the proposed solution.

Background

On 22 June 2015, Council endorsed the purchase, installation, maintenance and evaluation of a public CCTV system in the Albury CBD for a total cost of \$729,905. The CCTV system was jointly funded between AlburyCity and the Federal Government under a Safer Street Grant, which became operational in December 2017.

The *Public CCTV Program Evaluation Report (2018)*, subsequent community surveys, and feedback from the Police, indicate the system had been operating successfully and was achieving the objectives of decreasing the rate of criminal behaviour, supporting police operations and increasing community satisfaction relating to community safety.

At the 27 August 2018 Council Meeting, Council endorsed the *Public CCTV Program Evaluation Report*, including recommendation four, that CCTV in the Lavington CBD precinct be further investigated and reported to Council.

Subsequently, at the 26 August 2019 Council Meeting, Council endorsed the outcomes of the *Lavington CBD Crime Safety Review*, where Council resolved to:

- a. Further investigate the development of a CCTV system in the Lavington CBD and allocate up to \$25,000 at September budget review to engage a consultant to prepare concept plans and cost estimates;
- b. Receive a further report on the consultant's findings;
- c. Continue monitoring the release of the *Community and Small Business CCTV Fund* grants or similar, which may provide organisations and business operators in the Lavington CBD opportunity to seek assistance for the supply and installation of CCTV systems on their premises; and
- d. Not pursue the placement of mobile CCTV cameras at roundabouts in Lavington and North Albury.

This report is in relation to part (a) and part (b) of this resolution.

Consultant Engagement

On 4 May 2020, the tender for Contract No. 19/04649 – *CCTV Lavington Central Business District – Concept Plans and Cost Estimate* was awarded to Matryx Consulting for the lump amount of \$21,120.00 including GST.

Council's budget allocation for the project was \$25,000 including GST.

Matryx Consulting has extensive experience with design and deployment of public street surveillance across local government and assisted with the implementation of the CCTV Albury CBD project.

Matryx Consulting carried out detailed investigations and stakeholder consultation to produce the *Lavington CCTV Concept Plans and Cost Estimates* (the Report) (refer Attachment 1).

The proposed solution detailed in the Report outlines options for the placement of cameras according to potential geographic zones and proposes the extension of the existing CCTV system in the Albury CBD for connecting and monitoring the Lavington CBD.

Issues

Site Context

In consultation with senior members of the Murray River Police District (MRPD) and Council representatives, three key surveillance zones were identified and prioritised for CCTV coverage in Lavington. These are based around the primary roads of Wagga Road, Griffith Road, Urana Road and Mate Street.

The delivery of the project can be staged in zones, depending on the availability of funding. This supports the achievement of key deliverables earlier without having to complete the entire project, yet still meets specific policing needs including the potential to satisfy community expectations.

The map shown in Figure 1, highlights the proposed Lavington camera zones and is available in Attachment 2.

Figure 1. Proposed Lavington Camera Zones



The three surveillance zones are:

1. Zone 1 highlighted in red, incorporates Mate Street and Wagga Road beginning at Tarakan Avenue and ending north-west into Kaylock Road – *Highest Priority*.
2. Zone 2 highlighted in green, incorporates Urana Road north from the Lavington five-ways intersection ending at Breen Street with an extension into Sanders Road and Buchhorn Lane - *Medium Priority*.
3. Zone 3 highlighted in blue, encompasses the major retail shopping centre bound by Griffith Road, Breen Street and Prune Street, extending south-west into Sanders Road – *Lowest Priority*.

Due to the policing requirements in the Lavington CBD, the highest priority for project delivery was allocated to Zone 1, as live camera surveillance in this zone will give Police greater capacity to monitor vehicle movements relating to motor vehicle theft. Zone 3 was identified as the lowest priority for project delivery, as Police currently have remote access to CCTV footage from various business operators located within this triangular area.

Site Connections

Matrix Consulting has proposed extending the existing public CCTV system in the Albury CBD to also monitor the Lavington CBD. This utilises infrastructure already in place at existing monitoring points,

located both at the Albury Police Station and Council offices. Consequently, the Lavington CCTV system would require network connectivity to the Council Administration Building in Kiwa Street.

To achieve this outcome all cameras installed in Lavington would be connected to the Mirambeena Community Centre (MCC). This is the closest point from the identified surveillance zones to where existing high-speed and high-capacity network connection is available. As the MCC is the designated Disaster Recovery Centre for AlburyCity, any improvements made at this facility will consolidate Council infrastructure.

The consultant has suggested two options for connecting to the MCC, using either a new wireless network or installing fibre optic cabling from each camera location.

1. Wireless Network:

A wireless network allows devices to connect to each other utilising radio waves to transmit data to a centralised hub. CCTV systems are commonly operated using wireless network connectivity, particularly for public surveillance that is managed by local governments. Examples of metropolitan local governments that use a wireless network for CCTV surveillance include Brisbane City Council, Footscray City Council, Leederville City Council and Hume City Council.

2. Fibre Optic Cabling:

Fibre optic cabling carry communication signals using pulses of light across long distances trenched underground. This method of data transfer is used extensively by AlburyCity where locations are known not to change. The existing CCTV system in the Albury CBD operates using fibre optic cabling.

The following table provides an overview of the comparison between the two connection options.

FIBRE OPTIC CABLING	WIRELESS NETWORK
Rigid implementation in a defined series	Flexible implementation
Inflexible and expensive to extend system	Easily extended
Increased strength and reliability of connection	Interference losses due to physical landscape changes (buildings, trees)
25-year replacement cycle	10-year replacement cycle
Expensive installation costs	Cost-effective installation

Table 1. Comparison between Fibre Optic Cabling and Wireless Network Connections.

Following extensive consultation with Matryx Consulting and the AlburyCity Information Technology Team, the agreed and preferred option for the Lavington CCTV system is to employ a wireless network connection from camera locations to the MCC because it provides cost-efficiencies, offers greater flexibility and is easily extended.

Design

Preliminary design proposals by Matryx Consulting suggest a total of 13 preferred pole locations with potentially 52 cameras in the system, depending on field of vision overlays to eliminate black spots. There is the potential to utilise existing power light poles to support the CCTV infrastructure, which would reduce costings between \$12K to \$15K per zone. However, full costings have been provided on up to 13 new pole installations.

A potential source of power for each of the 13 pole locations is an un-metered supply, calculated and agreed with Essential Energy. The suitability of solar power as an alternative to mains power was discounted due to the impracticalities of large batteries and the lack of a supply guarantee.

Due to continual technological advancements, determining camera type and other hardware considerations will be made at the time of tender by the Information Technology Team, in consultation with Matryx Consulting, to establish the most appropriate equipment in the marketplace at that time.

While the purpose of the Lavington CCTV system is to provide live surveillance of the area to the MRPD at the Albury Police Station, the network can be used for additional uses in the future, such as Public Wi-Fi, duress systems and public address.

Estimate of Probable Costs

Matryx Consulting have based the estimate of probable costs on indicative unit rates by location. These estimates are subject to variations in the order of +/-10% which includes variables associated with civil works. The total Lavington CCTV implementation cost estimates are provided in Table 2 below.

	<i>Recommended</i>	
Location	Wireless	Fibre Optic
Zone 1	\$ 248,500	\$637,500
Zone 2	\$ 215,000	\$341,500
Zone 3	\$ 215,000	\$346,500
Total	\$678,500	\$1,325,500

Table 2. Total CCTV Implementation Cost Estimates by Zone.

Note: For each zone a \$60K budget is included in the costings to allow for fees associated with project management, camera licensing, traffic management during construction and on-site consultant costs to install each zone independently. There may be an economy of scale of project management and other associated costs if two or more zones are delivered concurrently.

The significant cost difference of \$647K between the implementation of a CCTV system using a wireless network compared to a fibre optic cabling option is due to the budget estimates for civil

works to install a new fibre optic service in the ground. There is a high level of complexity and risk associated with laying new cable in the Lavington area due to the existence of the Lavington Telephone Exchange building at the five-ways intersection and the associated underground cabling for which limited mapping information is available.

Estimated Project Delivery

The estimated deployment time to deliver the CCTV system would be approximately 10 weeks for the completion of Zone 1, with an anticipated additional 2 weeks for each subsequent zone. This is a total of approximately 14 weeks for the entire project to completion using a wireless network connection.

This schedule will allow sufficient time for major equipment items such as the CCTV poles and communication links to be procured and delivered to Lavington.

An estimated additional three weeks per zone should be allocated to the time estimates for the fibre optic installation option because of the significant amount of civil works required for cabling. However, these estimates are conservative and do not factor in unforeseen circumstances, such as poor weather, discovery of rock/poor soil, cabling issues with existing underground lines or environmental issues.

Albury 2030

The CCTV system in the Lavington CBD precinct will provide a framework to deliver on the following Albury 2030 strategic actions:

- Theme One – A Growing Sustainable Economy:
 - 1.2 Improve visitors and residents' experiences.
 - 1.2.4 Continue to enhance Albury and Lavington CBDs.
- Theme Three – A Caring Community:
 - 3.2 Albury's key community safety indicators continuously improve.
 - 3.2.1 Develop and implement strategies to improve community safety and amenity.
 - 3.2.2 Advocate to all levels of Government for appropriate resources and strategies, which support a safer community.

Lavington CBD Masterplan:

- Strategy 3: Strengthen the Core.
- Initiative 2: Improve pedestrian circulation, safety and amenity within the CBD.

Risk

- **Business Risk** – Investment into crime prevention measures in the Lavington CBD will build upon our focus to redevelop the area and have a positive impact on growth and investment and improve amenity.

- **Corporate Risk** – If Council does not progress the implementation of crime prevention measures in the Lavington CBD, it could be viewed that Council is not delivering on the Albury 2030 plan and identified actions.
- **WHS and Public Risk** – Nil.
- **Environmental Risk** – Nil.
- **Delivery Program Risk** – There is currently no budget allocation for the provision of CCTV in the Lavington CBD in the Four Year Delivery Program. The availability of CCTV infrastructure grant funding is presently tentative, as the NSW Government strategic direction is toward strengthening crime prevention efforts at a micro-level, such as supporting community organisations and small business operators locally. While these concept plans provide a basis for future grant funding applications, it is impossible to predict when grants may be released by either the State or Federal Government. It is also important to note these concept plans and cost estimates may become redundant over time so may require future review.

Community Engagement

Senior Members of the MRPD participated in the development of the scope of works for the project in order to establish Police priorities and expectations of a public space CCTV system. In addition, the MRPD Crime Manager provided feedback on the consultant's report with strong interest and support for the proposed plan.

As part of the *Lavington Crime Safety Review*, the Lavington community was surveyed in 2019 to assess their perception of crime and safety in the Lavington CBD. The surveys revealed 54% of business operators and 60% of community members considered that a CCTV system would be an effective crime prevention measure. This survey, together with data from recorded crime rates and the level of crime clustering in the area, formed the basis for development of the plan.

Further external engagement resulted in the Crime Prevention Committee supporting the ongoing development of a CCTV system in the Lavington area. In addition, feedback was received during the public exhibition period for the 2020/21 Budget relating to community safety and the consideration of additional public CCTV surveillance.

Extensive internal consultation occurred from members of the Communities, Assets, Procurement and Information Technology teams, including the CCTV Working Party and the Innovation Coordinator, to inform the development of the CCTV Lavington CBD project and to review the consultant's report.

Options

1. Continue to monitor and, when available, apply for funding to install a CCTV system in the Lavington CBD utilising wireless network connectivity.

Recommended.

Option One is the most cost-efficient and easily adapted connection type for the Lavington precinct, which is recommended by Matryx Consulting and AlburyCity's Information Technology Team.

2. Continue to monitor and, when available, apply for funding to install a CCTV system in the Lavington CBD utilising fibre optic cabling connectivity.

Not recommended.

Option Two is not the preferred connection type of Matryx Consulting nor AlburyCity's Information Technology Team due to the significant cost differences and the inflexibility of the connection type.

3. Not pursue grant funding opportunities for the installation of a CCTV system in the Lavington CBD should they arise.

Not recommended.

Option Three is not recommended based on the overwhelming level of support from the NSW Police and community expectations to improve safety in the Lavington CBD.

4. Consider the inclusion of all or part funding for the installation of a CCTV system in the Lavington CBD in developing the 2021 – 2025 Four Year Delivery Program.

Recommended.

Conclusion

Following the success of the CCTV system in the Albury CBD supporting the Murray River Police District operations to detect and reduce criminal activity and safety concerns of the community, Matryx Consulting was engaged to prepare design and cost estimates for the deployment of a CCTV system in the Lavington CBD.

In consultation with the Police and internal teams across Council, a site was identified and prioritised according to three zones. The zones can be independently delivered in a staged approach over time depending on funding. The Mirambeena Community Centre was identified as the preferred location for establishing a centralised data hub to enable a connection to Council's Administration Building in Kiewa Street. This allows the utilisation of infrastructure already in place, combining with the Albury CBD system. In connecting the system to the Mirambeena Community Centre, two options were identified; fibre optic cabling or a wireless network.

The preferred option is for the installation of a wireless network due to the significant cost savings and improved adaptability for expansion. The development of the plan has enabled Council to be well prepared and 'shovel ready' for making an application for grant funding opportunities that may arise.

Council can also consider opportunities to incorporate capital funding for completion of the project when preparing future budgets.

Recommendation

That Council:

- a. Receives and notes the findings of the consultant's report;

- b. Continues to monitor and, when available, applies for funding to install a CCTV system in the Lavington CBD utilising wireless network connectivity; and
- c. Considers the inclusion of all or part funding for the installation of a CCTV system in the Lavington CBD in developing the 2021 – 2025 Four Year Delivery Program.

Attachments

- 1. Lavington CCTV Concept Plans and Cost Estimates – Matryx Consulting Report (DOC20/141968).
- 2. Map of Lavington CBD and CCTV Proposed Camera Zones (DOC18/170577).