

Request For Proposals

For San Mateo County Smart Corridor System Maintenance Services

Release Date: Friday, March 17, 2017

Proposal Due Date: Friday, April 14, 2017

**City/County Association of Governments of San Mateo County
555 County Center, 5th Floor
Redwood City, California 94063**



The City/County Association of Governments (C/CAG) of San Mateo is requesting proposals for traffic system maintenance services to help maintain the smart corridor equipment and coordinate with the network monitoring consultant. The San Mateo County Smart Corridor project is an Intelligent Transportation System (ITS) project extending 20 miles along El Camino Real (State Route 82) from the Santa Clara County line to I-380 and includes major local streets connecting to US-101.

The Smart Corridor project provides a countywide traffic management system infrastructure that enables local agencies and Caltrans to proactively manage day to day traffic on local streets and also facilitate local traffic impacts due to major incidents on the freeway. The primary objective of this project is to provide support for local arterial coordination during periods of freeway detours to the local arterials and determine when the existing equipment needs to be updated and/or repaired. The proper operation of the local arterials is the most critical part of the San Mateo County Smart Corridor Program.

SUBMITTAL REQUIREMENTS

Each proposal shall be no more than 80 bound pages, excluding resumes of staff members, promotional material, project experience and references. Dividers, covers and letters of transmittal will not be included in the page count. Each page shall be 8.5"x11", single sided, single- or double-spaced, use 12-point Times New Roman font, and have a 1" margin on each side; foldout pages shall not be submitted. Each page shall be sequentially numbered and a table of contents shall be provided.

One (1) original proposal document shall be submitted. This document shall include an ink-signed cover letter signed by an authorized representative of the firm committing to provide the services within the proposed Request for Proposal (RFP) and stating it is applicable to this project. Failure to furnish this original proposal document shall result in disqualification of the proposal. All document submittals shall also include the following: five (5) hard copies, original files, in Adobe Acrobat (PDF) version. Each copy shall meet the same requirements as the original. Each copy need not include the cover letter. Original electronic files and Adobe Acrobat copies shall be provided to the Project Manager on a CD/DVD and/or shared on a secure access FTP.

Addenda, if issued, will be sent to known holders of this RFP and posted on the C/CAG website. Each CONTRACTOR is solely responsible for acquiring all necessary information, addenda and/or materials. Information provided by C/CAG is being provided as such and C/CAG is not responsible for its accuracy and completeness. Each CONTRACTOR is responsible for determining field and central site conditions.

Questions regarding this RFP shall be submitted in writing no later than Wednesday, March 29, 2017. C/CAG shall provide email responses to questions and post responses to all questions on the C/CAG website no later than Wednesday, April 5, 2017. Proposals or unsolicited amendments to Proposals arriving after the proposal due date will be rejected as not meeting the mandatory requirements of this RFP. To withdraw a proposal, a CONTRACTOR must submit a written request to C/CAG. After withdrawing a previously submitted proposal, a

CONTRACTOR may submit another proposal at any time up to the deadline for submitting proposals. C/CAG shall not accept any amendments, revisions, or alterations to proposals after the deadline for proposal submittal.

C/CAG is not liable for any costs incurred by a CONTRACTOR before entering into a formal contract. Costs of developing the proposal or any other such expenses incurred by a CONTRACTOR in responding to the RFP, are entirely the responsibility of the CONTRACTOR, and shall not be reimbursed in any manner by C/CAG.

The proposal should be delivered to:

City/County Association of Governments of San Mateo County (C/CAG)
555 County Center, 5th Floor
Redwood City, CA 94063
Attention: John Hoang
Phone: 650-363-4105
Fax: 650-361-8227
E-mail: jhoang@smcgov.org

C/CAG accepts no responsibility for the timely delivery of materials and each CONTRACTOR is solely responsible for acquiring necessary information, addenda and/or materials. Any false statement(s) by a CONTRACTOR will void the proposal and eliminate the CONTRACTOR from further consideration.

Proposals must be received **NO LATER THAN 5:00 P.M Friday, April 14, 2017**. Late proposals shall be rejected and returned unopened to the CONTRACTOR. The deadline is absolute and proposals received after the due date and time shall not be considered. A CONTRACTOR must select a method of delivery that ensures the proposal will be delivered to the correct location by the due date and time.

Each submittal should include the following information:

1. Executive Summary
Provide a summary of the proposal and benefits of selecting company to perform requested services.
2. Project Understanding of Scope of Work/Approach
The proposal shall demonstrate an understanding of the project objectives and the approach taken to implement all of the major elements of the scope of work. The approach shall include potential strategies and considerations specific to the project.

Include any additional task(s) that may add value to the project. Identify items considered to be high-risk and any proposed measures to mitigate these risks. Identify key assumptions for clarification. The proposal shall include detailed scope of work document based on contents of this RFP.

3. Schedule

Provide a project schedule, including at a minimum, those tasks outlined the proposed scope of work. The schedule should also include milestones and proposed meetings/deliverables.

4. Cost Proposal

Provide a cost proposal (sealed separately from written proposal). The cost estimate shall include personnel names, classification, hourly rates, overhead rates, and any other cost items necessary to performance the tasks listed in the Scope of Work. Detailed cost breakdown may be requested at a later time. One signed copy of the cost proposal is required to be submitted.

5. Experience

Identify any past experience and history the firm has had performing this type of work (city, county and state levels). Provide detailed information on projects with similar work. These reference projects should be of comparable size, scope and magnitude where the above proposed approach/methodology was successfully implemented within the past 5 years. The proposal should also provide lessons learned based on experience with similar projects.

6. Company Profile

Provide a company profile describing company history, number of years the organization has been in business and capabilities. The company profile information should be detailed and complete, and include the following information:

- Name of company, mailing address, phone number, and fax number of the CONTRACTOR's principal place of business. Background of the company including a brief company history, other names the company has utilized in the past, companies that have merged or affiliated with the CONTRACTOR.
- Mailing address, phone and fax number of the office in which the CONTRACTOR's team will work.
- Mailing address, staffing and degree of participation in project by any other firm or subcontractor.

7. Qualifications

Identify the qualifications of staff assigned to perform the work. Brief resumes of key staff should be included. The proposal shall designate a Project Leader who will provide a single point of contact for the management and coordination of all aspects of the work. The Project Leader shall be responsible for coordinating and tracking all deliverables, communication with the Project Manager, and reporting of results and recommendations. Identify the task leads and backup individuals. All staff including those from subcontractors and vendors shall be clearly identified with their roles defined as well as their proposed work location during the project. Estimate the percent of onsite time expected by key staff. Staff on the CONTRACTOR's Team shall be licensed for all applicable professional discipline(s) requiring license.

8. Deliverables

Identify documents to be provided under this project. Identify products to be used in performing tasks. Provide supporting documentation or examples of past work that demonstrate potential deliverables will meet or exceed requirements described in this RFP.

9. References

Provide a list of relevant projects (minimum 2) completed within the last five (5) years, including project description, client (with contact information), location, service provided, value of service, and key personnel.

SELECTION PROCESS

An initial assessment will be made to ensure that a proposal is compliant with the RFP requirements and contains the required forms and information. An incomplete proposal will be disqualified at the option of C/CAG. The Contractor Selection Panel will then assess the technical quality of each proposal based on the technical evaluation criteria below. The Contractor Selection Panel will rank the proposals and determine the top technically ranked Contractor. If requested by the Contractor Selection Panel, C/CAG will either conduct formal interviews or request additional information. C/CAG reserves the right to not conduct interviews provided the Contractor Selection Panel has adequate information to rank the proposals. If a proposal includes an offer of services in addition to those required by and described in this RFP, these additional services will be considered and could be added to the contract at the sole discretion of C/CAG.

Following the technical evaluation, a cost evaluation will then be performed to ensure the cost information is complete, reasonable and within potential budget. Subsequent to selection of a proposal, C/CAG will finalize the scope of work and draw up a contract reflecting the terms and conditions of the proposal plus the standard liability, insurance requirements and contingencies. The selected CONTRACTOR shall be prepared to enter into a contract agreement similar to Attachment B. C/CAG reserves the right to negotiate any terms of the contract with the selected CONTRACTOR.

C/CAG reserves the right to reject all proposals, and not enter into any contract. Specifically, C/CAG reserves the right to terminate this procurement at any time if it determines this will be in the best interests of C/CAG.

EVALUATION CRITERIA

Evaluation to be based on:

Project Understanding and Approach

- Depth of CONTRACTOR's understanding of the project goals and requirements
- General approach to the achievement of the project goals

- Ability to meet or exceed requirements as detailed in this RFP
- Organization of technical information and data
- Logic, clarity of work plans (scope of work document) and proposed schedule

Qualifications, Related Experience and References

- Technical experience in performing work of a closely similar nature
- Experience working with public agencies and multiple contractors
- Demonstrated success of proposed approach/methodology in past or current similar projects
- Strength and financial stability of the firm
- Strength, stability, experience and technical competence of subcontractors and staff

C/CAG reserves the right to consider CONTRACTOR performance based on comments from submitted references. Experience and ability to perform work is a significant consideration.

Project Management

- Availability and adequacy of qualifications of Project Leader
- Plans and methods to accomplish the goals and objectives of this project
- Capacity to perform the services within the proposed schedule

Completeness of Response and Other Factors

Completeness of response in accordance with RFP instructions and any other relevant factors not considered elsewhere including optional tasks and features. The impact of these evaluation criteria will be included in the above technical criteria.

TENTATIVE SCHEDULE FOR THE REVIEW PROCESS

<u>Date</u>	<u>Description</u>
March 17, 2017	Release Request for Proposals
April 14, 2017	Request for Proposals Due
April 17-21, 2017	Selection Panel review proposals
April 24-28, 2017	Contractor interviews may be held (if necessary). Consultants selected for interview must be available during this period.
May 11, 2017	Recommendations by the Selection Panel will be presented to the C/CAG Board for approval.

BACKGROUND

The San Mateo County Smart Corridor is intended to benefit a variety of users including commuters, local traffic, and commercial vehicle and transit operators. The primary goal of the San Mateo County Smart Corridor is to maintain and update the Smart Corridors specific equipment located within the San Mateo County jurisdictions' right-of-way.

The San Mateo County Smart Corridor deploys and integrates ITS elements, including communication network, signal system upgrade, signage and close circuit cameras along state routes (El Camino Real) and major local streets enabling Caltrans and local cities to implement strategies to manage recurring and non-recurring traffic congestion to reduce delays and improve mobility. The San Mateo County Smart Corridor is located from I-380 to the Santa Clara County line and includes local arterials connecting US 101 and SR 82 (El Camino Real). The Smart Corridor will have the tools to manage recurring and non-recurring traffic congestion and improve mobility during normal operating conditions, major freeway incidents, and special events.

The objectives of the San Mateo County Smart Corridor are as follows:

- Proactively manage traffic on local streets that has diverted off the freeway due to a major incident on US-101 or other freeway;
- Proactively manage traffic on local streets during normal operating conditions;
- Minimize the delay that traffic experiences on local streets during major freeway incidents;
- Instrument local streets and provide traffic managers and operators with the tools to proactively manage diverted traffic due to an incident;
- Enhance the communications and coordination between local agency public safety, Caltrans District 4, CHP, and local agency public works to create a regional approach to managing incident traffic; and
- Enable local agencies to share information and control strategies to enhance traffic management both during an incident and under normal operating conditions.

Closed-circuit television (CCTV) cameras and trailblazer signs (TBS) throughout the corridor allow the stakeholders to monitor and manage traffic flow on local streets, enabling them to do the following:

- Monitor traffic on local streets during normal operating conditions and during freeway incidents;
- Share data and video between agencies to create a regional partnership to manage traffic;
- Coordinate operations between Caltrans District 4 and local agencies during major incidents; and,
- Locally manage traffic during normal operating conditions.

C/CAG’s network monitoring consultant will be remotely logging into the network periodically to check on the status of all the equipment previously described. Any devices that appear off line will be identified and diagnosed. The network monitoring consultant will attempt to isolate the problem as best as possible. However, should issues arise that cannot be resolved remotely, the network monitoring consultant will turn the problem over to the CONTRACTOR for timely action. After the trouble ticket is cleared by the CONTRACTOR, the network monitoring consultant will verify the device is functioning properly to C/CAG on the network.

The San Mateo County Smart Corridor System focuses on a portion of the US-101, SR-84 (Woodside Rd), SR-109 (University Ave), SR-114 (Willow Rd) and SR-82 (El Camino Real) corridors including major local streets identified as **alternate routes**. Caltrans District 4 will be responsible for managing alternate routes during major freeway incidents. Approximately 250 traffic signals in San Mateo County, including those operated by Caltrans District 4, are located along the Smart Corridor. The communications network will be a mix of fiber optic cable, wireless and twisted-pair communications with the connection from San Mateo to the Caltrans District 4 TMC in Oakland. The primary network equipment (Layer 2 and Layer 3 network switches and routers) is primarily based on Hirschman and various CISCO routers.

Project Agencies

City of San Carlos	City of Millbrae
City of East Palo Alto	City of Burlingame
Caltrans District 4 **	City of San Bruno
City of San Mateo	City of Redwood City
City of Belmont	City of Menlo Park
City of Atherton	C/CAG
County of San Mateo	

** Overall System Administrator, Technical Lead

Relevant Documents for RFP

The following technical documents are available upon request:

- Concept of Operations (Updated Version)
- System Engineering Management Plan (Updated Version)
- System Diagrams
- Smart Corridor Routes and Device Map
- Trailblazer Sign (TBS) Details

SCOPE OF WORK

Task 1: Required Field Maintenance and Management Services

The selected CONTRACTOR shall provide all the necessary management, trouble shooting, cleaning, repair, record keeping and inventory logs for the components of the San Mateo Smart Corridor System, maintained by C/CAG, to keep the system operational and adequately maintained throughout its expected lifetime.

Maintenance Services are required and are described below:

1.1 Routine Management Tasks

The CONTRACTOR shall provide routine management of the Smart Corridor System field components to keep the system operational and adequately maintained.

As a minimum, the routine tasks shall be comprised of the following activities. The CONTRACTOR shall provide a description of their proposed services in the Proposal:

1.1.1 Annual Cleaning, Calibration, Inspection and Troubleshooting Services

The CONTRACTOR shall conduct an annual inspection of the equipment to ascertain all equipment is functional. Any unit that is malfunctioning or non-operational shall be replaced with C/CAG approved equipment by the CONTRACTOR and Troubleshoot the reason for the unit non-operation. The first annual inspection services shall be completed at a date to be determined. In addition, the CONTRACTOR shall clean, calibrate and trouble-shoot the Smart Corridor System field equipment as described below:

- a. Closed Circuit Television Cameras (CCTV) Equipment – Contractor will perform, inspect and/or evaluate items including, but not limited to: clean all lenses, vacuum cabinet, camera lowering device, camera pole, mounting brackets, associated cabinet, communications and network equipment, power equipment, grounding and surge protection devices, cables, UPS and batteries, and other ancillary equipment.
- b. Vehicle Detector Station (VDS) Equipment - Contractor will perform, inspect and/or evaluate items including, but not limited to: re-calibrate all VDS units to be within the accuracy tolerance per the manufacturer's recommendation for volume and speed, battery unit, detector unit, detector pole, mounting brackets, associated junction box/cabinet, communications and network equipment, power equipment, grounding and surge protection devices, cables, UPS and batteries, conflict monitors, battery backup system locations, battery rotation and other ancillary equipment.

- c. Trailblazer Signs (TBS) – Contractor will perform, inspect and/or evaluate items including, but not limited to: controller, mounting brackets, associated cabinet, communications and network equipment, power equipment, grounding and surge protection devices, cables, UPS and batteries, and other ancillary equipment.

1.1.2 Semi-Annual Inspection Services

The CONTRACTOR shall conduct a field review of all equipment six months after the annual cleaning to ascertain all equipment is functional. Any unit that is malfunctioning or non-operational shall be replaced with C/CAG approved equipment by the CONTRACTOR and troubleshoot the reason for the unit non-operation. The inside of CCTV cabinets shall be inspected and vacuumed, and cabinet filters must be replaced as necessary. The CONTRACTOR shall check and adjust/tighten the mounting of each signal head as required. Other management tasks shall be conducted to ensure all equipment is in good working condition.

If any of the equipment is non-functional and needs to be repaired or replaced during either the semi-annual inspection services or annual cleaning, the CONTRACTOR shall repair the equipment, shall troubleshoot the cause of non-function and report findings to C/CAG. The labor cost for the repair and troubleshooting work shall be included in the price for the semi-annual and annual inspection services, except for the materials costs that will be paid separately.

The CONTRACTOR shall perform, but not limited to, the following tasks as part of the CONTRACTOR's semi-annual inspection service:

- a. Walk the intersection and visually inspect all signal heads for proper operation, alignment, broken lenses, burned out lamps, and missing parts. Depress all pedestrian push buttons and observe the proper timing and display. Correct all observed problems as soon as possible thereafter.
- b. Examine the functioning of the controller in relation to the traffic. Correct functional problems as soon as possible and report functional and timing problems to the City.
- c. Observe and check for proper operation of the video detection systems, detector loops and amplifiers. Clean all video camera lenses. Adjust or re-tune detector amplifiers and correct substandard splices as necessary. Report improper detection operation and causes to the City.
- d. Inspect all relays, switches, and terminals, etc. and replace or make adjustments as necessary. Make arrangements to promptly fix those deficiencies which cannot be corrected immediately.
- e. Check and adjust fan operation. Check the filter for tight fit and tape if required. Clean and vacuum the cabinet as necessary. Examine cabinet interior for water, excessive dampness and plant or animal intrusion. Determine cause and correct the condition.

- f. Inspect battery backup system (if the signal is equipped with such unit) to ensure unit is fully charged. Report improper operation to the respective partner agency.
- g. Complete record keeping requirements as described in the proposal.

1.1.3 Coordination with C/CAG

The CONTRACTOR shall meet on a monthly basis with C/CAG staff to review project status and provide an Excel spreadsheet of both the work accomplished, per intersection, in the previous month, and projected work-plan for the month ahead. The CONTRACTOR is required to have sufficient resources, in both personnel and equipment, to complete the annual cleaning, calibration and inspection services within a yet to be determined amount of calendar days. C/CAG will impose a monetary penalty to be determined per day on the CONTRACTOR if cleaning and calibration is not completed and will have the option to terminate contract for due cause, at sole discretion of C/CAG. Emergency Maintenance activities do not exempt the calendar day timeline for annual cleaning, calibration and inspection services.

1.2 Management Plan

The CONTRACTOR shall submit a detailed Management Plan to C/CAG each month. The plan shall include CONTRACTOR staffing and administration hours, dispatch procedures, communication requirements, preventive maintenance techniques, schedules, support from outside services, equipment list, Trouble-shooting recommendations and other details as may be appropriate for inclusion in the Management Plan.

The Management Plan shall address, at a minimum, the following:

- Standards and General Procedures;
- Equipment/Software Maintenance;
- Tools;
- Spare Parts and Inventory Control;
- Emergency/Corrective Repair Procedures;
- Preventive Maintenance Procedures and Schedules;
- Support Services;
- Personnel;
- Staff Location;
- Staff Qualifications;
- Training;
- Facilities/Workshop(s);
- Service Records;
- Failure Tracking and Corrective Action;
- Lane Closure Procedures (using MOT Plans as the basis for procedures);
- Reliability and Maintainability Analysis and Calculation;
- Spare Parts Inventory Levels;
- QA/QC procedures; and
- Monthly Management Activity Reports.

1.3 Manager and Staff

The Management Plan shall describe the CONTRACTOR'S organization and personnel that will be used for managing the San Mateo Smart Corridor System. The additional requirements for personnel qualifications to be satisfied by the CONTRACTOR while managing the System is described in this section.

The numbers and classification of personnel to be used by the CONTRACTOR for managing the System, as well as the distribution of personnel, shall be documented within the Management Plan.

The CONTRACTOR'S Manager shall be responsible for the overall activities for the Project. The individual designated as the Manager must have sufficient experience and capabilities in the activities that are similar in scope to what is expected for the Project, including, without limitation, specific experience in ITS Field element deployment, electrical engineering, communications and managing field technician personnel. The individual designated as the Manager by the CONTRACTOR shall require the approval of C/CAG.

The Manager shall be responsible to analyze field conditions and troubleshoot problems, recommend repairs and direct field crews and may be required to coordinate with other C/CAG consultants, local agency staff, local agency consultants, or Caltrans staff involved with other Smart Corridor System elements. The Manager will provide QA/QC of the field crew's work.

The CONTRACTOR shall provide an Operations Coordinator to coordinate the project operations with C/CAG. The CONTRACTOR shall provide a System Integrator to ensure field device system integration. The Manager may serve multiple roles to coordinate the project operations with C/CAG.

The CONTRACTOR shall not replace the Manager without the prior written approval by C/CAG. The CONTRACTOR'S request to replace the Manager shall name a proposed replacement Manager, include higher qualifications and include a statement that he/she will be available within thirty (30) days. An unacceptable replacement of the Manager is cause for termination of the contract.

The CONTRACTOR service technicians (of any discipline) shall have an appropriate technical education background and at least three years of experience servicing ITS electronic equipment.

Any maintenance subcontractors proposed to be used by the CONTRACTOR shall be fully described within the Management Plan submitted for C/CAG approval, and the Subcontracts themselves shall be made available for review by C/CAG upon request.

All CONTRACTOR personnel shall be subject to appropriate security checks conducted to the satisfaction of C/CAG. The CONTRACTOR shall obtain written approval from C/CAG for all field service personnel.

1.4 Agency Coordination Requirements

Notwithstanding anything to the contrary herein, all work under this contract is to be provided directly to the local agencies. C/CAG is the contract manager and performance monitor. Therefore, the CONTRACTOR shall coordinate with appropriate local agency Maintenance Departments prior to performing any work, including emergency repairs. Agencies may require that their maintenance personnel be present at the time of actual work is performed or when a cabinet is accessed. The CONTRACTOR shall coordinate all work with the local agencies staff as appropriate, and at no time shall enter any cabinet without prior approval of the owner agency. If owner agencies require encroachment permits, the CONTRACTOR will be responsible to obtain such permits.

1.5 Applicable Standards

The CONTRACTOR shall utilize the latest edition of the State of California Standard Specifications and Standard Plans for all work regarding repair and or replacement of the equipment. In addition, the CONTRACTOR shall follow the local agency standard requirements, if different than the State Standard Plans and Standard Specifications. The CONTRACTOR shall check with all Cities to obtain all applicable specifications or plans.

The CONTRACTOR shall utilize the Manual of Uniform Traffic Control Devices and the WATCH manual for all traffic control.

The CONTRACTOR'S attention is directed to Sections 7-1.08, "Public Convenience," 7-1.09, "Public Safety," and 12, "Construction Area Traffic Control Devices," of the Standard Specifications and Section 10-1.05C "Traffic Control System for Lane Closure" and shall meet all requirements in performing the work.

Task 2: Service Response Time Requirements

The CONTRACTOR shall be available to provide all preventive, corrective and emergency services for the C/CAG Smart Corridor field equipment when reported by C/CAG or partner agencies. Repair and troubleshooting services shall include responding to knock-downs, reported failures and malfunctions, or other abnormal conditions. C/CAG shall make the final determination as to level of urgency of a system fault, as further detailed below. The CONTRACTOR shall provide response and service on a twenty-four (24) hour, seven (7) day per week basis. Immediate action shall be taken to safeguard the public any time any equipment becomes partly or totally inoperative from any cause whatsoever.

The CONTRACTOR shall provide required services within the following response and resolution times with respect to system faults after being advised by C/CAG or partner agency of any problem as shown in Table 1 and 2. The C/CAG Smart Corridor elements to be maintained can be found in Attachment A. Table 1 and 2 are examples only; the CONTRACTOR is responsible for creating their own criteria for response times, urgency descriptions, and system fault descriptions.

Table 1 – Example of Urgency Descriptions with Response and Resolution Time Requirements

URGENCY	FAULT DESCRIPTION	RESPONSE TIME ¹	RESOLUTION TIME ²
1	Causes system crash or data loss. Results in (or has potential to result in) unsafe traffic conditions	30 minutes	4 hours
2	The Smart Corridor system business requirements cannot be met. Core functionality unstable, no known workaround exists	2 hours	1 working day
3	Core functionality affected; a known workaround exists	2 days	10 working days
4	Cosmetic, does not impact business operations	5 days	30 working days

¹ Elapsed time between when a CONTRACTOR is notified of a fault and maintenance personnel begin to resolve the fault

² Defined as the elapsed time between when maintenance staff begins to work on the fault and when a fault is resolved (system functionality is restored)

Table 2 – Examples of System Fault Descriptions and Urgency

LOCATION	SUBSYSTEM	FAULT DESCRIPTION	URGENCY
Field	TBS	Loss of connectivity to a sign	3
Field	TBS	Loss of connectivity to less than 25% of signs	3
Field	TBS	Loss of connectivity to all signs	2
Field	TBS	Sign displays correct information, but with errors and able to self-correct	4
Field	TBS	Sign displays correct information, but with errors and not able to correct	2
Field	TBS	Sign displays incorrect or unreadable information	1
Field	CCTV	Loss of connectivity to a CCTV camera	4
Field	CCTV	Loss of connectivity to multiple CCTV cameras	3
Field	CCTV	Loss of connectivity to all CCTV cameras	2
Field	CCTV	Unable to Pan/Tilt/Zoom or focus a CCTV camera	4
Field	CCTV	Unable to Pan/Tilt/Zoom or focus multiple CCTV cameras	3
Field	CCTV	Unable to override user control of CCTV camera	3
Field	CCTV	Caltrans TMC operator unable to log into CCTV system	2
Field	CCTV	Local agency user unable to log into CCTV system	3
Field	Vehicle Detection Station	Loss of connectivity to a single detector station	3
Field	Vehicle Detection Station	Loss of connectivity to multiple vehicle detector stations	3
Field	Vehicle Detection Station	Loss of connectivity to all vehicle detector stations	2
Field	Vehicle Detection Station	Single vehicle detection station non-operational	3
Field	Vehicle Detection Station	Multiple vehicle detection stations non-operational	3
Field	Vehicle Detection Station	All vehicle detection stations non-operational	2
Field	Traffic Control System	Loss of connectivity to a signal	3
Field	Traffic Control System	Loss of connectivity to multiple signals	3
Field	Traffic Control System	Loss of connectivity to all signals from a jurisdiction	2
Field	All	Eliminate hazardous conditions, including situations due to traffic accident(s) or equipment failures	1

Upon completion of repair work, the CONTRACTOR shall perform diagnostic testing to ensure the device is fully operational and functional. The CONTRACTOR shall provide written notification to C/CAG and obtain approval for any repairs required to bring the unit to a functional level, if total cost of repair is over an amount to be determined. In the event the CONTRACTOR fails to initiate and/or complete resolution of identified service issue within the

time limits detailed in Table 1, C/CAG will impose a monetary penalty per occurrence on the CONTRACTOR and will have the option to terminate contract for due cause, at sole discretion of C/CAG.

Task 3: Documentation and Record Keeping

The CONTRACTOR shall provide documentation and keep record of all management activities.

3.1 Documentation and Billing

3.1.1 Financial Reporting

The CONTRACTOR shall provide monthly invoices for all emergency management services provided to C/CAG, with itemized cost for each service request per intersection as noted in the cost proposal table. The CONTRACTOR shall also provide invoices for the Semi-Annual Inspection Services and the Annual Cleaning, Calibration and Inspection Services per intersection as noted in the cost proposal table on a monthly basis, including monthly status updates, and to be provided in an Excel spreadsheet. In addition, for all material purchases, the CONTRACTOR shall provide the original equipment material invoice and show the mark-up cost. The total markup on equipment shall be specified in the proposal. Equipment will be invoiced separately from labor. All other materials costs shall be included as itemized costs in the semi-annual or annual invoices which are to be provided in hard copy format, electronic PDF of hard copies and provide in an Excel spreadsheet.

3.1.2 Performance Reporting

The CONTRACTOR shall document in a log the date/time/location (per intersection) of issue notification, who identified it, when CONTRACTOR first arrived at locations, initial assessment of problem, date/time of first repair, and verification by a 2nd technician or by the CONTRACTOR'S manager.

The CONTRACTOR shall create a monthly log of all activities by intersection location and/or device type. The monthly log format will be approved by C/CAG and reviewed on a monthly basis. The purpose of this monthly log is to allow an easy reference for annual repair costs and history of devices by location and type of device. The monthly log is to be provided in an Excel spreadsheet.

3.2 Inventory

The CONTRACTOR shall create a Microsoft Access or Excel database, including location (GIS based) information of all equipment to keep track of all of Smart Corridor System field equipment assets, including records for all service calls, semi-annual and annual activities, repair dates, replacement dates, warranty expiration dates, etc. The CONTRACTOR shall obtain C/CAG review and approval of the proposed format prior to use on the project. The CONTRACTOR shall provide a summary assessment two times a year for the number of repairs; per device type and all related elements to the device, to provide C/CAG with the level of repair

and/or replacement for each equipment component and a recommendation on how to reduce maintenance costs or extended element life.

Task 4: Equipment Replacement

CONTRACTOR shall provide only new equipment for replacement of system components, unless otherwise approved in writing by C/CAG. The CONTRACTOR will propose a plan to maintain a minimum quantity of spare equipment equal to an amount to be determined of the deployed field devices to be maintained through this contract, and implement the plan upon approval of such plan by C/CAG. The CONTRACTOR may remove defective equipment and send to the manufacturer for repair/rebuild, if approved by C/CAG. If equipment is removed for replacement, or off-site repair, the CONTRACTOR shall install a temporary unit to ensure continued, uninterrupted system operation. Any additional equipment shall be provided by the CONTRACTOR and shall be kept in storage at no cost to C/CAG.

The type of equipment and/or number of units included on the Equipment List may be changed in the future, with prior C/CAG approval, based on CONTRACTOR'S recommendation or repair history. The CONTRACTOR shall purchase and furnish all other materials required to restore the system to full functionality and to make all necessary repairs, including cabling, conductors, and other items.

The CONTRACTOR shall provide all equipment required to perform the activities required by the contract, including but not limited to: portable computers, cabling, monitors, proprietary vendor software required for calibrations/adjustments, bucket trucks, etc. The cost for any required materials, equipment, hardware and software is included in the contract prices paid for the various items of work, and therefore, no additional compensation will be allowed.

Task 5: Obtain Performance Bond, Licenses and Permits

5.1 Performance Bond

The CONTRACTOR, concurrently with the execution and delivery of this Contract, shall provide additional security for the performance of its obligation to perform the services required hereunder, through a Performance Bond issued by a surety acceptable to C/CAG. The Performance Bond shall be in the amount of 100% of the annual maintenance contract. The Performance Bond shall serve as additional security for the performance of the CONTRACTOR's obligations, and in no event should the existence of the Performance Bond or the stated amount thereof be construed to cap, liquidate or otherwise modify or limit the CONTRACTOR's responsibilities for performance under this contract. The CONTRACTOR shall include a letter from an underwriter stating that they foresee no issues in providing the Performance Bond at the time of contract execution.

5.2 Contractor's License

The CONTRACTOR shall be either a licensed Electrical Contractor, Class C-8 or General Contractor, Class A, at the proposal submittal date and upon the award of the Contract.

The CONTRACTOR must possess a valid, current and in good standing Class A or Class C-10 contractor's license issued by the California State Contractor Licensing Board at the proposal submittal date and upon the award of the Contract. A copy of the contractor's license number and date of expiration must be included in the submitted Proposal.

5.3 Business License

The CONTRACTOR shall obtain Business Licenses from the following agencies prior to the start of work:

City of San Carlos	City of Millbrae
City of East Palo Alto	City of Burlingame
City of San Mateo	City of San Bruno
City of Belmont	City of Redwood City
City of Atherton	City of Menlo Park
County of San Mateo	

The CONTRACTOR shall pay all fees associated with obtaining and keeping current the Business Licenses.

5.4 Encroachment Permit

As the CONTRACTOR will be working in multiple jurisdictions, the CONTRACTOR will be required to obtain an Encroachment Permit from agencies listed below for work within each agencies right of way:

City of San Carlos	City of Millbrae
City of East Palo Alto	City of Burlingame
City of San Mateo	City of San Bruno
City of Belmont	City of Redwood City
City of Atherton	City of Menlo Park
County of San Mateo	California Department of Transportation

The CONTRACTOR shall comply with all permit requirements as stipulated by the issuing agency. All other costs incurred by the CONTRACTOR to obtain the permits and coordinate full compliance with all conditions therein shall be borne solely by the CONTRACTOR, and no additional compensation will be allowed therefor.

Attachment A: Summary of Traffic Control Elements

The equipment and devices installed as part of the Smart Corridor located within the cities limits to be maintained will include, but shall not be limited to the following:

Table 1: Smart Corridors Equipment

Element Type	Quantity	Unit
Traffic Signals ¹	85	EA
Fixed/PTZ CCTV Cameras (CCTV)	113	EA
Trailblazer Signs (TBS)	46	EA
Vehicle Detection System (VDS)	20	EA

¹Includes signals, poles, controllers, controller modules, conduits, software, power, signal cabinets, and related equipment

Detailed locations are as follows:

Atherton

SR82/Ravenswood - (this is a Menlo Park Agg Switch)

Int Name		City/Agency	Controller	Switch	Device	Communication
Middlefield Rd	Marsh Rd	Atherton	2070 E	Hirschmann	Edge Switch 1	Fiber Optic
					Edge Switch 2	
					Edge Switch 3	
					Edge Switch 4	
					TBS 1	
					TBS 2	
					TBS 3	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					Traffic Data	
Middlefield Rd	Encinal Ave	Atherton	2070 E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
					Vehicle Detection	
Middlefield Rd	Oak Grove Ave	Atherton	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
					Overall Network	Number of Devices
					Edge Switch	6
					TBS	3
					CCTV	3
					Traffic Data	3
					Vehicle Detection	1

Belmont

SR82/Ralston						
Int Name		City/Agency	Controller	Switch	Device	Communication
Ralston Ave	6th Ave	Belmont	2070 E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
Ralston Ave	Old County Rd	Belmont	2070 E	Hirschmann	Edge Switch	Fiber Optic
					TBS	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					CCTV 4	
					Traffic Data	
Vehicle Detection						
Ralston Ave	Hiller St	Belmont	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
Overall Network						Number of Devices
Edge Switch						3
TBS						1
CCTV						4
Traffic Data						3
Vehicle Detection						1

Burlingame

SR82/Millbrae

Int Name		City/Agency	Controller	Switch	Device	Communication
Burlingame Corporate Yard		Burlingame	2070 E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
Anza Repeater Site		Burlingame	2070 E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
Airport Blvd	Anza Blvd	Burlingame	2070E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
					TBS 1	
					TBS 2	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					CCTV 4	
					Traffic Data	
					Vehicle Detection	
Broadway	California Rd	Burlingame	2070E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					CCTV 4	
Traffic Data						
Rollins Rd	Ingold Rd	Burlingame	2070E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
					Traffic Data	
					Vehicle Detection	
Old Bayshore Hwy	Mitten Rd	Burlingame	2070E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
					Traffic Data	
					Vehicle Detection	
California Dr	Oak Grove Ave	Burlingame	2070E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
					Traffic Data	
					Vehicle Detection	
Broadway	Rollins Rd	Burlingame	2070E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
					Traffic Data	
					Overall Network	Number of Devices
					Edge Switch	8
					TBS	2
					CCTV	8
					Traffic Data	6
					Vehicle Detection	4

Millbrae

SR82/Millbrae

Int Name	City/Agency	Controller	Switch	Device	Communication	
E Millbrae Ave	Rollins Rd	Millbrae	2070 E	Hirschmann	Edge Switch	Fiber Optic
					TBS 1	
					TBS 2	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					CCTV 4	
					Traffic Data	
Rollins Rd	Adrian Rd	Millbrae	2070 E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
					TBS	
					Traffic Data	
E Millbrae Ave	Bayshore Hwy	Millbrae	2070E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
					TBS	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					Traffic Data	
Overall Network					Number of Devices	
Edge Switch					3	
TBS					4	
CCTV					7	
Traffic Data					3	
Vehicle Detection					1	

Menlo Park

SR82/Ravenswood						
Int Name	City/Agency	Controller	Switch	Device	Communication	
Marsh Rd	Bay Rd	Menlo Park	2070 E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
					Vehicle Detection	
Marsh Rd	Rollison Rd / Scott Rd	Menlo Park	2070 E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
Marsh Rd	Bohannon Dr / Florence St	Menlo Park	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
US101NB/SR114 (Donohoe) - 172.22.32.3 /24 - Agg switch is in East Palo Alto						
Middlefield Rd	Ravenswood Ave	Menlo Park	2070E	Hirschmann	Edge Switch 1	Fiber Optic
					Edge Switch 2	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					Traffic Data	
Middlefield Rd	Willow Rd	Menlo Park	2070E	Hirschmann	Edge Switch 1	Fiber Optic
					Edge Switch 2	
					Edge Switch 3	
					Edge Switch 4	
					TBS 1	
					TBS 2	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					CCTV 4	
					Traffic Data	
Ravenswood Ave	Laurel St	Menlo Park	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
Willow Rd	Gilbert Ave	Menlo Park	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
Willow Rd	Coleman Ave	Menlo Park	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
Willow Rd	Durham St	Menlo Park	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
					Vehicle Detection	
Willow Rd	Bay Rd	Menlo Park	2070E	Hirschmann	Edge Switch 1	Fiber Optic
					Edge Switch 2	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					CCTV 4	
					Traffic Data	
Overall Network					Number of Devices	
Edge Switch					15	
TBS					2	
CCTV					11	
Traffic Data					10	
Vehicle Detection					2	

Redwood City

SR82/Brittan - Aggregation switch from City of San Carlos

Int Name		City/Agency	Controller	Switch	Device	Communication	
Whipple Ave	Industrial Rd	Redwood City	2070 E	Hirschmann	Edge Switch 1	Fiber Optic	
					Edge Switch 2		
					Edge Switch 3		
					Edge Switch 4		
					TBS 1		
					TBS 2		
					TBS 3		
					CCTV 1		
					CCTV 2		
					CCTV 3		
CCTV 4							
Whipple Ave	Veterans Blvd	Redwood City	2070 E	Hirschmann	Edge Switch 1	Fiber Optic	
					Edge Switch 2		
					Edge Switch 3		
					Edge Switch 4		
					TBS 1		
					TBS 2		
					TBS 3		
					CCTV 1		
					CCTV 2		
					CCTV 3		
CCTV 4							
SR82/SR84							
Middlefield Rd	Willow St	Redwood City	2070E	Hirschmann	Edge Switch 1	Fiber Optic	
					Edge Switch 2		
					TBS		
					Traffic Data		
Middlefield Rd	Charter St	Redwood City	2070E	Hirschmann	Edge Switch	Fiber Optic	
					Traffic Data		
Middlefield Rd	Douglas Ave	Redwood City	2070E	Hirschmann	Edge Switch	Fiber Optic	
					Traffic Data		
Seaport Blvd	Bayshore Rd/Blomquist St	Redwood City	2070E	Hirschmann	Edge Switch 1	Fiber Optic	
					Edge Switch 2		
					Edge Switch 3		
					Edge Switch 4		
					Edge Switch 5		
					TBS 1		
					TBS 2		
					CCTV 1		
					CCTV 2		
					CCTV 3		
CCTV 4							
Bayshore Rd	Hacen Ave (Unsig)	Redwood City	2070E	Hirschmann	Edge Switch	Fiber Optic	
					CCTV		
					Traffic Data		
Marine Pkwy	Oracle Pkwy	Redwood City	2070E	Hirschmann	Edge Switch	Fiber Optic	
					Overall Network		Number of Devices
					Edge Switch		19
					TBS		9
					CCTV		13
					Traffic Data		5
Vehicle Detection	0						

San Bruno

SR82/San Bruno

Int Name		City/Agency	Controller	Switch	Device	Communication
San Bruno Ave	Green Ave	San Bruno	2070 E	Hirschmann	Edge Switch	Fiber Optic
					TBS	
					Traffic Data	
San Bruno Ave	San Mateo Rd	San Bruno	2070 E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
San Bruno Ave	3rd Ave	San Bruno	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
					Vehicle Detection	
Overall Network					Number of Devices	
Edge Switch					3	
TBS					1	
CCTV					0	
Traffic Data					3	
Vehicle Detection					1	

San Carlos

SR82/Brittan						
Int Name	City/Agency	Controller	Switch	Device	Communication	
Holly St	Old County Rd	San Carlos	2070 E	Hirschmann	Edge Switch 1	Fiber Optic
					Edge Switch 2	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					Traffic Data	
					Edge Switch 1	
					Edge Switch 2	
					Edge Switch 3	
					TBS 1	
					TBS 2	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					CCTV 4	
					Traffic Data	
					Vehicle Detection	
					Industrial Rd	
Traffic Data						
Brittan Ave	Old County Rd	San Carlos	2070E	Hirschmann	Edge Switch 1	Fiber Optic
					Edge Switch 2	
					Edge Switch 3	
					TBS	
					CCTV 1	
					CCTV 2	
					CCTV 3	
Traffic Data						
Brittan Ave	Industrial Rd	San Carlos	2070E	Hirschmann	Edge Switch 1	Fiber Optic
					Edge Switch 2	
					Edge Switch 3	
					Edge Switch 4	
					TBS 1	
					TBS 2	
					TBS 3	
					TBS 4	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					CCTV 4	
					Traffic Data	
Vehicle Detection						
Industrial Rd	Howard Ave	San Carlos	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
					Vehicle Detection	
Industrial Rd	G St	San Carlos	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
SR82/Harbor						
Industrial Rd	Quarry Rd	San Carlos	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
Harbor Blvd	Old County Rd	San Carlos	2070E	Hirschmann	Edge Switch 1	Fiber Optic
					Edge Switch 2	
					TBS	
					CCTV 1	

San Carlos

San Carlos							
					CCTV 2		
					CCTV 3		
					CCTV 4		
					Traffic Data		
Harbor Blvd	Industrial Rd	San Carlos	2070E	Hirschmann	Edge Switch 1	Fiber Optic	
					Edge Switch 2		
					Edge Switch 3		
					TBS 1		
					TBS 2		
					CCTV 1		
					CCTV 2		
					CCTV 3		
					Traffic Data		
					Vehicle Detection		
					Overall Network		Number of Devices
					Edge Switch		20
					TBS		10
					CCTV	21	
					Traffic Data	10	
					Vehicle Detection	4	

San Mateo

City of San Mateo Demo HUB

Int Name	City/Agency	Controller	Switch	Device	Communication	
East Hillisdale Blvd	Saratoga Dr	San Mateo	2070 E	Hirschmann	Edge Switch	Fiber Optic
					CCTV	
					Traffic Data	
East Hillisdale Blvd	Saratoga Dr (West)	San Mateo	2070 E	Hirschmann	Edge Switch	Fiber Optic
					TBS	
East Hillisdale Blvd	Curtiss St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
					Vehicle Detection	
East Hillisdale Blvd	Pacific Blvd	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					TBS	
El Camino Real	Hillisdale Blvd	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					CCTV	
					Traffic Data	
East Hillisdale Blvd	Saratoga Dr (East)	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					TBS	
East Hillisdale Blvd	Norfolk St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
Saratoga Dr	Franklin Parkway	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					TBS	
					CCTV	
					Traffic Data	
Saratoga Dr	Franklin Parkway (West)	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					TBS	
Saratoga Dr	Park Place	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
					Vehicle Detection	
Saratoga Dr	Yates Way	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
Saratoga Dr	Expo Center	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					CCTV	
					Traffic Data	
Saratoga Dr	Delaware St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					TBS 1	
					TBS 2	
					CCTV	
					Traffic Data	
Delaware St	Bermuda Dr	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
Delaware St	Concar	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					TBS	
					CCTV	
					Traffic Data	
Delaware St	Charles Lane	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
Saratoga Dr	BTWN Franklin and Hillisdale	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					TBS 1	
					TBS 2	
SR82/4th Ave						
E 3rd Ave	S Humboldt St	San Mateo	2070 E	Hirschmann	Edge Switch	Fiber Optic
					TBS	
					CCTV 1	
					CCTV 2	
					CCTV 3	
Traffic Data						

San Mateo

E 3rd Ave	S Fremont St	San Mateo	2070 E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
E 3rd Ave	S Delaware St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					TBS	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					CCTV 4	
Traffic Data						
E 3rd Ave	S Claremont St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
					Traffic Data	
E 3rd Ave	S B St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
					Traffic Data	
E 3rd Ave	S Ellsworth Ave	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
E 3rd Ave	S San Mateo Dr	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
E 4th St	S Humboldt St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					CCTV 1	
					CCTV 2	
					CCTV 3	
E 4th St	S Fremont St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
					Vehicle Detection	
E 4th St	S Delaware St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					TBS	
					CCTV 1	
					CCTV 2	
					CCTV 3	
Traffic Data						
E 4th St	S Claremont St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
E 4th St	S B St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
E 4th St	S Ellsworth Ave	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
E 4th St	S San Mateo Dr	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
S Delaware St	1st Ave	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
					Vehicle Detection	
S Delaware St	2nd Ave	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
S Delaware St	5th Ave	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
S Delaware St	9th St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	

San Mateo

					Vehicle Detection	
S B St	1st Ave	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
S B St	2nd Ave	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
S B St	5th Ave	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
S Ellsworth Ave	1st Ave	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
S Ellsworth Ave	2nd Ave	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
S San Mateo Dr	2nd Ave	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
S San Mateo Dr	5th Ave	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	

SR82/Peninsula - North Segment

Peninsula Ave	California Dr/San Mateo Dr	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					Traffic Data	
Peninsula Ave	Delaware St / Dwight Rd	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					WAP	
					TBS	
					CCTV 1	
					CCTV 2	
					Traffic Data	
Peninsula Ave	Humboldt St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					CCTV 1	
					CCTV 2	
					CCTV 3	
					CCTV 4	
					Traffic Data	
Peninsula Ave	Bayshore Hwy / Airport Blvd	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	
Peninsula Ave	Coyote / Airport Blvd	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					Traffic Data	

SR82/Poplar - North Segment

E Poplar Ave	San Mateo Dr	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					TBS	
					CCTV 1	
					CCTV 2	
					CCTV 3	
					Traffic Data	

San Mateo

E Poplar Ave	N Delaware St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					CCTV 1	
					CCTV 2	
					CCTV 3	
					Traffic Data	
E Poplar Ave	N Humboldt St	San Mateo	2070E	Hirschmann	Edge Switch	Fiber Optic
					CCTV 1	
					CCTV 2	
					CCTV 3	
					CCTV 4	
					Traffic Data	
					Vehicle Detection	
					Overall Network	Number of Devices
					Edge Switch	50
					TBS	15
					CCTV	43
					Traffic Data	44
					Vehicle Detection	7

Attachment B: Sample Agreement between C/CAG and CONTRACTOR

SAMPLE AGREEMENT

BETWEEN

CITY/COUNTY ASSOCIATION OF GOVERNMENTS AND _____

This Agreement entered this ____ day of _____, 20____, by and between the City/County Association of Governments of San Mateo County, a joint powers agency, hereinafter called "C/CAG" and _____, hereinafter called "Contractor."

W I T N E S S E T H

WHEREAS, C/CAG is a joint powers agency formed for the purpose of preparation, adoption and monitoring of a variety of county-wide state-mandated plans; and,

WHEREAS, C/CAG is prepared to award funding for ...; and

WHEREAS, C/CAG has determined that Contractor has the requisite qualifications to perform this work.

NOW, THEREFORE, IT IS HEREBY AGREED by the parties as follows:

1. Services to be provided by Contractor. In consideration of the payments hereinafter set forth, Contractor agrees to perform the services described in Exhibit A, attached hereto (the "Services"). All Services are to be performed and completed by _____, 20____.
2. Payments. In consideration of Contractor providing the Services, C/CAG shall reimburse Consultant based on the cost rates set forth in Exhibit A up to a maximum amount of _____ thousand dollars (\$xx,xxx) for Services provided during the Contract Term as set forth below. Payments shall be made to Contractor monthly based on an invoice submitted by Contractor that identifies expenditures and describes services performed in accordance with the agreement. C/CAG shall have the right to receive, upon request, documentation substantiating charges billed to C/CAG.
3. Relationship of the Parties. It is understood that Contractor is an Independent Contractor and this Agreement is not intended to, and shall not be construed to, create the relationship of agent, servant, employee, partnership, joint venture or association, or any other relationship whatsoever other than that of Independent Contractor.

4. Non-Assignability. Contractor shall not assign this Agreement or any portion thereof to a third party.
5. Contract Term. This Agreement shall be in effect as of _____ and shall terminate on _____, 20___; provided, however, C/CAG may terminate this Agreement at any time for any reason by providing 30 days' notice to Contractor. Termination to be effective on the date specified in the notice. In the event of termination under this paragraph, Contractor shall be paid for all Services provided to the date of termination.
6. Hold Harmless/ Indemnity: Contractor shall indemnify and save harmless C/CAG, its agents, officers and employees from all claims, suits or actions to the extent caused by the negligence, errors, acts or omissions of the Consultant, its agents, officers or employees related to or resulting from performance, or non-performance under this Agreement.

The duty to indemnify and save harmless as set forth herein, shall include the duty to defend as set forth in Section 2778 of the California Civil Code.

7. Insurance: Contractor or any subcontractors performing the services on behalf of Contractor shall not commence work under this Agreement until all Insurance required under this section has been obtained and such insurance has been approved by the C/CAG Staff. Contractor shall furnish the C/CAG Staff with Certificates of Insurance evidencing the required coverage and there shall be a specific contractual liability endorsement extending the Contractor's coverage to include the contractual liability assumed by the Contractor pursuant to this Agreement. These Certificates shall specify or be endorsed to provide that thirty (30) days notice must be given, in writing, to C/CAG of any pending change in the limits of liability or of non-renewal, cancellation, or modification of the policy. Such Insurance shall include at a minimum the following:

Workers' Compensation and Employer Liability Insurance: Contractor shall have in effect, during the entire life of this Agreement, Workers' Compensation and Employer Liability Insurance providing full statutory coverage.

Liability Insurance: Contractor shall take out and maintain during the life of this Agreement such Bodily Injury Liability and Property Damage Liability Insurance as shall protect C/CAG, its employees, officers and agents while performing work covered by this Agreement from any and all claims for damages for bodily injury, including accidental death, as well as any and all operations under this Agreement, whether such operations be by the Contractor or by any sub-contractor or by anyone directly or indirectly employed by either of them. Such insurance shall be combined single limit bodily injury and property damage for each occurrence and shall be not less than \$1,000,000 unless another amount is specified below and shows approval by C/CAG Staff.

Required insurance shall include:

	Required Amount	Approval by C/CAG Staff if under \$ 1,000,000
a. Comprehensive General Liability	\$ 1,000,000	_____
b. Workers' Compensation	\$ Statutory	_____

C/CAG and its officers, agents, employees and servants shall be named as additional insured on any such policies of insurance, which shall also contain a provision that the insurance afforded thereby to C/CAG, its officers, agents, employees and servants shall be primary insurance to the full limits of liability of the policy, and that if C/CAG, or its officers and employees have other insurance against a loss covered by such a policy, such other insurance shall be excess insurance only.

In the event of the breach of any provision of this section, or in the event any notice is received which indicates any required insurance coverage will be diminished or canceled, the C/CAG Chairperson, at his/her option, may, notwithstanding any other provision of this Agreement to the contrary, immediately declare a material breach of this Agreement and suspend all further work pursuant to this Agreement.

8. Non-discrimination. The Contractor and any subcontractors performing the services on behalf of the Contractor shall not discriminate or permit discrimination against any person or group of persons on the basis of race, color, religion, national origin or ancestry, age, sex, sexual orientation, marital status, pregnancy, childbirth or related conditions, medical condition, mental or physical disability or veteran's status, or in any manner prohibited by federal, state or local laws.
9. Compliance with All Laws. Contractor shall at all times comply with all applicable laws and regulations, including without limitation those regarding services to disabled persons, including any requirements of Section 504 of the Rehabilitation Act of 1973.
10. Substitutions: If particular people are identified in this Agreement are providing services under this Agreement, the Contractor will not assign others to work in their place without written permission from C/CAG. Any substitution shall be with a person of commensurate experience and knowledge.

11. Sole Property of C/CAG. Work products of Contractor which are delivered under this Agreement or which are developed, produced and paid for under this Agreement, shall be and become the property of C/CAG. Contractor shall not be liable for C/CAG's use, modification or re-use of products without Contractor's participation or for purpose other than those specifically intended pursuant to this Agreement.
12. Access to Records. C/CAG, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the Contractor which are directly pertinent to this Agreement for the purpose of making audit, examination, excerpts, and transcriptions.
The Contractor shall maintain all required records for three years after C/CAG makes final payments and all other pending matters are closed.
13. Merger Clause. This Agreement, including Exhibit A attached hereto and incorporated herein by reference, constitutes the sole agreement of the parties hereto with regard to the matters covered in this Agreement, and correctly states the rights, duties and obligations of each party as of the document's date. Any prior agreement, promises, negotiations or representations between the parties not expressly stated in this document are not binding. Any subsequent modifications must be in writing and signed by the parties. In the event of a conflict between the terms, conditions or specifications set forth herein and those in Exhibit A attached hereto, the terms, conditions or specifications set forth herein shall prevail.
14. Governing Law. This Agreement shall be governed by the laws of the State of California, without regard to its choice of law rules, and any suit or action initiated by either party shall be brought in the County of San Mateo, California.
15. Notices. All notices hereby required under this agreement shall be in writing and delivered in person or sent by certified mail, postage prepaid and addressed as follows:

City/County Association of Governments of San Mateo County

555 County Center, 5th Floor

Redwood City, CA 94063

Notices required to be given to contractor shall be addressed as follows:

Consultant

Address

IN WITNESS WHEREOF, the parties hereto have affixed their hands on the day and year first above written.

(Contractor)

By _____
Date

City/County Association of Governments (C/CAG)

By _____
C/CAG Chair Date

C/CAG Legal Counsel

By _____