



Office of the City Manager

CONSENT CALENDAR

November 12, 2013

To: Honorable Mayor and Members of the City Council

From:  Christine Daniel, City Manager

Submitted by: Michael K. Meehan, Chief, Police Department

Subject: Revenue Grant: Urban Areas Security Initiative Grant Program to Fund Acquisition of a 3D Laser Scanner Measurement Device for 3D Forensic Documentation

RECOMMENDATION

Adopt a Resolution authorizing the City Manager to apply for and accept a grant, and any amendments, from the Department of Homeland Bay Area Security Urban Areas Security Initiative Grant Program in the amount of \$85,793, to fund the purchase of a Laser Scanner 3D measurement device for use in forensic investigation and operational planning.

FISCAL IMPACTS OF RECOMMENDATION

The total cost of the 3D Laser Scanner measurement device, including warranty and maintenance, and training for a 10-year period, is \$85,793. The department is requesting grant funding for the total amount. If the proposal is approved, the department must purchase the equipment and then be reimbursed by UASI. An appropriation of \$85,793 will be made in that case in Fund 678 (UASI Regional Fund) and included in the Second Amendment to the FY 2014 Annual Appropriations Ordinance.

Substantial savings are anticipated as use of the new technology requires fewer personnel, requires less time on scene to gather data, and can more quickly produce diagramming information and 3D views than current surveying equipment and associated software and staffing costs.

CURRENT SITUATION AND ITS EFFECTS

The Police Department currently uses aging survey equipment and software to capture precise measurement points and produce two-dimensional diagrams for major crime scenes and injury collision locations. This equipment requires a minimum of three officers to spend several hours per scene capturing dozens of measurement points. Officers later convert the data collected into graphical form as a two-dimensional diagram. Preparation of the diagram alone is a time-consuming task, typically taking an officer at least 10 hours to complete. The resulting diagram is used to support the

investigation and subsequent prosecution. Some incidents may involve more than one scene, or an extended diagram, and the amount of staff time required increases accordingly.

A highly specialized 80 (eighty) hour training class is required for each operator to use the current equipment. Because this system was primarily intended for use in traffic collision investigations, Berkeley Police Traffic Officers are trained on using the legacy equipment and software. When needed for other types of investigations, Traffic officers use the same equipment to produce two-dimensional crime scene diagrams.

The FARO 3D Laser Scanner is a highly portable, extremely precise laser measuring device which police crime scene technicians and collision investigators can use to document incident scenes. The device uses a laser to capture millions of data points with each scan. Scans take a few minutes each to perform, rather than hours using surveying equipment. Only one operator is required, rather than three or more. Multiple scans, taken from different vantage points, are processed together to create three-dimensional image files. The device also photographs the scene. The resultant digital files combine extremely accurate measurements with photographs, allowing users to view the scene from different vantage points, and to dynamically move through the three dimensional, photo-realistic scene. The Laser Scanner will allow for more rapid, more accurate, and more useful documentation for crime scene examination and analysis, and accident scene investigation.

A thirty-two hour training class is required for each operator. The device's user interface is relatively simple to understand and easy to use. With the overall ease of use, the Department anticipates training more operators, including members of the Crime Scene Unit. Scene capture will become more convenient, less time-consuming, and is likely to be deployed on a more frequent basis.

BACKGROUND

The Police Department seeks to apply for and receive grant funding from the DHS Bay Area UASI Grant Program to purchase the 3D Laser Scanner. The FARO 3D Laser Scanner is proposed as a tool to support several objectives of the FY 14 UASI Grant Program, including Strengthening Regional Risk Management and Planning, Enhancing Infrastructure Protection Capabilities, and Enhancing Recovery Capabilities. The FARO Laser Scanner creates 3D scene files that can be easily shared in self-contained CDs. The Laser Scanner can rapidly diagram crime scenes, allowing rapid post-incident information sharing for forensic and investigative purposes, and for the rapid return of access and use of public properties.

The UASI Grant Program seeks proposals that benefit regional partners. To that end, the department is seeking grant funding to support regional benefits to northern Alameda County neighboring agencies, including Albany, Emeryville, Bay Area Rapid Transit, and University of California Police Departments. The grant will specify the use of the equipment by all departments engaged for the purpose of risk management

planning and infrastructure protection by recording physical plant structure data at risk locations for use in risk assessment, security strengthening, and disaster recovery.

RATIONALE FOR RECOMMENDATION

If awarded, the City will be able to acquire the desired equipment without additional cost to the City, as well as increase the effectiveness of the police department and benefit neighboring agencies. Acquisition and use of the FARO Laser Scanner will greatly enhance Police Department forensic and investigative capabilities, while decreasing related staffing costs, saving staff time, and allowing for greater ease in documenting crime and collision scenes.

ALTERNATIVE ACTIONS CONSIDERED

There are no other known funding opportunities to acquire this equipment. Funding from neighboring police departments or other City of Berkeley departments is unlikely due to current fiscal realities.

CONTACT PERSON

Andrew Greenwood, Investigations Captain, Police Department, 981-5810

Attachments:

1: Resolution

RESOLUTION NO: ##,### N.S.

REVENUE GRANT: DEPARTMENT OF HOMELAND SECURITY BAY AREA URBAN AREA SECURITY INITIATIVE GRANT PROGRAM TO FUND THE PURCHASE OF A 3D LASER SCANNING MEASUREMENT DEVICE

WHEREAS, the Department of Homeland Security has made grant funding available to police departments to enhance their ability to support regional efforts to strengthen Regional Risk Management and Planning, Enhance Infrastructure Protection Capabilities, and Enhance Recovery Capabilities, to protect the health and safety of community members and police and other emergency responders; and

WHEREAS, the Berkeley Police Department has a need for advanced modern equipment to precisely capture measurement data and produce highly accurate crime scene and collision scene diagrams; and

WHEREAS, the Police Department will seek to work with neighboring jurisdictions to utilize a 3D Laser Scanner Measurement Device to further mutual community safety goals in accordance with the UASI Grant Program priorities; and

WHEREAS, the City of Berkeley has an opportunity to file for a DHS Urban Area Security Initiative Grant Program grant to fund the purchase of a 3D Laser Scanner Measurement Device, and the grant does not require matching funds from the City of Berkeley; and

WHEREAS, the total cost of the 3D Laser Scanner Measurement Device is \$85,793 including annual calibrations, training, software updates, and warranty for ten years, and the grant request is for \$85,793. An appropriation of \$85,793 will be made in Fund 678 (UASI Regional Fund).

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the City Manager is authorized to apply for and accept a grant, with any amendments, from the Department of Homeland Security, in the amount of \$85,793, for the purchase of a 3D Laser Scanner Measurement Device.