

## STAFF REPORT

**SUBJECT:** Approve Contract with Konica Minolta for Costs Related to Building Security Camera Project

**RECOMMENDED ACTION:** Authorize Executive Director to Contract with Konica Minolta for Projects Related to Building Security Cameras

**DISCUSSION:**

SJCOG recommends that the Board approve a contract with Konica Minolta to replace SJCOG's aging security cameras and associated data storage. The cost proposal is estimated at \$28,130.40 including labor, hardware, rewiring and removal of the old system.

This upgrade is necessary because the current video surveillance system at SJCOG is more than a decade old and is only capable of delivering extremely poor, standard definition video leaving areas of the building exposed to security vulnerabilities. Moving to high definition, state of the art cameras will improve security coverage around the entire building but particularly in the parking lot area. In addition to higher definition, the cameras record ambient sound.

**BACKGROUND**

When the SJCOG building was constructed fifteen years ago it was outfitted with a video surveillance system reflecting technology of the time. The same video equipment remains and is now out of date and no longer meets the standards for security monitoring. The standard definition video lacks the clarity necessary for adequate security monitoring. Not only is this system a key component to provide protection and security to SJCOG staff and property, SJCOG has been approached several times by the Stockton Police Department and residents and businesses in the area for video collection requests to assist them in apprehending suspects involved in vehicle theft, damage etc. While SJCOG has, at times, been able to provide clips that are relevant, due to poor quality of the captured video, it hasn't been of much help.

In order to receive competitive bids, SJCOG staff requested proposals from the current provider, Protection One, and eight other firms, including six local firms, that install and maintain video surveillance systems.

The scope and services identified in the request for proposals were to replace the cameras and storage system with state-of-the art high definition/resolution cameras that would provide coverage around the entire building and the parking lot. This replacement would include upgrading the wiring connecting the existing cameras to a recording device to higher bandwidth

cable. In addition, firms were asked to propose an upgrade to the current recording/storage device.

Six responses were received, three of which were local. The local firms are generally in the alarm and security business. In addition to installing equipment, they also provide monitoring services. This project is solely related to the cameras and storage device without ongoing monitoring. These firms responded with typical solutions that consisted of OEM cameras and Digital Video Recorder (DVR) solutions. An Original Equipment Manufacturer (OEM) is a company that produces parts and equipment that may be marketed by another manufacturer.

Following the initial request for proposals, SJCOG staff learned of the 2019 National Defense Authorization Act (NDAA) that contains a provision barring U.S. government agencies from purchasing Dahua and Hikvision products, including their OEMs. According to the NDAA, these cameras pose a potential security risk because they are manufactured in China and often contain firmware that sends data to undisclosed locations.

SJCOG staff requested all proposers disclose the manufacturer of their cameras and adjust their proposals to not include cameras included in the NDAA ban.

## **SUMMARY OF PROPOSALS**

Charlie's Day & Nite provided a solution that would replace all existing equipment with upgraded versions of the cameras and DVRs that support more megapixels. Each camera location would be replaced with a newer version. These cameras were unbranded OEM's and are made in China conflicting with the NDAA ban. Charlie's Day & Nite was contacted and given an opportunity to resubmit their proposal with alternative equipment but we received no response. Charlie's Day & Nite's proposal came in at \$22,161.80.

Alamo Alarm Company proposed a similar solution with higher quality cameras, providing 4K resolutions. Twenty cameras would be installed throughout with a DVR used to record all footage and a redundant backup in the event the DVR failed. Alamo Alarm's total cost was \$29,340.00.

Both Cero Tech (\$18,874.80) and Protection One (\$16,399.00) provided solutions with either unbranded materials or directly associated brands with banned equipment (HikVision). This particular brand is partly owned (42 percent) by the Chinese government and is the world's biggest maker of surveillance equipment. Included in this ban would be equipment from Hytera, Huawei and Dahua. When given the opportunity to resubmit their proposals with alternative equipment Cero Tech responded with Korean made cameras/equipment while Protection One failed to resubmit.

Cero Tech's proposal uses outdated analog technology, which SJCOG currently employs, and would not replace all the cabling infrastructure with the higher bandwidth variety, making the upgrade to 4K resolutions in the future not possible. This older cable also requires the use of adaptors to upconvert each cable to meet the high bandwidth needs creating another point of

failure. Furthermore, between the two individual DVR's, there are only 15 days of storage at the highest bandwidth setting for this system.

Delta Wireless, while using cameras manufactured in South America, was the most expensive proposal at \$31,244.41. This solution would consolidate down to 17 cameras using one camera to cover several existing zones. However, these cameras were only listed at 4 megapixels which is considerably lower than most of the other vendors who sent proposals.

Konica Minolta proposed a solution for \$28,130.40 using Mobotix Cameras which are smart devices known as network appliances that not only record at a much higher definition but also provide environmental sensors. These cameras are manufactured in Germany. SJCOG would go from a 21 camera system to a 12 camera system due to the high resolution and wider coverage the lenses in these cameras provide. Konica Minolta is the only vendor that proposed lowering the height of several cameras to provide better viewing angles. The system would also include a 5 year warranty to cover any defects or issues that may arise.

These cameras record onto the onboard memory card as well as a NAS (Network Attached Storage) based solution in the server room to provide redundancy in the event of camera or DVR failure.

These cameras have capabilities beyond just capturing high definition video. Aside from capturing video using their proprietary video encoding technology which allows for all frames to be captured using high definition video, they also provide the ability to utilize the onboard environmental sensors. These sensors can monitor sound, light, vibration and temperature changes. Alerts can be configured so that whenever any of these changes are detected, they are sent via notification to the administrator.

Furthermore, audio recording is available on each camera to allow collection of ambient sound within sight of the camera. These cameras also have multiple inputs and outputs that allow integration with alarm and lighting systems. Another important feature available on these cameras is the ability to record video directly onto a memory card onboard each individual camera, which is important if the NAS/DVR recording system fails. With typical systems, all video is sent to the DVR leaving a single point of failure.

Konica Minolta's proposal includes the installation of new category 6 cabling which would replace the low bandwidth cable from the server room into each installation of a camera to allow for the high definition capture as well as monitoring. This also "future-proofs" each camera so that the highest available bandwidth will be available to every camera if 4K video becomes necessary down the line. These cameras would be installed by BICSI certified installers which means that the job is guaranteed with a 20 year labor warranty on all wiring that is completed. Konica Minolta will be contracted to complete all labor, provide necessary hardware and programming as well as removal of the existing legacy camera system.



	# of Cameras	Megapixels	Cost	Monthly Service Cost	Manufactured	NVR/NAS	On-Board Recording	Camera Type	Warranty	CAT6e Rewire	Audio	Analytics	BICSI Certified
Mobotix (KM)	12	6MP	\$ 28,130.40	-	Germany	30 Day NAS	YES	Custom with SD Card	5 years	YES	YES	YES	YES
Charles Day n Nite	22	6MP	\$ 22,161.80	-	China	NVR	NO	OEM/Unbranded		YES	NO	NO	NO
Alamo Alarm Co.	20	8MP/4K	\$ 29,340.00	-	Beijing (Alibaba)	NVR/RAID5	NO	Vitek		YES	NO	NO	NO
Delta Wireless	17	4MP	\$ 31,244.41	-	South America	NVR	NO	Megapix		YES	NO	NO	NO
Cero Tech	22	4MP	\$ 18,874.80	-	Korea	NVR	NO	OEM/Unbranded	1 year	NO	NO	NO	NO
Protection 1	21	2/4MP	\$ 16,399.00	\$ 75.00	China	18TB / 32 Ch. NVR	NO	HikVision		NO	NO	NO	NO

NAS = Scalable without limitation to # of cameras

NVR = Limited to # of channels/licenses of the hardware unit

BICSI = A standard that guarantee's a 20 year labor warranty for all wiring

## FISCAL IMPACT

Konica Minolta has proposed a one-time cost of \$28,130.40 which includes labor, hardware and removal of the old camera system. Funds are available in the SJCOG Annual Financial Plan.

## RECOMMENDATION

Staff recommends awarding the contract to Konica Minolta to cover costs required to install and configure the Mobotix based camera system with a NAS storage system for SJCOG.

*Prepared by Steve Dial, Deputy Executive Director/CFO*