Business Case for Service Level Change

Request/Project Name: Community Housing Security Camera Revitalization

Department: Community Development   **Division:** Housing Operations

Council Resolution (if applicable):   **FA2019-67**

I. Executive Summary

Overview of Proposal

Council approved a motion FA2019-67 directing staff to prepare a business case for increased security hours and capital funding to upgrade security cameras. Housing operates a comprehensive security camera system at all GSHC apartment buildings and townhouse complexes. The system uses a network of 51 digital recorders and 436 cameras. The system is helpful in acting as a deterrent to vandalism and other criminal behaviour; and is frequently used by police services as an investigative tool. As well, staff use recorded footage in landlord and tenant Board hearings. The camera systems are consistently rated as a positive feature by residents, who appreciate the safety and security afforded by the cameras. The cameras and recorders are an aging analog based system, and use technology that is near end of life. New systems are entirely digital and use IP based cameras. This project would exercise a phased approach to upgrading the camera systems, and to change the monitoring software to one which is also used by the City and Police Services to ensure compatibility and simpler IT support. In addition, Housing employees security services at 3 of our largest complexes and Security personnel are able to monitor issues in hallways and common areas when they are on site. The current security service level has the 3 sites sharing 80 service hours on evenings and weekends. During 2019, for safety reasons, security was increased to have 2 guards on duty on evenings and weekends, keeping the service level at 80 hours. Due to the rising issues related to the opioid crisis and criminal activity on our properties, tenants have been requesting an increase in security patrols at all 3 sites. With a change in camera systems to City's I-Vision software, it would be possible to have all the camera's monitored from a central location, similar to the system in place for CGS .

II. Background

Current Service Level

The current security camera system uses a network of 51 digital recorders and 436 cameras and was installed in various stages through the years dating back to 2003. The cameras are a mix of analog and digital with some currently operating in black and white. They operate in analog format over Co-Axial cables to an analog DIVAR recording system. There are two software systems required to review and download video footage depending on which vintage of system is in place at a specific building. The City's camera systems are more modern and digital, operating over fibre (where possible) and feed either to a server at the property or directly to servers at Tom Davies Square. The software supplied with the cameras is accessible from the desktops/laptops of Housing staff. There is a significant (weekly) failure rate of video review and download capability whether it is for tenant related concerns or police related concerns. Due to this, the security benefit from having cameras is not being realized and incidents with infrastructure damage associated with negligence, vandalism or other mechanism can't always be utilized to support prosecution due to the technical issues and quality of the images. The current service level for Security patrols is 2 guards on duty for evening and weekend coverage at 3 large sites. The 3 sites currently share a combined 80 hours of security coverage on evenings and weekends.

Drivers for Proposed Course of Action

There have been increased calls for security and review of video surveillance footage by Police and residents, due to increases in crime and crime related activities on our properties. In 2019, Security patrols were increased to 2 guards per shift on evenings and weekends for health and safety reasons. A review of our current camera system indicates that our cameras are inferior to modern High Definition units, the digital recorders (divars) are also aging and small hard drive storage space results in short retention times for video. Often, staff or police will require video only to find that it has been overwritten by more recent footage. Technical issues with our aging camera systems have resulted in weekly error messages while using the existing download software causing gaps in service. CGS staff are unable to provide video recordings to police as they investigate crimes due to the frequent service outages and technical issues. The City uses a platform called I-Vision, which can be accessed through the City's network, for properties with a fast (fibre) connection such as Agilis, it is possible for video to be streamed directly from the various properties to City servers, where it can be accessed remotely. Changing to the same platform would greatly simplify the IT task of supporting our camera system. As well, it would provide a seamless way of sharing video when necessary with Police Services, who use the same platform. Finally, there may be advantages is utilizing existing City live monitoring of cameras and expanding that service to our properties in order to react to issues in buildings as they arise. Review of the repairs and maintenance expenditures on camera systems for the last five years (2014-2018) indicates 135 calls for service which is an average of 27 calls per year or 1 call every 2 weeks. Upgrading the system will reduce these calls for service and associated costs. Increasing the safety and security for residents in social housing through the recommended upgrade to I-Vision and increased security patrols will act as a deterrent for criminal activity and contribute to a safe, inclusive housing environment.

III. Recommendation

Categorize your specific request (mark an 'X' for all that apply):

x	Change to base operating budget		Change to base FTE allocation
	Change to fees (unit price)		Change to revenues (volume change)
	Investment in project (Operating)	x	Investment in project (Capital)

Recommendation

The capital cost to replace all cameras, recording divars and connect the properties using Agilis fibre network is estimated at $830,000. This project is recommended to be phased in over 3 years. The need to replace the aging and cobbled security camera hardware/software was identified and submitted as part of the capital prioritization process. The result of the risk based process was to delay the request to 2021. To prevent this implementation delay, staff are proposing to use existing 2019 capital funding by cancelling an approved asphalt parking lot project at 166 Louis Street with uncommitted value of $300,000. This project has incurred some costs to date including design but was not tendered in 2019. Repurposing the remaining approved 2019 capital funding will provide adequate year 1 funding to begin the camera conversion. These funds are estimated to be sufficient to replace the camera systems at our priority high rise properties. The Louis Street parking lot can be resubmitted as a capital request for 2021. Increasing security service hours from 80 to 120 hours per week shared between the priority sites at a cost of approximately $100,000. This will allow staff to review our security needs with the new cameras system and possibility of monitoring all cameras from one site similar to TDS security and preparing business case for 2021.

How does this align with Council's Strategic Plan?

	Asset Management and Service Excellence		Business Attraction, Development and Retention
	Climate Change		Economic Capacity and Investment Readiness
X	Housing		Creating a Healthier Community

Increasing the safety and security for residents in social housing through increased security measures such as increased patrols and upgraded camera systems contributes to Council's strategic plan and reflects Council's desire for all citizens, especially vulnerable populations, to have access to safe, affordable, attainable and suitable housing.

IV. Impact Analysis

Qualitative Implications

This change will allow for the conversion of cameras at our site with the largest demand for video surveillance from residents and police as well as begin the integration of GSHC camera software and systems with CGS and attempt to create efficiencies. Being connected to City system would allow for the possibility to have the CGS security staff assist 24/7 in the event of an emergency. Staff and residents have been frustrated with the current system technical failures and the lack of quality video to be able to provide evidence for police investigations and landlord and tenant matters. Increased security hours will also increase tenant satisfaction, as they will feel as though their requests have been heard.

Quantifiable Implications

An increase in security budget of $100,000 would enable an increase the service hours from 80 to 120 hours per week for evenings and weekends. Staff would have the flexibility to schedule hours on the 3 sites as required to deal with issues. Upgrading the existing analog camera systems with digital cameras and Agilis fibre connections is estimated to cost $830,000. This capital project would be phased in over 3 years, with 2020 (year one) funding of $300,000 provided by cancelling a 2019 approved capital project. Year 2 and 3 would be funded from the tax levy through contributions to capital. The capital project includes new cameras, digital recorders and the installation of Agilis fibre network cable and I-Vision software to enable GSHC cameras to be compatible with CGS camera systems and network. The I-Vision system will provide the capability for review of all camera's from one location similar to the system in place with TDS security. The $300,000 year one funding will allow GSHC to connect the 3 priority high rise areas. In addition, fibre connections will improve the speed and reliability of our video surveillance camera systems and enhance the ability to respond to requests for assistance from police and residents.

Operating Revenue - Incremental

Detail

Description	Duration	Revenue Source		2020 $	2021 $	2022 $	2023 $	2024 $
	On-Going			$ -	$ -	$ -	$ -	$ -
	One-Time			$ -	$ -	$ -	$ -	$ -
Total				$ -	$ -	$ -	$ -	$ -

Operating Expenditures - Incremental

Detail

Description	Duration	Funding Source		2020 $	2021 $	2022 $	2023 $	2024 $
Security Costs	On-going			$ 100,000				
Transfer from 2019 Capital	One-Time			$ (300,000)	$ 300,000			
I-Vision Cameras	One-Time			$ 300,000	$ -	$ (70,000)	$ (230,000)	
	On-Going			$ 100,000	$ -	$ -	$ -	$ -
	One-Time			$ -	$ 300,000	$ (70,000)	$ (230,000)	$ -
Total				$ 100,000	$ 300,000	$ (70,000)	$ (230,000)	$ -

	Impact to Capital	Staff are proposing to cancel the 2019 Capital project to replace the asphalt parking lot at 166 Louis Street with a unspent value of $300,000 and repurpose the capital funds towards the I-Vision Camera Replacement project in 2020. This will provide the needed year 1 funding and allow us to implement the new camera system at 3 priority sites. With all the asphalt work that the City has been tendering deferring the parking lot may allow for better pricing in future years when not competing with other City asphalt projects.

FTE Table

Position	Bargaining Unit	Duration	Permanent / Part Time		2020	2021	2022	2023	2024
			Permanent		-	-	-	-	-
			PT Hours		-	-	-	-	-

Net Impact		2020 $	2021 $	2022 $	2023 $	2024 $
On-Going		$ 100,000	$ -	$ -	$ -	$ -
One-Time		$ -	$ 300,000	$ (70,000)	$ (230,000)	$ -
Total		$ 100,000	$ 300,000	$ (70,000)	$ (230,000)	$ -

Implementation

The implementation is intended to be phased in over 3 years depending on capital funding availability. The project will begin in 2020 and complete in 2022. The assumptions are based on pricing received by I-Vision and Agilis and that the costs will remain consistent over the 3 year period as technology improves and the specified camera systems/servers continue trend of cost decrease offsetting expected labour cost increases for installation. There is an assumption that the coaxial cables in the high rises are in good condition and will not require replacement. The synergy with connecting cameras through the same I-Vision system as CGS will benefit both the Housing Operations staff, and the CGS IT team as the format will now be identical instead of the current state of 3 different camera systems. There should be a noticeable improvement for Housing staff when reviewing video footage based on reliability and general download speeds.

Advantages/Disadvantages

Advantages	Disadvantages
• Synergy with IT and City camera systems, enhance IT support with 1 integrated system	• Risk associated with capital cost increases due to unforeseen conditions
• Increased quality of camera video from analog to digital, which allows for enhanced enforcement efforts	• Cancelling asphalt work at 166 Louis Street and reprioritizing funding may result in difficulty getting funds for parking lot approved with competing priorities in future years
• Reduced delays for video review and gaps in service created by technical issues with existing internet and cameras	• Risk based review of 166 Louis parking lot indicates that some mitigation work to patch potholes may need to be undertaken
• Allows for increased security hours, review of video camera policies, and possibility of CGS security assistance with review of video for police	

V. Alternatives

Alternatives Considered

Solution Options	Advantages/Disadvantages	Financial Impact
Increasing property tax levy to fund the capital cost of approx $830,000 which can be phased in over 3 years. The high rise buildings at 3 priority sites would be completed in year 1.	Allows for projects to be completed without cancelling parking lot, but puts pressure on competing priorities of lower taxes and other infrastructure work. Work can be phased in as completion of all building cameras and fibre installation at all sites cannot be accomplished in 1 year.	Funding year 1 without reallocating capital priority for our parking lot would increase the tax levy $300,000.
Increase security patrols from sharing 80 hours per week to 168 hours per week (3 sites 8 hours per day 7 days a week). This would double current service level at an estimated cost of $230,000.	Advantage is that the increased security would be noticeable at all 3 sites. Disadvantage is with new cameras, that can be monitored from single location and appropriate personnel dispatched may not require this level of service level and once residents get used to someone on site, its more difficult to change again.	This option would require an increase to the tax levy of $230,000 per year.
Increase security patrols from sharing 80 hours per week to sharing 120 hours per week on evenings and weekends, and funding this $100,000 one time from GSHC operating reserve.	Advantage is that it would give staff an opportunity to review the security needs and the ability to monitor cameras using I-vision from one location like at TDS and determine ongoing needs. Disadvantage is that once tenants get used to this level of service its difficult to reduce and puts pressure on 2021 tax levy increase to fund.	This option would have no impact on tax levy for 2020 but if ongoing would require funding in 2021.