DATE: April 25, 2017

TO: Mayor and City Council

FROM: Director of Information Technology/CIO

SUBJECT: Authorization to Negotiate and Execute an Agreement with V5 Systems for the Purchase of Security Cameras

RECOMMENDATION

That Council adopts the attached resolution authorizing the City Manager to execute an agreement with V5 Systems for purchase of Security Cameras.

SUMMARY

After a successful and extensive pilot project with the Hayward Police Department, staff recommends the purchase of 16 public safety camera systems from V5 systems. The solution meets the needs of the Department today with the features to adapt and evolve in the future.

BACKGROUND

Public safety surveillance camera deployments have gained popularity as the price and size of cameras has decreased. A typical deployment of a surveillance camera requires a dedicated hard wired power source as well as a physical network connection. Depending on the location of the surveillance camera deployment, expensive trenching must be done to house the physical power and network connections, making a competitively priced surveillance camera into a very costly project that most cities cannot afford. V5 Systems provides a surveillance camera product that solves the problem of expensive trenching by using solar panels for power and wireless cards for network connectivity.

The Hayward Police Department began research into the requirements to outfit cameras in the area of Downtown Hayward to explore and evaluate a new solution to combat crime in this targeted area. In the City's exploratory research, V5 Systems was discovered to provide a wireless, solar powered solution that was portable, rather than a traditional fixed camera solution that cannot be moved easily once installed. As part of this research effort, the Hayward Police Department authorized a pilot project to investigate the feasibility of this surveillance camera product which could obtain power via solar panels and network connectivity via wireless cards. This project was of benefit to V5 Systems because the feedback received and resulting features built into the product would be used to sell the product to multiple law enforcement agencies across the United States.

DISCUSSION

Beginning in late July 2015, the Hayward Police Department participated in a 30-day test of surveillance cameras provided by V5 Systems. For the test, ten cameras were strategically deployed at and around City Hall in collaboration with downtown officers. The goals of the project were to evaluate if deploying cameras in this area would reduce crime in this targeted hotspot and if downtown officers could instantly gain visibility of crimes reported in this area using the smartphone application.

Feedback from the test as well as a project overview went before the internal Public Safety Technology Committee (PSTC) on August 25, 2015. Examples of the camera solution, camera views, and specific camera locations were shared. The reviews from the downtown officers were positive. One main takeaway provided by the downtown officers was that individuals who used to populate the benches in the area and engage in various criminal activities no longer populated the areas covered by the view of the cameras. The second main takeaway was that the downtown officers could successfully open the V5 application on their smartphones and begin searching for suspects or activity that was occurring in the area covered by the cameras. This provided the opportunity to identify subjects and activity in real time from multiple vantage points; an opportunity that they did not have without the surveillance cameras deployed. Based on this feedback and demonstration of the product, the membership of PSTC highly recommended V5 systems.

With this feedback in mind, data was gathered from the Crime Analysis Unit to quantify the observations of the downtown officers regarding calls for service and reported crimes in the City Hall area covered by the cameras during the test period. The generated crime data report showed a 61% decrease in calls for service (64 reduced to 25) and a 60% decrease for reported crime (10 reduced to 4) compared from July through September 2014 and July through September 2015. This data lines up with the observations of the downtown officers. For the purposes of this analysis, it should be noted that the cameras were deployed prior to the official beta test period and currently remain active.

The City has deployed these ten cameras for public safety use in three areas: City Hall, Downtown Hayward, and the Tennyson corridor. Attachment III outlines the current locations of the cameras noted by the green or yellow dots on the maps. This public safety tool utilizes innovative technology that will generate interest from the public from a technological and use perspective. Anticipating this interest, the City will be holding a public forum at a future date to answer questions and gain feedback on the technology solution. Feedback from the public forum will serve as a platform for City staff to review City policy on the use of this and other video capture solutions. This policy will then be brought forward to the Council Technology Application Committee (CTAC) and the City Council for review.

This request seeks payment for the ten cameras currently in use and the purchase of an additional six camera systems. The City will not take delivery of or deploy these six additional camera systems until after the public forum is held and the City Council has an opportunity to weigh in on the policy recommendations. This will ensure that the community has had the

opportunity to voice their feedback on this solution. This demonstrates the City's commitment to a transparent and open discussion on this important and timely topic.

Overall Strengths of V5 Systems:

Flexibility of Deployment
V5's solution offers the Department tremendous flexibility in deployment since no wires are needed for power and network connectivity. What this translates to is a solution that could be moved to various crime hotpots with very little downtime. This also opens the opportunity to deploy cameras in areas of Hayward that lack the proper power and network infrastructure to support a surveillance camera solution such as the three radio tower repeater sites.

Desktop and Smart Phone Video Access
Viewing of the camera feeds from the PC Desktop or smart phone application is a quick and efficient process. It takes a matter of seconds to bring up the live feeds meaning that there is little delay in obtaining a live view of the cameras. This allows officers the opportunity to view the feeds and assist with identification should an incident occur in the area covered by the surveillance cameras.

Video Quality and Consistency
The video quality of V5's solution, both day and night, provides a clear, unimpaired view of all of the camera feeds. Recorded video can be accessed via the mobile application as well as the desktop application which allows the officer to search video while on the street or in the office. Finally, the V5 units are regularly serviced and adjusted as needed by V5 to ensure the product is performing at its highest visual level.

FISCAL IMPACT

V5 has allowed the ten cameras from the 2015 pilot program to remain in place and has not yet been compensated for these cameras. The five-year cost for each camera is $10,000. This includes the equipment, installation, maintenance, a five-year warranty, and camera upgrades. Factoring in local sales tax of 10%, this brings the total five-year estimate to $11,000 per camera. Video data storage costs over the life of the contract must also be accounted for to comply with the City's data retention schedule. Video data for this solution is stored at D1 resolution (720x480) and the contract agreement provides a rolling one year video retention schedule for this video data. If the data retention schedule increases in the future or if the capability to store higher resolution video becomes a need, then the City would need to revisit the data storage model with the vendor and budget for the costs for making these changes. The City is requesting payment for ten existing cameras and the additional purchase of six camera systems plus video data storage, setup, and maintenance for a total five-year project cost of $215,371.

CIP funding has been approved for the purchase of the camera solution and storage. The monthly wireless card charges will be added to the public safety wireless bill. The following CIP funds have been approved.

Capital Fund 731 has $200K budgeted in project 07262
Capital Fund 405 has $60K budgeted in project 07415 (Tower Surveillance System)

NEXT STEPS

The combination of features and technology embedded in the solution offered by V5 Systems remains the most compelling and innovative product in the current safety camera market place. Traditional fixed camera solutions cannot adapt to the changing needs of law enforcement agencies and do not offer flexibility of deployment which is needed most. Adding V5 public safety surveillance cameras as a public safety tool allows officers to gain instant access to video feeds to fight crime as well as provide the flexibility to deploy cameras in alternate areas should crime hotspots move. This product meets the sole source justification due to its combination of proprietary video analytics, data encryption, solar-powered single form-factor, and unparalleled portability and video feed access which would allow the Department to place secured cameras in areas that lack network and power connections that never could have been considered before. Due to the key features, quality, and excellent customer service of the camera solution, staff recommends the purchase of sixteen (ten existing loaned systems and six additional) V5 surveillance camera systems. Ten cameras will be deployed in Hayward at hotspots the Department has identified and six will be installed to cover the critical infrastructure of three radio tower sites in the City of Hayward.

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