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OFFICE OF THE CITY CLERK
OAKLAND

2016 JAN 13 PM 5:15

AGENDA REPORT

TO: Sabrina B. Landreth
City Administrator

FROM: Sean Whent
Chief of Police

SUBJECT: Forensic 3-D Laser Scanner Purchase

DATE: December 22, 2015

**City Administrator
Approval**

Date 1/14/16

RECOMMENDATION

Staff Recommends That The City Council Adopt A Resolution: 1) Authorizing The City Administrator, Or Designee, To Purchase Two ScanStation Forensic 3-D Laser Scanner Systems, For Forensic Investigation of Violent Crime, Manufactured By Leica Geosystems From Precision Survey Supply For Three Hundred Seventeen Thousand Five Hundred And Two Dollars (\$317,502); And 2) Waiving The City's Competitive Advertising/Bidding Requirements.

EXECUTIVE SUMMARY

The Oakland Police Department (OPD) requests approval of a resolution authorizing the purchase of two laser scanner systems for forensic investigation of violent crime. One laser scanner system will be assigned to the OPD Police Evidence Unit (PEU) and the other will be assigned to the Crime Laboratory (Crime Lab). Both will be used to assist in the investigation of homicides and felony assaults including non-fatal shootings. These systems will allow OPD to create virtual three-dimensional (3-D) crime scenes more efficiently and effectively. This technology will significantly reduce the time required to process crime scenes using current manual processes, and more usable evidence will be gathered. Funding will come from two existing sources within OPD: the 2014 U.S. Department of Justice Byrne/Justice Assistance Grant (JAG) and funds within the Fiscal Year (FY) 2015-16 Adopted Policy Budget earmarked for firearms tracing efforts.

A waiver of the RFP/RFQ advertising and bidding requirements is requested because the Leica Geosystems ScanStation Forensic 3-D Laser Scanner System is the only three-dimensional laser scanner that provides scientifically accurate evidence admissible in U.S. Federal Court and California State Court. Precision Survey Supply is the sole distributor of Leica Forensic Scanners in the United States.

BACKGROUND AND LEGISLATIVE HISTORY

There many incidents involving gunshots in Oakland each year. The PEU and Crime Lab are tasked with investigating shooting incidents to develop evidence that can assist criminal

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investigations and prosecutions. Traditional methods for investigating shootings involve Police Evidence Technicians (PETs) creating hand-drawn diagrams to recreate what occurred during a shooting - this process takes hours, if not days to complete. This is necessary so that the OPD Criminal Investigations Division (CID) can develop sufficient evidence for a successful criminal prosecution. OPD staff process crime scenes of shooting homicides and officer involved shootings (OISs). Due to the volume of incidents and the time required for each, an average of 600 shooting scenes each year are not fully processed. Some of these incidents are later connected to other crimes.

ANALYSIS AND POLICY ALTERNATIVES

Modern forensic three-dimensional laser scanning technology has led to a much more efficient approach to documenting crime scenes. Laser scanners, such as the ScanStation Forensic 3-D Laser Scanner System Manufactured by Leica Geosystems (the scanner), record scenes in a full 360-degree panorama, with a high level of photographic resolution. The digital recording system uses geographic positioning systems (GPS) to ensure accuracy of 3-D images. The scanner is accurate to within six millimeters, thus making the data captured highly accurate. Three-dimensional images can be reproduced on large screens, providing excellent viewing for juries.

Oakland Municipal Code (OMC) Section 2.04.050.1.5 authorizes the City Council to waive the advertising and competitive bidding requirements of OMC Section 2.04.050, after a finding and determination that it is in the best interests of the City to do so. A waiver of advertising and bidding requirements is requested because the Leica Geosystems ScanStation Forensic 3-D Laser Scanner System is the only three-dimensional laser scanner that provides scientifically accurate evidence admissible in U.S. Federal Court and California State Court. Other manufacturers have not passed the *Daubert*¹ standard, making their products inadmissible in court. Precision Survey Supply is the sole distributor of Leica Forensic Scanners in the United States (see **Attachment A**).

With the acquisition of this scanner, OPD will be better positioned to visually record and gather important firearms-related evidence from all homicides and OISs. OPD will also be better positioned to gather such evidence from shootings where multiple victims are critically injured or multiple complex crime scenes exist. The scanner will be used at incidents where there is a loss of life as a result of an assault with a deadly weapon other than a firearm. The technology rapidly and accurately captures a crime scene and the evidence within, regardless of the type of weapon used. Additional uses of the scanner may be identified as opportunities and capacity are identified within OPD.

FISCAL IMPACT

Precision Survey Supply, the local authorized dealer of Leica Geosystems has provided OPD with an advance invoice (quote) for the purchase of a Leica Geosystem ScanStation P40 for

¹ *Daubert v. Merrell Dow Pharmaceuticals, Inc.* (1993), US Supreme Court

\$158,750.91 (**Attachment B**). This price includes all calibration, firmware, software, maintenance, and technical support for the first two years of purchase.

No additional funds are requested, as funding for the second laser scanner system was already approved (see below). Funding for these purchases will come from the General Purpose Fund (1010), Criminal Investigations Division Org (102130), Acquisition of Right of Way Account (57111), Reduce Gun Violence Project (A490870), Criminal Investigations Program (PS03) and the Federal Grant Fund (2112), Property & Evidence Org (102120), Acquisition of Right of Way Account (57111), 2014 JAG Project (G450340), Agency-wide Administration Program (PS01).

Fiscal Year	Fund Source	Organization	Account	Project	Program	Amount
2015-16	1010	102310	57111	A490870	PS03	\$187,502
2015-16	2112	102120	57111	G450340	PS01	\$130,000

Ongoing maintenance costs after the first two years are estimated to be \$3,000 to \$7,500 annually for scan station calibration, firmware and software updates, general maintenance, and technical support. The range of costs depends on types of use and whether OPD determines that it must update the firmware and software annually or bi-annually. These funds are critical to the ongoing viability and usefulness of the scanner, and will come from the Crime Laboratory and Property and Evidence non-project general purpose funds.

OPD has sufficient funds from its 2014 JAG to cover nearly the entire cost of one scanner. City Council accepted and appropriated 2014 JAG funds on October 1, 2013 through Resolution No. 84641 C.M.S.

The remaining funds needed for the first scanner and the entire cost of the second scanner are available in the FY 2015-16 Adopted Policy Budget as part of the \$1,000,000 earmarked for "Special Investigations to reduce gun violence & illegal gun dealing" (gun tracing). The spending plan for the OPD gun tracing funding was presented to the Public Safety Committee on November 10, 2015 and accepted by City Council on November 17, 2015. Within the spending plan for gun tracing, \$145,155.25 was identified for the purchase of a Leica Geosystems, Inc. ScanStation laser scanner. This earlier quote was for the same model, but with slightly different associated costs and did not include 9.5 percent sales tax in the amount of \$13,772.91. The new quote (**Attachment A**) is for \$158,750.91 for a single laser scanner.

Also included within the spending plan for gun tracing was \$50,000 in FY 2015-16 for Information Technology Department (ITD) to automate firearms information collection. Another \$50,000 was included for this purpose for FY 2016-17. In subsequent discussions with ITD, OPD now understands that the total cost of the project will be less than \$50,000. OPD will use a portion the \$50,000 originally intended for ITD in FY 2015-16 to fund the difference between the expected and actual costs for both gun scanners.

OPD will develop a budget for the ongoing maintenance costs if this purchase is approved by the City Council.

PUBLIC OUTREACH / INTEREST

No outreach was deemed necessary for the proposed purchase beyond the standard City Council agenda noticing procedures.

COORDINATION

This report was reviewed by the Office of the City Attorney, the Budget Office, and the Controller's Bureau.

SUSTAINABLE OPPORTUNITIES

Economic: There are no economic opportunities associated with this purchase.

Environmental: There are no environmental issues associated with this purchase.

Social Equity: All Oaklanders benefit from continued support of OPD criminal investigations.

ACTION REQUESTED OF THE PUBLIC SAFETY COMMITTEE

Staff Recommends That The City Council Adopt A Resolution: 1) Authorizing The City Administrator, Or Designee, To Purchase Two ScanStation Forensic 3-D Laser Scanner Systems Manufactured By Leica Geosystems From Precision Survey Supply For Three Hundred Seventeen Thousand Five Hundred And Two Dollars (\$317,502); And 2) Waiving The City's Competitive Advertising/Bidding Requirements.

For questions regarding this report, please contact Sergeant Rachael Van Sloten at (510) 238-8776.

Respectfully submitted,



Sean Whent
Chief of Police
Oakland Police Department

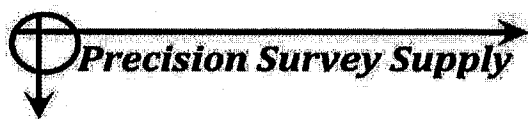
Reviewed by:
Rachael Van Sloten, Sergeant
OPD, Police Evidence Unit

Prepared by:
Bruce Stoffmacher, Legislation Manager
OPD, Office of the Chief, Research and Planning

Attachments (1):

- A: Sole Source Letter
- B: Laser Scanner Invoice

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Public Safety Committee
January 26, 2016



8628 Utica St, Suite 800 – Rancho Cucamonga, CA. 91786
909-931-4040 Main / 909-931-4009 Fax / 888-275-3054 Toll Free
www.precisionsurveysupply.com

November 6, 2015

Oakland Police Dept.
Sgt. Rachel Van Sloten
2651 73rd Ave
Oakland Ca. 94605

Re: Sole Source Letter for Leica Geosystems Forensic ScanStation

To Whom It May Concern:

The ScanStation Forensic 3-D laser scanner system manufactured by Leica Geosystems is the only 3-D laser scanning system made which combines all of the features and support infrastructure required to support the investigation mission of the Oakland Police Department.

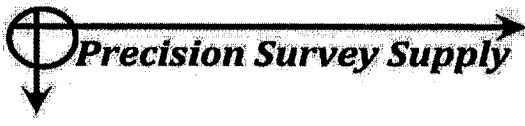
The unique features combined in the system include:

- Safety: No need for laser safety goggles or erection of safety barriers to protect public.
- Scanner: Environmentally enclosed optics with a dust/humidity rating of at least IP54.
- Scanner: 3-D positional accuracy of a single measurement ≤ 6 mm.
- Scanner: Integrated color digital camera with zoom and real-time streaming.
- Scanner: On-board ability to view target scans in 3-D and to do detailed scans of selected areas.
- Scanner: Able to support GPS antenna or survey prism attached to top of scanner.
- Scanner: Hot Swappable battery technology.
- Key accessory: NIST traceable artifact for confirming measurement accuracy.
- Integration: All hardware and software from one source, Leica Geosystems & Precision Survey Supply.
- Training: Crime Scene Specific Training and course materials.
- Training: Accident Reconstruction Specific Training and course materials.
- Support: One-call support for all products-- scanner and software which are manufactured by Leica.
- Support: True 24/7 Precision Survey Supply Technical Support.
- Support: Precision Survey Supply Emergency Response Support.
- Precedent: Trial exhibits created from Leica ScanStation data have a 100% acceptance in U.S. courts.
- Precedent: The Leica ScanStation has satisfied the Daubert standard in a U.S. court.
- Precedent: California Decision where Leica Scan Station Data as scientific evidence.
- Validation: Leica scanners have been validated as accurate for bullet path reconstruction.
- Validation: Leica scanners have been court accepted.

Precision Survey Supply holds the sole source for this opportunity and distribution which combines the unique features within the package listed and built specifically for the Oakland Police Department. Precision Survey Supply is the sole distributor with the Leica Forensic Scanner for the US.

The Leica Geosystems 3D Forensic Laser Scanner is unique from any other manufacture and can only be combined by Precision Survey Supply:

- Leica is the sole manufacture that publishes their accuracy measurements and provides a diagnostic report for court. Other manufactures do NOT publish their accuracy or measurement of uncertainty.
- Leica has earned the rating of IP54, which means the scanner can be used in increment weather and rain. Other manufactures cannot operate in rain or increment weather.



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- Leica is the sole manufacture that has passed the standard of Daubert in federal court. Other manufactures have not passed the standard of Daubert in Court or have decisions regarding their data deemed as Scientific Evidence.
- Leica is the sole manufacture which can complete a detailed scan within the existing scan to document a crime scene in higher definition. Other manufactures cannot complete a scan within a scan, as a detailed scan.
- Leica is the sole manufacture where the training has been certified and accredited by IAI (International Association of Identification). Other manufactures have not had their training accredited or certified.
- Leica is the sole manufacture where the tools and software have been validated and passed the scrutiny of bullet path trajectory for court. Other manufactures do not have a validation of bullet path trajectory.
- Leica is the sole manufacture which incorporates NIST Targets for laser scanning. Other manufactures do not have NIST certified Targets.
- Precision Survey Supply is the sole distributors which provide 24/7 technical support. Other vendors do not offer 24/7 support for free.
- Precision Survey Supply is the sole distributor which provides the Leica 3D Forensic Laser Scanner in the configuration, service, training, and support as specifically built for Oakland Police Department as one total solution. Other manufactures must substitute their training, service, or software and require their technical support from several different vendors.

Please contact me if you have any additional questions.

Sam El-Said
General Manager
sam@precisionsurveysupply.com
Precision Survey Supply
909-931-4040 Office
909-241-7422 Cell

Precision Survey Supply LLC

Precision Survey Supply, LLC
 8628 Utica Avenue, Suite 800
 Rancho Cucamonga, CA 91730

Phone # 909-931-4040 alex@precisionsurveysupply.com
 Fax # 909-931-4009 www.precisionsurveysupply.com

Attachment B

Quote

Date	Quote #
12/10/2015	21978

Name / Address
Oakland PD - CA Mark Bennett 2651 73rd Ave Oakland, CA

Project

Item	Qty	Description	Unit Price	Total
6009377	1	Leica ScanStation P40 Standard Package, consisting of: 1x ScanStation P40 laser scanner (827494) 1x GVP645 transport box (769625) 1x GDF323 Tribrach without optical plummet (777970) 4x GEB242 Lithium-Ion Battery (793975) 1x GKL311 Single charger Prof 3000 (799185) 1x GEV228 data cable (766567) 1x GHM008 Scanner height meter (772829) 1x GHT196 Distance holder for height meter (722045) 1x ScanStation P40/P30 Quick Guide 1x ScanStation P40/P30 System USB Stick 1x Cyclone CD (755609)	117,000.00	117,000.00T
6009451	1	1 year CCP Basic contract (6009442) 1st yr ScanStation P30/P40 CCP Silver consisting of: 1 yr Hardware Maintenance, 1 yr SW Maintenance, 1 yr Customer Support	0.00	0.00T
841807	1	iStar Fusion Customized Pelicase External 12V Battery and Charger Leica Spacer Rod (C10/Pxx) Tribrach Puck 12 month standard hardware warranty	8,500.00	8,500.00T

Thank you for your business.	Subtotal
	Sales Tax (9.5%)
	Total

Precision Survey Supply LLC

Precision Survey Supply, LLC
 8628 Utica Avenue, Suite 800
 Rancho Cucamonga, CA 91730

Phone # 909-931-4040 alex@precisionsurveysupply.com
 Fax # 909-931-4009 www.precisionsurveysupply.com

Attachment B

Quote

Date	Quote #
12/10/2015	21978

Name / Address
Oakland PD - CA Mark Bennett 2651 73rd Ave Oakland, CA

Project

Item	Qty	Description	Unit Price	Total
799187	1	GKL341 Charger Prof 5000 / Charges up to 4 batteries, including power cable.	637.50	637.50T
8242089	1	Wireless Controller System - For remote wireless control of Scan Station C10 to protect investigators from HAZMAT and minimize evidence disturbance at the crime scene. Includes Ruggedized case.	400.00	400.00T
8239239	1	Rolling Base for Scanners and Instruments. Rolling base for scanner. Scanner can be mounted directly on base for low set-ups. Holds up to 30 lbs.	1,196.00	1,196.00T
670238	1	Leica Tripod - heavy duty surveying tripod	420.00	420.00T
PSS32230	1	High Definition Scanning External Data Collector / Intel® Core™ i7 Processor / High Res Display / 16GB RAM / 2GB Video / 1TB Hard Drive 8-cell battery 150W AC adapter Owner's manual	0.00	0.00T
798751	1	Leica Cyclone - REGISTER - Permanent License - CCP not included	6,262.50	6,262.50T
798753	1	Leica Cyclone - PUBLISHER - Permanent License - CCP not included	4,267.00	4,267.00T

Thank you for your business.	Subtotal
	Sales Tax (9.5%)
	Total

Precision Survey Supply LLC

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Quote

Date	Quote #
12/10/2015	21978

Name / Address
Oakland PD - CA Mark Bennett 2651 73rd Ave Oakland, CA

Project

Item	Qty	Description	Unit Price	Total
6007859	1	CCP Basic for Cyclone REGISTER (1 year) - Technical Support: Access to software support hotline - Software maintenance: Includes all software updates	1,125.00	1,125.00T
6007856	1	CCP for Leica Cyclone - PUBLISHER (1 yr)	760.00	760.00T
5003303	3	3 Days On Site Consulting Services for Public Safety	1,470.00	4,410.00T

Thank you for your business.		Subtotal	\$144,978.00
		Sales Tax (9.5%)	\$13,772.91
		Total	\$158,750.91

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OFFICE OF THE CITY CLERK
OAKLAND

OAKLAND CITY COUNCIL

Amador S. Jett
City Attorney

2016 JAN 13 PM 5: 14

RESOLUTION NO. _____ C.M.S.

RESOLUTION: 1) AUTHORIZING THE CITY ADMINISTRATOR, OR DESIGNEE, TO PURCHASE TWO SCANSTATION FORENSIC 3-D LASER SCANNER SYSTEMS MANUFACTURED BY LEICA GEOSYSTEMS FROM PRECISION SURVEY SUPPLY FOR THREE HUNDRED SEVENTEEN THOUSAND FIVE HUNDRED AND TWO DOLLARS (\$317,502); AND 2) WAIVING THE CITY'S COMPETITIVE ADVERTISING/BIDDING REQUIREMENTS

WHEREAS, there are over 1,000 gunshot incidents in Oakland each year and the Oakland Police Department's (OPD) Police Evidence Unit and Crime Laboratory are tasked with investigating shooting incidents to develop evidence that can assist crime investigations and support criminal prosecutions in the court of law; and

WHEREAS, traditional methods for investigating shootings employed by OPD include manually drawing diagrams to recreate each shooting scene, which requires many hours of staff time for each shooting scene; and

WHEREAS, OPD lacks resources to investigate all shooting crimes scenes and currently over 600 shooting scenes each year, on average, are not fully processed with Police Evidence Technicians being unable to respond to all of them and diagrams are only completed for the most serious incidents because of limited resources; and

WHEREAS, staff has determined that the ScanStation Forensic 3-D Laser Scanner System Manufactured by Leica Geosystems, is sold locally only by Precision Survey Supply; and

WHEREAS, the Leica Geosystems 3-D scanning system utilizes a modern process that records 3-D, 360 degree images with a high degree of accuracy and is the only version of this technology that produces images that have been found to be completely admissible in U.S. and California courts of law; and

WHEREAS, OPD and the City are best served by using a technology that most successfully leads to admissible evidence and supports successful criminal prosecutions; and

WHEREAS, the 3-D images produced by the ScanStation Forensic 3-D Laser Scanner System can be reproduced on large screens so that juries can much more easily view the evidence during trials; and

WHEREAS, Oakland Municipal Code section 2.04.020.B requires Council approval of contracts for technology-related professional products or goods in excess of \$50,000; and

WHEREAS, Oakland Municipal Code (OMC) Section 2.04.050.1.5 authorizes the City Council to waive the advertising and competitive bidding requirements of OMC Section 2.04.050.A after a finding and determination that it is in the best interests of the City to do so; and

WHEREAS, staff recommends that it is in the best interests of the City to waive advertising and bidding processes because Leica Geosystems produces the only three-dimensional laser scanner that provides scientifically accurate evidence admissible in California and. Federal courts and Precision Survey Supply is the only local dealer for Leica Geosystems scanners; therefore be it

RESOLVED: That the City Council authorizes the city administrator, or designee, to purchase two ScanStation Forensic 3-D Laser Scanner Systems, Manufactured By Leica Geosystems, from Precision Survey Supply for a price not to exceed three hundred seventeen thousand five hundred and two dollars (\$317,502); and be it

FURTHER RESOLVED: That pursuant to OMC 2.04.050.1.5 and the for the reasons stated above and in the City Administrator's report accompanying this item, the City Council finds that it is in the best interests of the City to waive advertising and bidding requirements for this contract to purchase ScanStation Forensic 3-D Laser Scanner Systems and so waives the requirements; and be it

FURTHER RESOLVED: That the cost for the purchase of laser scanners shall be paid from a combination of the General Purpose Fund (1010), Criminal Investigations Division Org (102130), Acquisition of Right of Way Account (57111), Reduce Gun Violence Project (A490870), Criminal Investigations Program (PS03) and the Federal Grant Fund (2112), Property & Evidence Org (102120), Acquisition of Right of Way Account (57111), 2014 JAG Project (G450340), Agency-wide Administration Program (PS01); and be it

FURTHER RESOLVED: That the City Attorney shall approve the agreement and contract terms as to form and legality; and be it

FURTHER RESOLVED: That the City Administrator or designee shall place a copy of the fully purchase agreement with Precision Survey Supply on file with the Office of the City Clerk.

IN COUNCIL, OAKLAND, CALIFORNIA, _____, 20____

PASSED BY THE FOLLOWING VOTE:

AYES - BROOKS, CAMPBELL WASHINGTON, GALLO, GUILLEN, KALB, KAPLAN, REID, and PRESIDENT GIBSON MCELHANEY

NOES -

ABSENT -

ABSTENTION -

ATTEST: _____
LaTonda Simmons
City Clerk and Clerk of the Council of the
City of Oakland, California