



**COUNTY OF EL DORADO  
Procurement & Contracts**

ATTN: Purchasing Agent  
330 Fair Lane  
Placerville, CA 95667

**INVITATION TO BID & BID #19-550-042**

**DUE: 3:00 PM – January 16, 2019**

Sealed Bids must be clearly marked on the outside of the package with:

**“BID #19-550-042 – DO NOT OPEN”**

**ALL BIDS SUBJECT TO GENERAL TERMS AND CONDITIONS**

**GRIDSMART CAMERA SIGNAL SYSTEM with CAT 5 WIRE**

The El Dorado County Procurement & Contracts Division is requesting bids for a one time purchase of two (2) Gridsmart Camera Signal Systems with CAT 5 Wiring. See Quotation Schedule on pages eleven (11) through eighteen (18) for detailed product specifications.

**Specifications:** Product specifications are provided on the quotation schedule, beginning on page eleven (11). This is a **“brand specific”** bid. Bidders must quote **Gridsmart Camera Signal System** only as listed in the Quotation Schedule. **Alternate brands and models will not be accepted. Failure to bid the Gridsmart Camera Signal System brand will result in your bid being rejected as non-responsive**

**Information:** For additional information, contact Rick Blake, Sr. Buyer, at (530) 621-5873 (email rick.blake@edcgov.us. Bidders shall direct all inquiries to the County Procurement and Contracts Division Purchasing Agent and shall not contact the requesting department directly regarding any matter related to this Invitation to Bid.

**ALL BIDS SHALL BE QUOTED FREIGHT PREPAID FOB DESTINATION**

*Prior to preparing your bid submittal, please note the General Terms and Conditions, Instructions to Bidders, Item #3 which states: Erasures, overwrites and the use of correction fluid or tape are NOT acceptable.*

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
Signature of Authorized Agent

\_\_\_\_\_  
Mailing Address

\_\_\_\_\_  
Print Name & Title of Authorized Agent

\_\_\_\_\_  
City State Zip

\_\_\_\_\_  
Date

\_\_\_\_\_  
Phone

\_\_\_\_\_  
Fax

\_\_\_\_\_  
E-Mail Address

**Bid Preparation / Submittal Checklist**

- [ ] All required bidder information on Page one (1) of the Invitation to Bid is completed and has the original signature of an authorized agent.
- [ ] Note that erasures, overwrites and the use of correction tape or fluid are NOT acceptable. Refer to Item #3 of the General Terms and Conditions for specific instructions.
- [ ] Note any prompt payment discounts available on the Quotation Schedule, Page nineteen (19).
- [ ] Indicate delivery lead times on the Quotation Schedule, Page nineteen (19).
- [ ] A valid California Seller's Permit number is entered on Page six (6).
- [ ] All requirements of Invitation to Bid have been met.
- [ ] Local Vendor Preference Affidavit of Eligibility form submitted with bid; link to form information available on Page seven (7).

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## **General Terms and Conditions**

### *Instructions to Bidders:*

- (1) Bidders are responsible to see that the bid is received in the Procurement & Contracts Division prior to the bid opening deadline. Late bids will be returned unopened.
- (2) All bids must be submitted in ink on the bid form. Cover letters, additional sheets, etc. may be included. The total bid excluding sales tax must appear on the bid form as indicated.
- (3) Erasures, overwrites and use of correction fluid or tape are NOT acceptable. All changes (price, model numbers, part numbers, etc.) must be lined out and corrections inserted adjacent to and initialed by the bidder's authorized representative.
- (4) Vendor is required to quote "NEW" equipment, material or product. Recycled, remanufactured, or previously owned product will not be accepted unless otherwise stated in the Invitation to Bid.
- (5) All bids must include the company name and address and must be signed by an authorized representative of the company; signature must be an original signature, or an original signature stamp, on the County Bid Form.
- (6) Alternate or incomplete bids will NOT be accepted.
- (7) The County, at its sole option, may correct arithmetic or extension errors, and obtain clarification, if necessary.
- (8) If no terms discount is to be offered, the terms portion of the bid form shall state "NET".
- (9) If delivery specified is impossible, bidder must state best delivery available on the bid form. Number of days shall mean calendar days After Receipt of Order (ARO). Bids quoting delivery beyond the requirement may be rejected.
- (10) Bid modifications, corrections, or additions received beyond the bid deadline will NOT be considered.
- (11) Telephone, facsimile, or emailed bids will NOT be accepted.
- (12) Bid prices shall be firm for a minimum of sixty (60) calendar days from the bid opening unless otherwise indicated on the bid form.
- (13) By submitting a response to this Invitation to Bid, Bidder acknowledges and accepts the County's standard terms and conditions incorporated as Exhibit "A".
- (14) Any alteration to the Invitation to Bid must be added in addenda form, and must be issued by the County Purchasing Agent.

- (15) Protest Procedure: Award of bid will be published on the County's website:

<http://edcapps.edcgov.us/contracts/bidresults.asp>

Bidders have ten (10) business days from the date of the posting to submit a letter of protest to the Purchasing Agent. Letter must be signed by an authorized representative stating specific reason(s) for the protest including all relevant facts (law, rule, regulation, criteria).

*Brands:*

- (1) The use of brand and/or manufacturer names in the bid specification is for descriptive purposes only. Unless otherwise specified, products of comparable quality and performance will be considered.
- (2) Bidders offering other than the referenced brands are to note their brand name and catalog model number on the bid form.

*Guarantees:*

- (1) All items purchased shall be guaranteed against defects when used for the purposes for which they were designed for.

*Taxes:*

- (1) Bidders shall NOT include Federal Excise Taxes. An exemption certificate will be furnished to the successful bidder upon request.
- (2) Applicable taxes and fees will be added when the purchase order is issued.

*Samples:*

- (1) Samples of items, when required, must be furnished to the County at the bidder's expense. If possible, samples will be returned upon request and at the bidder's expense. Samples of selected items may be retained for comparison.

*Bonds:*

- (1) The County reserves the right to require the successful bidder to provide a performance bond in an amount determined by the County. Unless specifically required on the bid form, a performance bond will NOT be required.
- (2) Certification of the performance bond shall be required following bid award and prior to the release of a purchase order.
- (3) Unless specifically required on the form, bidder's bonds will NOT be required.

*Award:*

- (1) Regardless of amount, unless specifically approved by the County Board of Supervisors, award shall be made to the lowest responsive, responsible qualified bidder.
- (2) In determining the successful bidder, consideration will be given to quality, delivery, warranty, compatibility with existing equipment, and any other information considered to be in the best interests of the County.
- (3) It is unlawful for any person to furnish supplies or services or transact any kind of business in the unincorporated territory of EL Dorado County without possessing a County business license unless exempt under County Code Section 5.08.070. Contact Tax Collector's Office, 360 Fair Lane, Placerville, CA 95667, telephone (530) 621-5800, for further information.
- (4) In accordance with Board Policy, 5.7.1, effective October 11, 2006, the local vendor preference is 5%. Vendor shall have established a place of business within El Dorado County prior to publication of the call for bids.
- (5) The County of El Dorado is an equal opportunity employer (EOE). Minorities, Females and Handicapped are encouraged to participate (M/F/H).
- (6) If the bid is on an "All or Nothing" basis, bidder shall so state. The County reserves the right to make awards on individual items of a multiple item bid if deemed to be in the best interest of the County.
- (7) The County reserves the right to reject any and all bids, or to waive any informality or nonsubstantial irregularity in any bid.
- (8) The County reserves the right to purchase quantities by necessity only regardless of approximate quantities indicated on the bid form. Bidder shall also have the right to refuse sale in reduced quantities; in such instances, the award shall go to the next lowest qualified bidder.
- (9) In case of default by vendor, the County may procure the articles or service from other source and may recover the loss occasioned thereby from any unpaid balance due the vendor or by proceeding against performance bond of vendor, if any, or by legal process against vendor. The prices paid by County shall be considered the prevailing market price at the time such purchase is made.

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**Requirement(s):** Bidders failing to comply with any of the following requirements will not be considered for the evaluation and award process:

- 1 This is a “brand specific” bid. Bidders must quote “**Gridsmart Camera Signal System**” brand as listed in the Quotation Schedule; alternate brands and models will not be accepted. Failure to bid the desired brand and model will result in your bid being rejected as non-responsive
- 2 “**Minimum**” - Defined as only acceptable level of equipment at lowest level; quotes for “higher level” equipment will be accepted in these areas.
- 3 The awarded vendor shall be required to supervise the installation and testing of the sensors, processor, and other sensor components.

**California Sales & Use Tax Requirement:** Any bidders located outside of the State of California selling goods to the County must possess a valid and current California Seller’s Permit at the time of bidding and maintain such permit in good standing throughout the awarded period.

Provide California Seller’s Permit Number: \_\_\_\_\_

**Delivery:** Product shall be delivered F.O.B. destination, freight prepaid, on ground or inside delivery to the following location:

County of El Dorado  
Department of Transportation  
2441 Headington Road  
Placerville, CA 95667

**Incomplete and Altered Bids:** Incomplete or altered bids, and bids containing items not called for in the bid may be rejected. Bids submitted on forms other than those furnished by the County will not be considered.

**Terms and Conditions:** The County will not consider any terms and conditions other than the terms and conditions contained in the subject bid. Bidders submitting their own terms and conditions will not be considered and will be rejected. Any bid response containing alterations to the General Terms and Conditions or terms and conditions contained in the subject bid, will not be considered and will be rejected.

**Merchantability:** There shall be an implied warranty of merchantability and fitness of an intended use. Any bid submittals taking exception to this requirement may, at the County’s option, be considered non-responsive.

**County’s Rights:** The Purchasing Agent reserves the right to not enter into any agreement, cancel this process at any time, amend this process at any time, or to award more than one contract to the lowest, responsive, responsible bidders if it is in the best interest of the County

**Returns:** The County reserves the right to return product within thirty (30) days of receipt by the County for credit or refund without a shipping or restocking fee. Product returned shall be in good condition and in the original package (if applicable). Defective product or product under warranty may not always be returned in the original package.

**Federal, State, and Local Laws:** The successful bidder must operate in conformity with all applicable, federal, state, and local laws. It is the responsibility of the awarded bidder to ensure that all permits and/or licenses required for operation are valid and current. Failure to comply with this provision may be cause to cancel any contract awarded, and award will be made to the next lowest, responsive, responsible bidder.

**Business License:** It is unlawful for any person to furnish supplies or services, or transact any kind of business in the unincorporated territory of El Dorado County without possessing a County business license unless exempt under County Code Section 5.08.070. Contact the Tax Collector's Office at 360 Fair Lane, Placerville, CA 95667, or phone (530) 621-5800, for further information. El Dorado County is an equal opportunity employer (EOE). Minorities, females, and handicapped are encouraged to participate.

It is not a requirement to possess a County business license at the time of bid submittal. Successful bidders may be required to possess a County business license to award bid.

**Local Vendor Preference:** In accordance with Board of Supervisor's Policy C-17, Section 5.7.1, a local preference credit of 5% for El Dorado County businesses will be permitted when evaluating bids for supplies and equipment that are not part of a public project.

In order to qualify for the local preference authorized by this section, the vendor seeking such preference shall be required to submit with its bid a statement containing relevant information which demonstrates compliance with the provisions of this section. The statement shall be on a form provided by the Purchasing Agent and shall be signed under penalty of perjury. Any person, firm, corporation or entity intentionally submitting false information to the County in an attempt to qualify for local preference may be prohibited from bidding on El Dorado County products and services for a period of one (1) year from the date of the false submittal. Bidders claiming local vendor preference must submit the Affidavit of Eligibility with their bid response. The Affidavit may be downloaded by clicking on the following link:

<https://www.edcgov.us/Government/Contracts/Documents/LocalVendorPreferenceForm.pdf>

Where state sales tax will be paid for the purchase, the local business must possess a valid resale license from the State Board of Equalization showing evidence of a local business address within El Dorado County. If the local business has more than one office in the State of California, the office located in El Dorado County shall be the point of sale credit for the purpose of sales tax calculation.

**Compliance:** Late, incomplete, incorrect deliveries or excessive back orders will be documented, and performance evaluated when considering contract continuation or extension. Inaccurate or erroneous billing will also be documented and monitored for the purpose of evaluating performance when considering continuation or extension of contract. Failure to meet quoted delivery time frames, or inaccurate or erroneous invoices (as determined by the Purchasing Agent) may be cause for the County to cancel the balance of the awarded blanket purchase order and award will be made to the next lowest bidder. Failure to receive County concurrence for substitutions or alternates will be documented and considered when evaluating continuation or extension of contract.

**Invoices and Payment Terms:** Invoices are to be mailed to the County department(s) specified on the resulting purchase order or contract. All invoices must include the purchase order number or contract number; County stock numbers when applicable; product description; and reference to back ordered

items. Invoices must be exclusive of product other than bid items. Failure to comply may result in delayed payments.

The County will make payment on a Net forty-five day (45-day) basis unless a cash discount of one-half percent (1/2%) or greater, which amounts to \$2.50 or more, is allowed for payment within not less than twenty (20) days. The payment term shall begin on the date the merchandise is inspected, delivered, and accepted by the County, or on the date a correct invoice is received in the office specified in the order, whichever is later. Prompt payment discounts shall be considered earned if payment is postmarked or personally delivered within the prescribed term. The beginning date described above shall be considered day zero for the purposes of counting days in the prescribed term.

**EI Dorado County Web Site Requirements:** It is the bidder's responsibility to monitor the County's website for possible addenda to this bid to inform him/herself of the most current specifications, terms, and conditions, and to submit his/her bid in accordance with the original bid requirements and all addenda. All available bids and related addenda can be found at:

<https://edcapps.edcgov.us/contracts/invite.asp>

Failure of bidder to obtain this information shall not relieve him/her of the requirements contained therein. Those bidders not acknowledging and returning addenda as required will not be considered and will be rejected as "non-responsive."

**Public Agency:** It is intended that other public agencies (i.e., city, special district, public authority, public agency, and other political subdivisions of the State of California) shall have the option to participate in any agreement created as a result of this Invitation to Bid with the same terms and conditions specified therein, including pricing. The County shall incur no financial responsibility in connection with a purchase order from another public agency. The public agency shall accept sole responsibility for placing orders and making payment to the vendor.

**Addenda:** Addenda to this bid are valid only if in writing and issued by the Procurement & Contracts Division and are required to be acknowledged and returned by participating bidders in order for the bidder to be considered further in the evaluation process. Unless otherwise indicated, those bidders not acknowledging and returning Addenda as required will not be considered and will be rejected as "non-responsive."

**Non-Collusion:** The bidder certifies that this bid response is made without any previous understanding, agreement or connection with any person, firm or corporation making a bid for the same project, and is in all respects fair, without outside control, collusion, fraud, or otherwise illegal action.

**Conflict of Interest:** Bidder states that no County officer or employee, nor any business entity in which they have an interest, has an interest in the bid award been employed or retained to solicit or aid in the procuring of the resulting contract, nor that any such person will be employed in the performance of such contract.



**Evaluation:** Bids will be evaluated based on meeting or exceeding minimum specifications. Bids submitted on the basis of “All or Nothing” may be rejected. Bid evaluation shall include applicable prompt payment terms discount. If payment cannot be made within the discount period, payment terms shall revert to Net thirty (30) days.

**Award:** The bid may be recommended grand total to the lowest responsible and responsive bidder complying with the provisions of the Invitation to Bid. In determining whether a bid is lowest and responsive, and the bidder is responsible, the following may be considered by the County: (a) Ability to perform the service required within the specified time; (b) Reputation, judgment and experience; (c) The quality of performance in previous contracts; (d) Previous compliance with laws as well as employment practices; (e) Financial ability to perform the contract; (f) The quality, availability and adaptability of the supplies or the contractual services to the particular use required; (g) Ability to provide maintenance and service; (h) Whether the bidder is in arrears to the County, in debt on contract, is a defaulter on surety to the County or whether the bidder’s taxes or assessments are delinquent; (i) The resale value and life cycle costs of the items; and (j) Such other information as identified in the Purchasing Ordinance having bearing on the decision to make the award. The decision of the County Board of Supervisors shall be final in determining the successful bidder.

**Bid Results:** The Procurement & Contracts Division does not mail out hard copy letters advising participating bidders of the bid results. For bid results, please visit our website at:

<http://edcapps.edcgov.us/contracts/bidresults.asp>

Bid results will be posted approximately ten (10) to fourteen (14) business days after the bid opening deadline date or when the evaluation is complete.

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**Bid Submittal:** *All bidders are advised to read the General Terms and Conditions starting on Page three (3) through five (5) of this Invitation to Bid prior to submitting a bid.*

Bids must be submitted in a sealed container or envelope clearly marked on the outside:

**“BID # 19-550-042 – DO NOT OPEN”**

Bids will be accepted Monday through Friday from 8:00 a.m. to 5:00 p.m. Bids must be received in the Procurement & Contracts Division by **3:00 p.m., January 16, 2019:**

**Mailing/Physical (Fed Ex, UPS etc)**  
EL DORADO COUNTY  
PROCUREMENT & CONTRACTS (PURCHASING)  
330 FAIR LANE  
PLACERVILLE, CA 95667

It is the responsibility of the bidder to assure that the bid is received in the Procurement & Contracts Division prior to the bid opening deadline date and time. Bids received beyond the bid opening deadline will not be accepted and will be returned unopened. The time stamp clock located in the office of the Procurement & Contracts Division will serve as the official time clock.

Late bids, unsealed bids, unlabeled bids, incomplete bids, or bids otherwise not in compliance with the General Terms and Conditions of this Invitation to Bid, will be rejected.

By submitting a response, bidder acknowledges and accepts the General Terms and Conditions and all terms and conditions contained in this Invitation to Bid.

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**QUOTATION SCHEDULE**

**Quantity Two (2) - Gridsmart Camera Signal Systems as Specified**

**1.0 Video Detection - Video Image Vehicle Tracking and Detection System (VIVTDS)**

Included are the minimum requirements for a system that views, captures, and derives data based on the vehicles that pass within the sensor field of view along a highway, road, ramp, or other commonly used transit pathway via processing video images. The detection of vehicles by a VIVTDS can be accessed and used by and for a large number of applications, including:

- Vehicle detection and actuation at intersections
- Highway flow monitoring
- Ramp metering
- Advanced detection
- PED crossing extensions
- Temporary construction zone detection
- Situational awareness of location area, including an intersection center
- Automated alerts and reports of potentially unsafe conditions, incidents, malfunctions, or signal timing inefficiencies
- Collecting and archiving traffic data for future analysis to improve performance by optimizing timing plans at intersections

The system shall have a modular electrical design and use Ethernet to connect and network with the different system components. Streaming video images, alerts, and data shall be transmitted from the field back to a Traffic Operations Center (TOC) via the systems client software and to the VIVTDS's cloud by using any or combination of the following

- Fiber optic
- Microwave
- WAN
- TCP/IP
- Internal modem
- Any other means of commonly used communication practices and standards for digital content and information.

The VIVfDS client software shall provide graphical user interfaces between the administrator(s) and permissioned users of the system and the VIVTDS sensor(s) itself. The software shall allow the user to configure sites, conduct maintenance, monitor information relayed from the sensor(s), and provide access to real-time data, system and user defined alerts, and access to historical data collected by the sensor(s). The client software should be installed on a single personal computer or across a network of computers. One or more users will be able to access VIVTDS simultaneously.

## 2.0 System Hardware

The required hardware shall include the following:

- One VIVTDS processor capable of connecting with 1 to 8 sensors
- One or more VIVTDS sensors, with at least one sensor having a fisheye lens for omnidirectional viewing of the roadway or intersection.
- One 1.5" straight-thread, swivel bracket, and surge protector junction unit, per each fisheye sensor
- One surge protector junction unit, per each advanced/stopline sensor
- One mounting pole and bracket (90° pole per each fisheye sensor; or straight, vertical pole per each advanced/stopline sensor)
- One Ethernet Protection Module (surge protector located in the traffic cabinet), per each VIVTDS sensor
- VIVTDS interface cables to the traffic signal controller based on model/type
- Optional portable field computer to configure and monitor system operations
- Optional computer to configure and monitor system operations at the TOC or other remote location
- Optional Ethernet Repeater to extend VIVTDS sensors beyond 100 meters
- Optional POE Powered Switch for use with more than two sensors

## 2.1 Sensor Hardware

### Fisheye Sensor

The VIVTDS should have at least one downward-facing fisheye sensor capable of seeing the center of the intersection and have an omnidirectional line of site to track vehicles entering and exiting the intersection. Other required features shall include the following:

- Color images outputted into digital format as MJPEG images
- Horizontal resolution of at least 2560 lines and vertical resolution of at least 1920 lines
- A five (5) megapixel CMOS camera with an active-pixel sensor (APS)
- Camera lens shall not require adjustment and is always in focus
- A thermostatically controlled heater residing inside the enclosure to reduce the effects of ice and condensation
- Any plastics used in the enclosure shall have ultraviolet inhibitors
- A waterproof and dust tight aluminum enclosure

The sensor dimensions excluding connectors shall not exceed 9.9" x 7 .9" (height x diameter). The weight of the sensor including the enclosure shall not exceed eight 8 lbs. The VIVTDS sensor manufacturer shall provide a lifetime "always in focus" guarantee on the iconic bell shaped fisheye camera

### Optional VIVTDS Sensors

Certain projects will have special requirements or needs, such as advanced or stopline detection. In these instances, an additional VIVTDS sensor with a field of view of either 30° - 50° for stopline detection or a field of view of 9° - 18° for advanced detection should be used. The sensor dimensions

excluding connectors and mounting bracket shall not exceed 8" x 15" x 3.5" and the weight should not exceed eight (8) lbs. Other required features are the following:

- Color images outputted into digital format as MJPEG images
- Horizontal resolution of at least 2560 lines and vertical resolution of at least 1920 lines
- A 5 - 50 mm varifocal lens set for the specific application
- A five (5) megapixel CMOS camera with an active-pixel sensor (APS)
- A thermostatically controlled heater residing inside the enclosure to reduce the effects of ice and condensation
- A sun shield to minimize lens exposure to the sun
- A waterproof and dust tight powdered coated aluminum housing

The sensor's mounting bracket should be easily mounted to a standard 1.5" vertical pole and allow for the installer to adjust the sensor's horizontal position with one hand and tighten the bracket without having to support the sensor simultaneously.

The VIVTDS shall also support thermal imaging sensors for use in specific situations.

## 2.2 Processor Hardware

The VIVTDS processor shall support 1 or 2 fisheye sensors, or if equipped with 1 fisheye sensor the VIVTDS processor should, at a minimum, be capable of simultaneously supporting up to four (4) additional VIVTDS sensors for special requirements such as advance detection or underpass detection.

The VIVTDS processor shall comply with NEMA standards, TS-1 Type 1, and 2; TS- 2; 170/2070; and ITS. The VIVTDS processor shall provide the following inputs and outputs:

Type	Inputs	Outputs
TS1	24	24
TS2	16	64
170/2070	8	24
ITS	16	64

The VIVTDS processor will have at a minimum four (4) USS 3.0 ports for expansion flexibility and have a built-in modem.

The VIVTDS processor shall be no more than 1 U high with dimensions, excluding connectors, not to exceed 8.5" x 11.5" x 1.75" and weigh no more than 5.2 lbs. The unit shall have flexible mounting options including the ability to lie flat on a cabinet shelf, be mounted in a standard traffic cabinet rack with optional mounting ears, or be installed vertically with optional base. The outer enclosure shall be a powdered coated aluminum.

## 2.3 Electrical

The VIVTDS sensor(s) will use five (5) watts nominally and a maximum of fifty (50) watts with active heaters. The sensor(s) will be Power Over Ethernet (POE) and will only require a single burial grade, gel-filled RJ-45 CAT5e cable for both power and data.

Each VIVTDS sensor shall have its own surge protector junction unit and EPM surge protection unit in the traffic cabinet.

The VIVTDS processor shall operate within a range of 89 to 240 VAC, 60Hz single phase. Power to the VIVTDS processor is from the transient protected side of the AC power distribution system in the traffic control cabinet where the VIVTDS processor is installed.

## **2.4 Cabling and Surge Protection Units**

CAT5e cabling shall be a high performance shielded direct burial data cable capable of 350MHz bandwidth for data applications. The cabling shall consist of a 24 AWG solid bare copper wire with 8 conductors in a gel filled core. The jacket shall consist of linear low-density polyethylene (LLDPE) that is UV resistant and have a cable diameter of no more than 6.5 mm. The cable shall have easily identifiable striped pairs as follows:

- Orange-White, Orange
- Green-White, Blue
- Blue-White, Green
- Brown-White, Brown

The cable shall be rated at a minimum for 50 V

The surge protector junction unit for the VIVTDS sensor shall be no more than three (3) ft. from the VIVTDS sensor and shall provide protection against a transient pulse with a pulse shape of  $8/20\mu\text{s}$  and a max current of 75A. The unit shall weigh no more than two (2) lbs.

The EPM, surge protection unit for the VIVTDS sensor, shall have at most a max impulse discharge current of 40 KA and an impedance of at least 100 ohms. The unit should have at least Line-Line and Line-Ground protection options, and the POE current should not exceed 1.8A.

## **2.5 Environmental**

The VIVTDS sensors and processor will need to meet or exceed the NEMA standard of -29° F up to 149° F and meet or exceed a 5-30Hz vibration test as well as a 1 OG shock test.

The VIVTDS processor shall have at least 0% to 95%, non-condensing. The VIVTDS sensor(s) shall have at least 0% to 100% relative humidity.

## **3.0 System Software**

Each VIVTDS system will include client software for up to 8 sensors for detecting and counting the vehicle's entrance and exit of the intersection. The VIVTDS system will also include software for communicating with the traffic controllers and other electronic devices.

The client software shall be included with each VIVTDS system and should be downloaded and run on any personal computer with a Windows 7 or newer operating system. The client software at minimum should include management tools to perform the following:

- View, diagnose, configure, and reset individual sensor outputs
- View the status of inputs to enable setup and troubleshooting in the field
- Configure and view calls and phases
- The ability to create and define, as well as edit, vehicle zones, road masks, object masks, and pedestrian zones by drawing arbitrary shaped polygons using a computer
- View the site's configuration history
- Publish and revert back to previous configuration
- View video and images from the sensor within the software's interface
- Optionally access and use an API that is documented online and that uses HTTP
- Provide System Alerts for diagnostic and administrative events

The VIVTDS system will need to have optional data packages for purchase that provide count data, access to real time data, and system and user defined alerts. The count data shall be accessible directly from the processor or from a remote computer with a network connection. The count data will include at least the following type of reports:

- Turning movement counts, including U-turns
- Length based vehicle classifications
- Incidents reporting
- Volume
- 7 Day Volume
- Occupancy on Green
- Occupancy on Red
- Percentage of Arrivals on Green
- Percentage of Arrivals on Red

All reports should be exportable and downloadable in any of the following formats:

- PDF
- Excel
- Rich Text Format
- TIFF Image
- Web Archive

The alerts/notifications package for purchase should include at a minimum the following types of alerts:

- Wrong way vehicle detection
- Loss of visibility event
- Volume Exceeded

## **4.0 Vehicle Detection.**

VIVTDS system shall provide real time vehicle detection (within 500 milliseconds (ms) of vehicle arrival). The system should detect the presence of vehicles for up to 64 detection zones per VIVTDS sensor. The detection zones shall be sensitive to the direction a vehicle travels and the direction to be detected by each detection zone shall be programmable by a client software user.

### **4.1 Detection Zone Placement**

The VIVTDS system should provide a flexible detection zone placement anywhere within one hundred (100) meters of the VIVTDS sensors. Preferred presence detector configurations shall be arbitrarily shaped polygons, including simple boxes, drawn across lanes of traffic or placed in line with lanes of traffic. A single VIVTDS sensor should replace one or more conventional detector loops.

### **4.2 Detection Zone Programming**

Placement of detection zones will be done by means of a graphical interface using the MJPEG image of the roadway. The client software displays images of the detection zones overlaid on the video image of traffic while the VIVTDS processor is running. The detection zones, when operating, shall display outlined or filled, with a visible change indicating activation.

A laptop should be used to draw detection zones. Alternatively, a mouse, keyboard, and monitor may be connected directly to the processor to configure a site. The detection zones should be capable of being sized and shaped to provide optimal road coverage and detection. It should be possible to upload detector configurations to the VIVTDS processor and to retrieve the sensor configuration that is currently running in the VIVTDS processor through the client software. The configuration should also be retrievable from the VIVTDS system's cloud if properly backed up.

The user will be able to edit previously defined detector configurations in order to fine tune the detection zone placement size and shape. Once a detection configuration has been created, the system will provide a graphic display of the new configuration on its monitor. While this fine-tuning is being done, the sensor will be required to continue to operate from the sensor configuration, currently in place. A user should be able to use a system command to revert to previous configurations stored in the client software or on the VIVTDS system's cloud if properly backed up.

When a vehicle occupies a detection zone, the detection zone on the live video will indicate the presence of a vehicle, thereby verifying proper operation of the system. The presence of the vehicle as well as the signal states will be indicated via colored LED lights on the front panel of VIVTDS processor. With the absence of images, the VIVTDS processor's display shall indicate proper operation of the detection zones.

Detection zones shall be sensitive to the direction of vehicle travel. The direction will be capable of being detected by each detection zone and will be programmable by the user. The vehicle detection zones will not activate if a vehicle is traveling in any direction other than the one specified for detection in the zone. Cross-street and wrong way traffic shall not cause a false detection.



Detection zones will be capable of an optional user defined call to detect a side entrance (90° or less angled entrance).

### **4.3 Design Field of View**

The VIVTDS system will be able to reliably detect vehicle presence in the design field of view. The design field of view shall be defined as the sensor view when the image sensor is mounted thirty (30) feet (9 meters) or higher above the roadway, when the sensor is in front of all stop lines, no more than seventy-five (75) feet from the intersection center, and the beginning of the detection area is not greater than one hundred and fifty (150) feet from the image sensor. Within this design field of view, the VIVTDS processor should be capable of setting up a single detection zone for point detection (equivalent to the operation of a 6' x 6' inductive loop). A VIVTDS sensor, placed at the proper mounting height, is able to monitor up to and including five (5) traffic lanes per approach simultaneously. A single fisheye lens VIVTDS sensor, placed at the proper mounting height, should be able to monitor detection zones in an intersection of at a minimum of five (5) approaches.

### **4.4 Detection Performance**

Detection accuracy of the VIVTDS system shall be comparable to properly operating inductive loops. Detection accuracy should include the presence of any vehicle in the defined detection zone regardless of the lane the vehicle is occupying. Occlusion produced by vehicles in the same or adjacent lanes shall not be considered a failure of the VIVTDS processor, but a limitation of the VIVTDS sensor placement.

Detection shall be 98% accurate in good weather conditions with slight degradation possible under adverse weather or road conditions (i.e. rain, snow, fog). Detection will be expected for the entire design field of view on a lane by lane or by approach basis.

Equipment failure, either sensor or VIVTDS processor, shall result in constant vehicle detection on affected detection zones. The VIVTDS system will be required to have the ability to place a constant call to a specific zone, if said zone loses visibility, while simultaneously making calls in the traditional manner in the remaining zones.

### **5.0 System Software Operation**

The VIVTDS must transmit and receive all information needed for sensor setup, to monitor vehicle detection, to view vehicle traffic flow, and to interpret stored data. The remote communications link between the VIVTDS processor shall not interfere with the on-street detection of the VIVTDS processor.

The user should be able to view the detection area in a horizon to horizon fisheye view or in a configurable four (4) pane flattened view on the same screen. Each view should be able to be customized by the user, with the ability to digitally pan-tilt-zoom.

### **6.0 Installation and Training**

The supplier of the VIVTDS system shall supervise the installation and testing of the sensors, processor, and other sensor components.

System installers will be required to be certified by the system manufacturer. A manufacturer's instructional guide will not be considered an adequate substitute for practical, classroom training and formal certification by an approved agency.

However, the manufacturer shall provide an online user guide and an electronic copy of the user guide within the client software and on board the VIVTDS processor for reference.

Formal levels of factory authorized training are required for installers, contractors and system operators. All training must be certified by the VIVTDS system manufacturer.

**7.0 Warranty, Maintenance and Support**

The video detection system must be warranted to be free of defects in material and workmanship for a period of three (3) years from date of shipment from the manufacturer's facility. During the warranty period, the system manufacturer will be required to repair with new or refurbished materials, or replace at no charge, any product containing a warranty defect provided the product is returned FOB to the supplier's factory or authorized repair site. Return product, product for repair, or product to be replaced under warranty by the supplier shall have prepaid transportation. This warranty does not apply to any products damaged by accident, improperly operated, abused, serviced by unauthorized personnel or unauthorized modification.

Ongoing software support by the manufacturer includes updates of the VIVTDS processor's engine and updates to the client software shall be provided free of charge for the life of the system.

<b><u>PRODUCT DESCRIPTION</u></b>	<b><u>UNIT COST / EACH</u></b>
<b>GRIDSMART CAMERA SIGNAL SYSTEM with CAT 5 WIRING</b>	<b>\$ _____ /each</b>

**(The remainder of this page intentionally left blank.)**

**Additional Purchases**

**ADDITIONAL PURCHASES – WRITTEN QUOTE REQUIRED**

Upon request, bidders must provide a written quote for ITEMS not listed in the Quotation Schedule above.

Written quotes must include the date of request, a quote reference number, and documentation of the retail cost less any offered discounts, and be valid for a minimum of thirty (30) days.

Invoices that include items not on the Quotation Schedule must have a copy of the original quote attached. Payment of invoices which require, but do not include, such documentation will be delayed until receipt of the required document(s).

Erasures, overwrites and use of correction fluid or tape are NOT acceptable.  
Refer to Item #3 of the General Terms and Conditions for specific instructions.

**Prompt Payment Discounts**

**PROMPT PAYMENT DISCOUNT TERMS**

Indicate percentage discount for prompt payment.

*(Note: Discount of less than 2% or with payment terms of less than twenty (20) days will not be accepted and will not be considered for evaluation purposes.)*

\_\_\_\_\_ % Discount if paid within \_\_\_\_\_ days from date invoice is stamped dated in  
by Department.

**Indicate “Net” if no Prompt Payment Discount Terms are offered**

Erasures, overwrites and use of correction fluid or tape are NOT acceptable.  
Refer to Item #3 of the General Terms and Conditions for specific instructions.

**Delivery**

**DELIVERY**

Indicate the number of days after receipt of order (ARO) for delivery: \_\_\_\_\_  
Refer to Page six (6), “Delivery,” for specific delivery requirements.

Erasures, overwrites and use of correction fluid or tape are NOT acceptable.  
Refer to Item #3 of the General Terms and Conditions for specific instructions.

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**STATEMENT OF NO RESPONSE**

If Vendor is not submitting a response to this BID, RFP, RFI, RFQ, etc., please complete and return this form to: El Dorado County Procurement & Contracts, 330 Fair Lane, Placerville, CA 95667, or fax to (530) 295-2537. Failure to respond to a BID, RFP, RFI, RFQ, etc., or submit a 'Statement of No Response' three (3) times in succession will result in removal from the County's bidders list.

*Board of Supervisors Procurement Policy C17, Section 8.2:*

*Removal of a vendor from the bidders list may be for:*

- (a) Failure to respond to more than three (3) consecutive formal invitations to bid; or*
- (b) Failure to respond responsibly to more than three (3) notices to bid; or*
- (c) Failure to perform after an award of a bid; or*
- (d) Other reasons that show the bidder to be a non-responsive or non-responsible bidder.*

*The Purchasing Agent must review and approve the removal of a vendor from the bidders list. The Purchasing Agent shall notify the vendor in writing that said vendor has been removed from the bidders list. Vendors removed from the bidders list shall have an opportunity to request reinstatement at any time, and may submit a bid notwithstanding if they have been removed from the list. The request for reinstatement must be submitted to the Purchasing Agent on such forms as provided by the Purchasing Agent.*

Invitation # (BID, RFP, RFI, RFQ, etc.): \_\_\_\_\_

Name of Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Signature: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Date: \_\_\_\_\_

The above has declined to submit a bid response for the following reason(s) (please check all that apply):

- We do not offer this commodity and/or service or an equivalent.
- Insufficient time to respond to the RFP.
- Our schedule would not permit us to perform.

Remarks:

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## Exhibit "A" STANDARD TERMS AND CONDITIONS

*By shipping on an order, the Vendor warrants that they have read and are in compliance with these instructions.*

**1. Taxes:** County is exempt from payment of Federal Excise Tax; Federal tax should not be included in any prices contained herein.

**2. Alterations:** No alteration in any of the terms, conditions, delivery, price, quantities, specifications or services of this contract will be effective without prior consent of the Purchasing Agent of the County.

**3. Failure to Deliver:** If Vendor fails to deliver an article or service of the quality or quantity, in the manner or within the time called for by this contract: such article or service may be bought from any source by Purchasing Agent and if a greater price than named in the contract be paid for such article or service, the excess price will be charged to and collected from Vendor or sureties on its bond if bond had been required; or, the County may terminate the contract for default; or, the County may return deliveries already made and receive a refund. For any exception to the delivery date as specified on this Purchase Order, the Vendor shall give prior notification and obtain approval thereto from the Purchasing Agent of the County. Failure or refusal of Vendor to perform any work or service or do any act required under this contract shall constitute a default.

**4. Force Majeure:** Vendor shall not be liable for any delay or failure to deliver any or all the goods if that delay or failure is caused by labor disputes, strikes, war, riots, insurrection, civil commotion, fire, flood, accident, storm or any act of God. The County shall not be liable for failure to take delivery of the goods attributable to any of the causes specified in this paragraph if they render it commercially impractical for the County to receive the goods. When either Vendor or the County claims an excuse for nonperformance under this paragraph, they must give reasonable notice to the other party.

**5. Proposal, Quotation and Attachments:** This contract incorporates by reference on the face of this form, the provisions of any related bid request issued by County, any bid submitted by Vendor, or both. This contract incorporates by reference on the face of this form, the provision of any attachments. Vendor agrees that in the event of conflicting language between this contract and Vendor's printed form, the provisions of this contract shall take precedence. This section shall supersede any language in the Vendor's terms and conditions attempting to nullify County terms and conditions or to resolve language conflicts in favor of the Vendor's terms and conditions.

### **6. Warranty:**

**6.1 Warranty For Goods:** Vendor warrants to the County and/or County customers that any and all goods covered by this contract will be new unless otherwise specified and will conform to the drawings, specifications, samples, description and time provisions furnished by the County and will be of first-class material and workmanship and free from defect. In the event of a defect, malfunction or failure of the goods to conform with this warranty, the County shall have the right to require the Vendor to repair or replace the goods without charge within five (5) business days from being notified of the defect. If the Vendor cannot replace the goods and repair either is not commercially practicable or cannot be made within such five (5) business day period, the County shall have the right to require the Vendor to refund the purchase price. Defective goods rejected by the County may, without prejudice to any other legal remedy (including, without limitation, incidental and consequential damages) be held at Vendor's risk and returned to Vendor at Vendor's expense. This warranty shall not be deemed to be waived by the County for any reason, including, without limitation, the County's acceptance of the goods or the County's failure to notify Vendor thereof. Further, the failure of the County to reasonably specify any defects in rejected goods shall not prevent the County from relying on the defect to establish a breach, even though the Vendor could have cured the defect on proper notification.

**6.2 Warranty for Services:** Vendor warrants to County that any and all materials and equipment furnished under this contract will be new unless otherwise specified and that all services will be of good quality, free from faults and defects and in conformance with the contract. Neither final payment nor inspection of Vendor's services shall constitute an acceptance of services not done in accordance with this contract or relieve Vendor of liability in respect to any express warranties or responsibilities for faulty material or workmanship. Upon request of County, Vendor shall immediately remedy any defects in the services, materials and/or equipment and pay for any damage resulting therefrom. The County shall have the unqualified option to make any needed replacement or repairs itself or to have such replacement or repairs done by the Vendor. In the event the County elects to have said work performed by the Vendor, the Vendor agrees that the repairs shall be made and such materials as are necessary shall be furnished and installed within a reasonable time after the receipt of demand from the County; however, in no event shall such period exceed fifteen (15) calendar days. If the Vendor shall fail or refuse to comply with its obligations under this section, the County shall be entitled to all costs and expenses, including attorney's fees, reasonably incurred by reason of the said failure or refusal.

**7. Termination:** At any time and without cause, the County shall have the right, at its sole discretion, to terminate this contract by giving seven (7) calendar days written notice to Vendor. In the event of such termination, Vendor shall only be entitled to payment for those goods that have been delivered and accepted by the County or services satisfactorily rendered through the date of termination.

**8. Identification:** Purchase Order number must appear on all invoices, packing lists, shipping notices, instruction manuals, and any correspondence. Invoices must be fully itemized and show date, weights, sizes, quantities, discounts, etc. Render separate invoices for each Purchase Order.

**9. Cash Discounts:** In connection with any cash discount specified in this contract, time will be computed from the date of completed delivery of the goods or the completion of the performance of services as specified, or from the date that correct invoices are received if the latter date is later than the date of delivery and/or performance. For the purpose of earning the discount, payment shall be deemed to have been made on the date of mailing of the County warrant or check. Payment shall be made within thirty- (30) days following County's receipt of itemized invoices in triplicate. Payment shall be made at the prices stipulated herein for goods or materials delivered or services rendered and accepted less deductions, if any, as herein provided. Payment on partial deliveries or services may be made whenever amounts due so warrant or when requested by the Vendor and approved by the County.

**10. Assignment:** This contract may not be assigned in whole or in part without the prior written consent of the County.

**11. Independent Capacity:** In the performance of this Purchase Order, agents and employees of the Vendor shall act in an independent capacity and not as officers, employees or agents of the County.

**12. Indemnity:** The Vendor shall defend, indemnify and hold the County harmless against and from any and all claims, suits, losses, damages and liability for damages of every name, kind and description, including attorneys fees and costs incurred, brought for, or on account of, injuries to or death of any person, including but not limited to workers, County employees and the public, or damages to property or any economic or consequential losses, which are claimed to or in any way arise out of, or connected with the Vendor's services, operations or performance hereunder, regardless of the existence or degree of fault or negligence on the part of the County, the Vendor and employee(s) or any of these, except for the sole or active negligence of the County, its officers and employees, or as expressly proscribed by statute. This duty of Vendor to indemnify and save County harmless includes the duties to defend set forth in California Civil Code Section 2778.

**13. Nondiscrimination:** Vendor shall comply with all applicable federal, state and local laws, rules and regulations in regard to nondiscrimination in employment because of race, color, ancestry, national origin, religion, sex, marital status, age, medical condition, pregnancy, disability or other prohibited basis. All nondiscrimination rules or regulations required by law to be included in this contract are incorporated by this reference.

**14. Patent Indemnity:** The Vendor agrees to hold the County, its officers, agents, servants and employees harmless from liability of any nature or kind because of use of any copyrighted, or uncopyrighted composition, secret process, patented or unpatented invention, articles or appliances furnished or used under this contract, and agrees to defend, at Vendor's sole expense, any and all actions brought against the County or the Vendor because of the unauthorized use of such articles.

**15. Applicable Law and Forum:** This contract shall be construed and interpreted according to the substantive law of the State of California excluding the law of conflicts. Any action to enforce the terms of this contract or for the breach thereof shall be brought and tried in the County of El Dorado.

**16. Funding:** Funds for this Purchase Order are available on a fiscal year basis. Should funds not be available, this Purchase Order shall be cancelled in its entirety.

**17. Business License:** It is unlawful for any person to furnish supplies or services or transact any kind of business in the unincorporated territory of El Dorado County without possessing a County business license unless exempt under County Code Section 5.08.070. Contact Tax Collector's Office, 360 Fair Lane, Placerville, CA 95667, telephone (530) 621-5800, for further information.

**18. Returns:** The County reserves the right to return product within thirty (30) days of receipt by the County for credit or refund without a shipping or restocking fee. Product returned shall be in good condition and in the original package (if applicable). Defective product or product under warranty may not always be returned in the original package.

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