

# **REQUEST FOR PROPOSALS**

## **Sacramento Transportation Area Network (STARNET) System Engineering Technical Assistance**

**Contract Amount  
\$500,000**

**September 16, 2005**



**SACRAMENTO AREA COUNCIL OF GOVERNMENTS  
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# SACRAMENTO AREA COUNCIL OF GOVERNMENTS

## REQUEST FOR PROPOSALS

Sacramento Transportation Area Network (STARNET)  
System Engineering Technical Assistance

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## **I. INTRODUCTION**

The Sacramento Area Council of Governments (SACOG) is a voluntary association of governments. Member jurisdictions include: the County of Sacramento (including the cities of Citrus Heights, Elk Grove, Folsom, Galt, Isleton, Rancho Cordova and Sacramento); the County of Yolo (including the cities of Davis, West Sacramento, Winters, and Woodland); the County of Sutter (including the cities of Live Oak and Yuba City); the County of Yuba (including the cities of Marysville and Wheatland); Placer County (including the cities of Auburn, Colfax, Lincoln, Rocklin, Roseville and Town of Loomis) and El Dorado County (including the City of Placerville).

SACOG is the federally designated Metropolitan Planning Organization (MPO) for the Sacramento, Davis and Marysville/Yuba City urbanized areas. SACOG is also the state designated Regional Transportation Planning Agency (RTPA) for the counties of Sacramento, Yolo, Sutter and Yuba.

## **II. BACKGROUND**

SACOG seeks a qualified professional engineering firm/team that has both Systems Engineering expertise and Intelligent Transportation Systems (ITS) knowledge and experience to serve as Systems Manager for the development of an area-wide “system of systems”. This interactive/integrated intermodal transportation management and information system will be based on real-time, computer assisted transportation management and communications. The Systems Manager will work with stakeholders to establish a concept of operations, define requirements, standardize interfaces and select the project level architecture, prepare the scope of work for System Integrator services, assist in the review of proposals, monitor system implementation and verification, and provide technical assistance to SACOG throughout the development.

The Sacramento Transportation Area Network (STARNET) system will be structured to integrate regional transportation information needed by public and private service providers and users of roadways and public/private transportation systems, including transit and ports, into a real-time environment. This integration will enhance the existing Sacramento Region 511 Travel Information System. It will provide computer assisted decision/management support to transportation management centers and traffic engineering/public safety departments operated by the participating agencies. Improvement to the safety of the transportation system for its users will continue to be a priority to these investments in the Sacramento region.

All agencies will be linked via an information/communications network. The network will connect transportation systems and modes that are presently uncoupled. The communications network will accommodate the exchange of both data and control functions between management centers, as well as the sharing of video. This will allow for cross-jurisdictional transportation management coordination within the Sacramento region. In addition to transportation management aspects, this integration of management centers will facilitate the accumulation and dissemination of corridor-wide traveler information, thereby enhancing the

existing 511 system and ultimately making intermodal travel easier.

The STARNET system design will be based on an open and modular system architecture that facilitates system and subsystem component integration with defined communication protocols and standards, data dictionary, message sets and other parameters and constraints. This will allow the ability to access latest technologies from competitive sources of supply throughout the system life cycle, to integrate the system with other systems in a joint integrated architecture venue, and to integrate and/or retrofit earlier increments with later increments in an evolutionary acquisition context. The STARNET system will be realized by building on existing efforts that are as complementary or compatible as possible so that investments are not wasted or redundant. However, an open system architecture as a primary goal of STARNET will attain interoperability of legacy and future transportation management systems.

A map of the targeted area is included in this RFP as Exhibit A.

The Sacramento region has demonstrated leadership in the area of Intelligent Transportation Systems (ITS) through several activities and programs aimed at positioning the region to better respond to travel demand and improvements in mobility and safety to travelers. Good progress has been made in planning for the deployment of ITS including:

- An ad hoc ITS committee was formed in 1996 and met informally until 1999 when it was formalized as the “Sacramento Region ITS Partnership” (known as the ITS Partnership), an advisory committee to the SACOG Board of Directors. **The ITS Partnership will guide the development of work within this RFP.**
- A regional ITS communication system that links the operations centers in the region was conceptualized in a report completed in early 1999. The Sacramento Transportation Area-wide Network (STARNET) soon became a regional priority leading to the completion of a Needs Assessment study in late 2001. **The 2001 Needs Assessment will be updated as the tasks of this RFP are executed.**
- The development of a Strategic Deployment Plan (SDP) has been completed in 2005. The SDP reflects the changes that have occurred since the 1996 Early Deployment Plan (EDP) and sets direction for future ITS planning efforts. As a result, the 1996 EDP is no longer a valid guide for ITS deployment. The regional ITS architecture for the Sacramento region is updated and the architecture requirements of 23 CFR 940 are addressed.

### **III. PROJECT SUMMARY AND DESCRIPTION**

The contract for the Sacramento Transportation Area Network (STARNET) System Engineering Technical Assistance will be an agreement between the SACOG and the consultant. SACOG will provide contract administration services. SACOG will fund \$500,000 for the consultant services to complete tasks 1 thru 4 (system definition) as described in the Scope of Work. The SACOG Board of Directors will award the contract and project deliverables will be reviewed by the SACOG Project Manager. A Task Order will be issued for work involved in Tasks 1 thru 4 and the work of each task will not start until completion and approval of the critical activities of

the previous Task. The consultant will invoice SACOG for services rendered and SACOG will reimburse the consultant for these services.

The scope of services for Task 5 (monitoring and support) will be better specified during Task 4. Additional grant applications may be pending for implementation of future integration phases. SACOG will issue an RFP to retain a Systems Integrator upon securing additional grant funds. Compensation for the additional Systems Manager's services of Task 5 will be acquired through further negotiation as another Task Order of this RFP.

#### **IV. SCOPE OF WORK/SERVICES**

The scope of work is described below. The selected consultant or consulting team will be expected to perform all technical and other analyses necessary to complete the scope of work. The consultant will receive general direction from the SACOG Project Manager. Tasks will include the following:

##### ***General***

SACOG intends to retain a qualified professional engineering firm/team that has both Systems Engineering expertise and Intelligent Transportation Systems (ITS) knowledge and experience to serve as the Systems Manager for the STARNET center-to-center system. In summary, the Systems Manager will work with stakeholders to establish a concept of operations, define requirements, standardize interfaces and select the project level architecture, prepare the scope of work for System Integrator services, assist in the review of proposals, monitor system implementation and verification, and provide technical assistance to SACOG throughout the development.

The Systems Manager and all subcontractors will not be eligible to submit a proposal for the System Integrator services, nor shall offer products or be affiliated with the eventual development team or vendors.

The Vee Development Model (Exhibit B) shall be used as the Systems Engineering approach to analyze, design, procure, construct, install, integrate, test and maintain the ITS elements for the system ultimately to be developed. This engineering framework is a Systems Engineering Process derived from EIA-632-1999, IEEE 1220 (1998); and ISO 15288. Other models may be used to supplement the Vee.

The "Systems Engineering Guidebook for ITS" (SE Guidebook) shall be used as reference documentation for the Systems Engineering process, tasks, and activities to be undertaken in this contract and described in the proposal. Terminology associated with the Systems Engineering process used within this RFP and to be described in the proposal will be consistent with the SE Guidebook.

Capabilities in software and systems development and project management are being asked for in the SUBMITTAL REQUIREMENTS section below, in addition to the traditional set of qualifications criteria used for proposal evaluation (such as past performance, approach and

knowledge of project, etc.). The capability criteria can be found in the tool called Capability Maturity Model Integration (CMMI). A description of CMMI and its Best Practices areas can be found in the SE Guidebook, Section 6 Capabilities and Best Practices in System Development. In the qualifications evaluation process, points will be added for proposers that can show evidence of in-progress work toward a CMMI level of maturity (see <http://www.sei.cmu.edu/cmmi> ). This can be done by:

- providing documented processes and procedures (drafts or final) showing project principals and/or key technical staff with appropriate certifications, and/or
- undertaking an internal CMMI assessment level 2 or better, and/or
- staff demonstrating their expertise through professional certification programs like the INCOSE Certified Systems Engineering Professional (CSEP) and the Project Management Institute (PMI) Project Management Professional (PMP) certification. More information on these certifications can be found at [www.incose.org](http://www.incose.org) and [www.pmi.org](http://www.pmi.org).

All products shall be acceptable to SACOG and the Federal Highway Administration (FHWA), therefore the design will be based on the most current design standards, regulations, policies, procedures and manuals. Specifically the project implementation requirements of 23 CFR 940 part 11 will be addressed within the contract task work.

All work conducted by the Systems Manager will be under the guidance of the Sacramento Region ITS Partnership, led by SACOG. Members of the ITS Partnership may include representatives from each participating agency. They include:

Caltrans District 03  
City of Citrus Heights  
City of Elk Grove  
City of Folsom  
City of Rancho Cordova  
City of Roseville  
City of Sacramento  
City of West Sacramento  
County of Sacramento  
Regional Transit

The Systems Manager shall provide strong leadership in addressing technical and institutional issues, and facilitating consensus development within the ITS Partnership throughout the course of the project. The Systems Manager shall coordinate with the appropriate grant fund administrators, organize project meetings, provide monthly progress reports, as well as attend and make presentations in front of decision-making bodies, the general public and special interest groups regarding project related matters.

It is important that project principals and key technical staff of the Systems Manager team are easily accessible by the ITS Partnership during the course of the project. Maintaining an office in the Sacramento Metropolitan Area with project principals and /or key technical staff is highly desirable.

The Systems Manager shall be familiar with and responsible for providing and performing the following tasks and activities. The Systems Manager shall describe approach to address the following engineering tasks and include the descriptions in the Systems Engineering Management Plan. The work of each task will not start until completion and approval of the critical activities of the previous task.

***Task 1 – Systems Engineering Management Planning***

The Systems Manager will develop a Systems Engineering Management Plan (SEMP) to address the management of the systems engineering development and serve as repository for project technical plans. Guidelines for preparation of the SEMP are located in Section 7.5.2 of the SE Guidelines.

The SEMP will include the following project management documentation. Specifically what shall be included in each of these documents will be found in Section 7.5.2.

Management Plans:

- Work Breakdown Structure (WBS)
- Task Inputs – required for each task in the WBS
- Task Deliverables – required products of each task in the WBS
- Task Control Gates – critical activities to be completed before next task begins
- Reviews and Meetings – noted for each task in the WBS
- Task Resources – needed for each task in the WBS
- Master Schedule – sequencing and duration of the activities of each task in WBS

The SEMP will include the following Technical Plans. Specifically what shall be included in each of these documents will be found in Section 7.5.2. Additional Technical Plans should be recommended within the proposal.

Technical Plans:

- Interface Control Plan
- Technical Review Plan
- System Integration Plan
- Verification Plan
- Configuration Management Plan
- Data Management Plan (include structure of data and data archives used for verification and other analyses)
- Operations and Maintenance Planning
- Risk Management Plan

A SEMP framework for management of the process developments and preparation of the Technical Plans will be initiated within the proposal submittal as part of the proposal Management Plan. The details of each of the Management Plans above will be addressed. For each of the Technical Plans, the Systems Manager will detail methods, approaches, analysis techniques, and tools to accomplish each Plan as a part of the SEMP framework. Completed

SEMP framework will be negotiated and approved by SACOG before Task 2 begins.

The Systems Manager will complete the Technical Plans during Tasks 2 thru 4. At end of High Level Design, the Systems Manager will submit to SACOG a complete set of Plans that have been developed and approved during Tasks 2 thru 4. The SEMP will also include recommended Technical Plans to be developed by System Integrator as well as describe what should be detailed in each of the recommended plans. Special attention shall be given to recommended requirements for the overall Integration Plan to be executed by the System Integrator.

In summary, the proposal shall detail the management planning and describe the approach and methods to provide the services highlighted above and also detailed in Table 5-2 Phase 1, Task 4.3.2 *Systems Engineering Management Planning* of the SE Guidebook for Systems Engineering Technical Assistance.

Deliverable: Systems Engineering Management Plan

***Task 2 – Development of the Concept of Operations***

The Systems Manager will develop a Concept of Operations for the system. Guidelines for preparation of the Concept of Operations are located in Section 7.5.5 of the SE Guidelines. This will include the identification of stakeholders, needs, expectations and institutional issues that may impact the successful implementation and operations of the system. The Concept of Operations will include a vision of what the system is to do, what transportation issues the system is going to address, where the system is going to operate, what environment it will be operating in, who will be using it, and what the envisioned support is and how the system will be used. During this task, workshops, interviews, and surveys may be needed to identify all stakeholder needs. Other techniques may be suggested in the proposal to be used to elicit user requirements. Technical metrics will be identified and used to validate the system and assist in tracking technical progress.

The Systems Manager will give special emphasis to incorporating data into the existing 511 Travel Information System. Scenarios for successful integration of system-wide traffic and transit information directly to the website and telephone system of the existing 511 system will be considered. Solutions for delivering information to the public after STARNET is operational will be documented with metrics identified to validate effectiveness.

In summary, the proposal shall describe the approach and methods to provide the services highlighted above and also detailed in Table 5-2 Phase 1, Task 4.3.3 *Concept of Operations* of the SE Guidebook for Systems Engineering Technical Assistance.

Deliverables: Identify stakeholder needs  
Technical metrics to validate the system  
Concept of Operations

### ***Task 3 – Development of System Requirements and Verification Plan***

The Systems Manager will develop System Requirements consistent with the ITS Standards. At the completion of Task 3, the System Requirements will be developed to determine what the system will do. Guidelines for preparation of the Requirements are located in Section 7.5.6 of the SE Guidelines. Concurrent with the development of the system Requirements a Verification Plan will be developed to identify the way that the requirements will be tested. Guidelines for preparation of the Verification Plan are located in Section 7.5.9 of the SE Guidelines. The Verification Plan will include the requirements to be tested, test environment, input source, expected output and method of test, e.g. demonstration, test, inspection, or analysis.

The requirements will be traced back to the user needs and if additional user needs are uncovered the Concept of Operations will be updated to maintain the traceability with requirements. The requirements will be captured, written, analyzed, validated and maintained throughout the life of the project. Requirement attributes will be assigned to each requirement to assess the priority, risk, and cost of each.

Special emphasis shall be given to Requirements Management in the development of the Configuration Management Plan. It is a firm objective that this Plan shall apply through all the system life cycle phases of this C2C application from the requirements phase through the deployment and maintenance phases and to the systems retirement phase. It shall promote the proper identification of the configuration, control of changes, and record the change implementation status of the physical and functional characteristics of the system.

Automated management of requirements and their traceability shall be performed. The proposal shall describe the software tools that the consultant team is most familiar with and/or have used to accomplish this automation. The pros and cons of these requirements management toolsets shall be described with recommended selection for this C2C implementation.

In summary, the proposal shall describe the approach and methods to provide the services highlighted above and also detailed in Table 5-3 Phase 2, Task 4.4.1 *Requirements Development* of the SE Guidebook for Systems Engineering Technical Assistance.

Deliverable: System Requirements  
Verification Plan

### ***Task 4 – Development of the High Level Design Specifications***

The Systems Manager will develop the project level architecture, identify major subsystems and interfaces, and identify candidate industry and ITS standards that may be used as part of the Interface Control Documents (ICD's) between systems. This will include defined communication protocols and standards, data dictionary, message sets and other parameters and constraints. It will consider the external interfaces to the system and also develop Interface Control Documents with external agencies. Guidelines for preparation of the High Level Design Specifications are located in Section 7.5.7 of the SE Guidelines. Multiple architectures will be developed and assessed for balanced communications loading and minimal coupling and dependencies. Video sharing architecture considerations shall be included in this assessment.

The Systems Manager will develop verification test plans for each major sub-system. The identification of product Configuration Items will be established and will be used to drive the phasing of the projects as part of Task 5.

The Systems Manager will verify consistency of the selected project level architecture with the regional ITS architecture for the Sacramento region by mapping market packages with the functions of the project level architecture. This functional “as-built” information will be used by SACOG for maintenance of the regional ITS architecture.

The Systems Manager will provide complete SEMP for review and approval at end of Task 4. FHWA review and approval will be required, in accordance with Caltrans Local Assistance Program Guidelines (LAPG), Chapter 12.6 “*Intelligent Transportation Systems.*” For more information on Caltrans Local Programs requirements, go to [http://www.dot.ca.gov/hq/LocalPrograms/lam/prog\\_g/g12othr.pdf](http://www.dot.ca.gov/hq/LocalPrograms/lam/prog_g/g12othr.pdf). The SEMP will include recommended Technical Plans to be developed by System Integrator as well as describe what should be detailed in each of the recommended plans. Special attention shall be given to recommended requirements for the overall Integration Plan. Guidelines for preparation of the Integration Plan are located in Section 7.5.8 of the SE Guidelines.

Based on the project level Architecture, the Systems Manager shall develop an implementation budget and schedule for the Detailed Design and Implementation phase of the work (Task 5) in addition to detailing necessary operations and maintenance budgets/requirements. The Systems Manager will prepare the request for proposal or other system procurement documents for hiring a System Integrator. The Systems Manager will generate a list of potential System Integrators.

There is expectation that ICD’s and configuration items will be revisited when the System Integrator begins work. The Systems Manager shall provide strong leadership in addressing technical and institutional issues, and facilitating consensus development between the System Integrator and the ITS Partnership.

In summary, the proposal shall describe the approach and methods to provide the services highlighted above and also detailed in Table 5-3 Phase 2, Task 4.4.2 *High Level Design* of the SE Guidebook for Systems Engineering Technical Assistance.

Deliverable: High Level Design Specifications that may be used as part of the Interface Control Documents (ICD’s) between systems  
Implementation budget and schedule for the Detailed Design and Implementation Phase - Task 5  
Operations and maintenance budgets/requirements for task 5  
RFP for system integrator

#### ***Task 5 – Detailed Design and Implementation Oversight***

The Systems Manager will assist in the review of proposals, monitor system implementation and verification by the System Integrator, and provide technical assistance to SACOG throughout the development. The proposal shall describe the approach and methods to provide the services detailed in the SE Guidebook in Tables 5-3, 5-4, and 5-5 for Systems Engineering Technical

Assistance, specifically related to the following Tasks:

- Task 4.4.3 Component Detailed Design
- Task 4.5.1 Hardware / Software Development
- Task 4.5.2 Integration
- Task 4.5.3 Verification
- Task 4.5.4 Initial System Deployment

The scope of services for Task 5 (monitoring and support) will be updated during Task 4. Compensation for the Systems Manager's services for Task 5 will be acquired thru further negotiation as part of this RFP.

## **V. CONTRACT DELIVERABLES**

Please see section IV above for descriptions of the deliverables.

## **VI. CONTACT PERSONS**

David Shabazian, ITS Project Manager  
Sacramento Area Council of Governments  
1415 L Street, Suite 300  
Sacramento, CA 95814  
Phone: (916) 321-9000 Fax: (916) 321-9551  
[dshabazian@sacog.org](mailto:dshabazian@sacog.org)

## **VII. PROJECT TIMETABLE**

September 16, 2005	Issue Request for Proposals
October 14, 2005	Closing date for receipt of proposals
October 28, 2005	Finalists contacted to schedule interviews
November 7, 2005	Conduct interviews; recommend consultant
November 8, 2005	Contract award, execute contract
November 14, 2005	Start of Project/Begin Work

Proposals must be received no later than 5:00 p.m. on October 14, 2005. If mail delivery is used, the proposer should mail the proposal early enough to provide for arrival by this deadline. Proposer uses mail or courier service at their own risk. SACOG will not be liable or responsible for any late delivery of proposals. Proposers shall submit one (1) originally signed proposal and four (4) copies in a sealed envelope or package clearly marked "Proposal for Sacramento

Transportation Area Network (STARNET) System Engineering Technical Assistance.” Faxed documents will NOT be accepted. Interview and selection schedule may vary. Proposals may be delivered in person or mailed to:

David Shabazian, ITS Project Manager  
Sacramento Area Council of Governments  
1415 L Street, Suite 300  
Sacramento, CA 95814

By submitting a proposal, the proposer certifies that his or her name, as well as proposer subcontractors do not appear on the Comptroller General’s list of ineligible contractors for federally assisted projects.

Until award of the contract, the proposals shall be held in confidence and shall not be available for public review. Upon award of a contract to the successful proposer, all proposals shall be public records. No proposal shall be returned after the date and time set for opening thereof.

## **VIII. GENERAL CONDITIONS**

### **A. Limitations**

This request for proposal (RFP) does not commit SACOG to award a contract, to pay any costs incurred in the preparation of the contract in response to this request, or to procure or contract for services or supplies. SACOG expressly reserves the right to reject any and all proposals or to waive any irregularity or information in any proposal or in the RFP procedure and to be the sole judge of the responsibility of any proposer and of the suitability of the materials and/or services to be rendered. SACOG reserves the right to withdraw this RFP at any time without prior notice. Further SACOG reserves the right to modify the RFP schedule described above.

### **B. Award**

SACOG plans to ask RFP finalists to present oral briefings of their proposals. All finalists may be required to participate in negotiations and submit such price, technical, or other revisions of their proposals as may result from negotiations. SACOG also reserves the right to award the contract without discussion, based upon the initial proposals. Accordingly, each initial proposal should be submitted on the most favorable terms from a price and a technical viewpoint.

### **C. RFP Addendum**

Any changes to the RFP requirements will be made by written addenda by SACOG and shall be considered part of the RFP. Upon issuance, such addenda shall be incorporated in the agreement documents, and shall prevail over inconsistent provisions of earlier issued documentation.

### **D. Verbal Agreement or Conversation**

No prior, current, or post award verbal conversations or agreement(s) with any officer, agent, or employee of SACOG shall affect or modify any terms or obligations of the RFP, or any contract resulting from this RFP.

E. Precontractual Expense

Precontractual expenses are defined as expenses incurred by proposers and selected contractor in:

1. Preparing proposals in response to this RFP
2. Submitting proposals to SACOG
3. Negotiations with SACOG on any matter related to proposals.
4. Other expenses incurred by a contractor or proposer prior to the date of award of any agreement.

In any event, SACOG shall not be liable for any precontractual expenses incurred by any proposer or selected contractor. Proposers shall not include any such expenses as part of the price proposed in response to this RFP. SACOG shall be held harmless and free from any and all liability, claims, or expenses whatsoever incurred by, or on behalf of, any person or organization responding to this RFP.

F. Signature

The proposal will also provide the following information: name, title, address and telephone number of individual with authority to bind the company and also who may be contacted during the period of proposal evaluation. The proposal shall be signed by an official authorized to bind the consultant and shall contain a statement to the effect that the proposal is a firm offer for at least a sixty (60) day period. Execution of the contract is expected by November 14, 2005.

G. Contract Arrangements

The consultant is expected to execute a contract similar to SACOG's Standard Agreement, which meets the requirements of TEA 21. The most important provisions of the Standard Agreement are found in Part A. While \$1 million in comprehensive general liability coverage is required, under special circumstances SACOG may consider a lesser amount of insurance coverage, but not an amount less than \$500,000.

1. Disadvantaged Business Enterprise (DBE) Policy: It is the policy of the U.S. Department of Transportation that minority- and women-owned business enterprises (hereby referred to as DBEs) as defined in 49 CFR Part 23 shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal funds.
2. DBE Obligation: The recipient or its contractor agrees to ensure that DBEs have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds provided under this agreement. In this regard, all recipients or contractors shall take all necessary and reasonable steps in accordance with 49 CFR Part 23 to ensure that DBEs have the maximum opportunity to compete for and perform contracts. Recipients and their contractors shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of DOT-assisted contracts.

3. Title VI of the Civil Rights Act of 1964: The contractor agrees to comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 (49 USC 2000d) and the regulations of the U.S. Department of Transportation issued thereunder in 49 CFR Part 21.
4. Equal Employment Opportunity: In connection with the performance of the contract, the contractor shall not discriminate against any employee or applicant for employment because of race, color, age, creed, sex or national original. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

Each proposal, to be considered responsive, must include the following:

- (1) A copy of the consultant's affirmative action policy (applicable for firms with 50 or more employees)
- (2) Discussion of the consultant's program for use of DBEs in the performance of this work, including the following:
  - The names and addresses of DBE firms that will participate
  - The description of the work each named firm will perform
  - The dollar amount of participation by each DBE firm
- (3) Conflict of Interest

Firms submitting proposals in response to this RFP must disclose to SACOG any actual, apparent, or potential conflicts of interest that may exist relative to the services to be provided under Agreement for consultant services to be awarded pursuant to this RFP.

If this firm has no conflict of interest, a statement to that effect shall be included in the proposal.

## **IX. PROPOSAL CONTENT AND ORGANIZATION**

Proposals should be limited to specific discussion of the elements outlined in this RFP. The intent of this RFP is to encourage responses which meet the stated requirements, and which propose the best methods to accomplish the work within the stated budget.

The organization of the proposal should follow the general outline below. Each proposal should consist of a technical proposal (items 1-7 below) and a cost proposal (item 8).

### 1. Transmittal Letter

Only one transmittal letter need be prepared to accompany all copies of the technical and cost proposals. Submit a transmittal letter describing the Proposer and including the following:

- The official names of the Proposers, as well as any other names under which the Proposer does business.
- The address of the Proposer's headquarters, and any local office of the Proposer that will participate in the Systems Manager's contract.
- The Proposer's Federal Tax Identification Number.
- The name, address, e-mail address, telephone and fax numbers of the person(s) who will serve as the contact(s) with SACOG, with authorization to make representations on behalf of and to bind the Proposer.
- Original signature of the person authorized by your firm to negotiate on behalf of and to contractually bind the consulting firm to perform the commitments contained in the proposal.
- An acceptance of all conditions and requirements contained in this RFP. Any rejection of or objection to the conditions and requirements and requirements must be expressly set forth in the cover letter.

### 2. Table of Contents

A listing of the major sections in the proposal and the associated page numbers.

### 3. Introduction

Include a brief synopsis of the highlights of the Proposal and the overall benefits of the Proposals to SACOG. This synopsis should not exceed 5 pages in length and should be easily understandable. In this section, the proposer should demonstrate an adequate understanding of the role and relationships of SACOG.

### 4. Technical Approach

Describe the services and activities that your firm proposes to provide to SACOG. Include the following information:

- a. A comprehensive **Management Plan** detailing the approach to management of the work. If the proposal is a team effort, the distribution of work among the team members should be indicated. This section should discuss the proposer's organization for this project, how the work assignments are structured, and the staffing. A chart showing the amount of time each key team member is devoting to the project should be included. The proposer shall describe the role of any subcontractors, with a description of the subcontractors' specific responsibilities and amount of time each key team member is devoting to the project. The proposal should include an itemized description of the proposed project schedule (including visits, draft and final deliverables) and the deliverables to be produced, a staffing plan (by quarter) and an estimate of the total hours (detailed by position).
- b. A **Technical Proposal** shall be submitted to include comprehensive response to the tasks in the Scope of Work of this RFP and thorough explanation of the consultant's proposed course of action. The consultant should specify its technical approach, especially data

elements to be sampled, staff to be interviewed, and documents to be reviewed, etc. For this purpose, proposal submittals must include detailed descriptions of how each task of the Scope of Work will be conducted with proposed sequence of activities, identification of deliverables, and a schedule. The Technical Proposal should have sufficient detail to demonstrate a clear understanding of the project for each of the tasks:

- Systems Engineering Management Plan
- Concept of Operations
- System requirements and Verification Plans development
- Sub-system requirements & High Level Design
- Detailed design and implementation support

If the consultant proposes major changes to the RFP approach, those changes should be specified clearly.

- c. Discuss the **Level of Commitment** of project principals and key technical staff for project management. Include the workload for all key team members, and their availability for the STARNET project. List additional resources that will be assigned in each activity. Discuss the Proposer's ability to operate and sustain the project over the projected duration. Replacement of key personnel will not be permitted without prior consultation with and approval of SACOG.
- d. Include an **Organizational Plan** showing the proposed relationships among Proposer staff, SACOG staff, other system partners, and other parties that may have a significant role in the project. The plan should demonstrate optimal utilization of combined resources.

## 5. Project Management

The proposer must prepare an explanation of the project management system and practices to be used to assure that the project is completed within the scheduled time frame and that the quality of the required products will meet SACOG's requirements.

## 6. Consultant and Subcontractor Staff

The proposal must describe the qualifications and experience of each professional who will participate in the project, including a resume for each member of the project team. A project manager must be designated, and an organizational chart showing the manager and all project staff must be included. A matrix must be presented indicating the effort, either in percentage of the total project or in person-hours, which will be contributed by each professional, during each phase or task making up the project. If a subcontractor will be used, the proposer must include a letter from the subcontractor committing to perform at least the work shown for subcontractor professional in the above-described matrix.

## 7. Consultant Qualifications and References

### a. Firm Qualifications

Provide information on background and qualifications of all firms that will participate in the Systems Manager contract:

- Location of Headquarters as well as local offices that will participate in the Systems Manager's contract. Name, address, telephone number, and e-mail address of a contact person with the authority to commit the firm to a contract.
- Description of your firm, as well as how any joint venture or association would be structured.
- Description of ITS projects of similar size and type where the proposer and team members have performed Systems Engineering services as a Systems Manager similar to those described in this RFP. Include past experience in the role of System Integrator for similar size and type of ITS project. Include client, reference and telephone numbers, and staff members who worked on each project. Descriptions should be limited to one page for each project. If joint consultants or subconsultants are proposed, provide the above information for each.
- Provide evidence of application of the Vee Development Model. Describe key features of the model that will be important to the success of the ultimate operational system.
- Describe your familiarity with and application of Systems Engineering standards. What standards did you use and how did you use them? How do you intend to apply standards to this project using the Vee technical development model? (e.g., IEEE P1362 Concept of Operations)
- Describe your familiarity with and application of ITS standards, in particular NTCIP Center-to-Center activities. What standards did you use and how did you use them? How do you intend to apply standards to this project?
- Describe your familiarity with and application of requirements management tools. What tools did you use and how did you use them? How do you intend to apply these tools to this project?
- Show evidence of in-progress work toward a CMMI level of maturity (see <http://www.sei.cmu.edu/cmmi/>). This can be done by:
  - i. providing documented processes and procedures (drafts or final) showing project principals and key technical staff with appropriate certifications, and/or
  - ii. undertaking an internal CMMI assessment level 2 or better, and/or
  - iii. project staff demonstrating their expertise through professional certification programs like the INCOSE Certified Systems Engineering Professional (CSEP) and the Project Management Institute (PMI) Project Management Professional (PMP) certification. More information on these certifications can be found at [www.incose.org](http://www.incose.org) and [www.pmi.org](http://www.pmi.org).
- Present copies of SEMP documents and sample deliverables within those SEMP documents that you have developed.

b. Team Qualifications

Provide a list identifying the following:

- Each key person on the project team
- The project manager
- The role each will play in the project
- A written assurance that the key individuals listed and identified will be performing the work and will not be substituted with other personnel or reassigned to another project without SACOG's prior approval
- Provide a description of the experience and qualifications of the project team members in the form of a résumé for each individual

c. References

Provide three (3) to five (5) references for all participating firms, including the name, address, telephone number, and e-mail address of relevant clients (preferably other public agencies).

8. Cost Proposal

The cost proposal shall be provided in a **sealed envelope**, at an amount not exceeding \$500,000. Failure to provide adequate cost data, and in a sealed envelope, will result in the proposal rejected as unresponsive. Federal rules do not allow cost to be used to evaluate proposals; therefore a sealed cost proposal shall be submitted with the project proposal.

The cost proposal shall describe both the total price the consultant will commit to complete the total scope of work and end products and the detailed price for which the consultant will commit to complete each of the tasks of the scope of work. The cost proposal detail shall describe:

- All team member position titles and hours of work for each individual task
- Estimated costs for each of the tasks described in the Scope of Work
- Estimated costs for travel and per-diem (if applicable), and for materials and supplies
- A schedule of the hourly billing rates for all team members.

The number of hours of work in the sealed cost proposal shall not be significantly different from the numbers expressed in the submission requirements.

The cost proposal requires an accompanying transmittal letter signed by a person authorized to bind the proposal. The letter must guarantee all costs quoted for the term of the agreement. The proposer's cost will not be a consideration in the selection process. SACOG will open the envelope after the selection process is completed.

## **X. PROPOSAL EVALUATION AND SELECTION**

### **1. Selection Committee**

The proposals will be evaluated by a Selection Committee comprised of SACOG staff and non-SACOG parties with relevant expertise in metropolitan ITS and Project Management. The Selection Committee will select proposals with the highest point total in accordance with the

selection criteria and Proposers may be telephoned and asked for further information. Previous clients will also be called. The Committee may then decide to invite the selected Proposers for an oral interview, at the SACOG in Sacramento, California, at no cost to SACOG. The Committee will select the proposal which best fulfills SACOG's requirements and will make recommendations to the SACOG Executive Director on the basis of the proposal, oral interview, and reference check. SACOG reserves the right to select a consultant based solely on written proposals and not convene oral interviews. SACOG will negotiate with that Proposer to reach agreement on the terms and conditions of a final contract.

## **2. Proposal Evaluation and Ranking**

Upon receipt of the proposals, a technical evaluation will be performed. Each of the major sections of the proposal will be reviewed and evaluated with criteria designed to help judge the quality of the proposal. The Selection Committee will evaluate the proposals based on the following format:

**Step 1.** The Selection Committee will evaluate each proposal to determine if the Proposal meets the Screening Requirements set forth in the RFP:

- Submission Requirements
- Terms and conditions for receipt of Proposals
- Comply with the Disadvantaged Business Enterprise Program Requirements as set forth in this RFP.

**Step 2.** Proposals that comply with the screening requirements will go on to step 2 of the evaluation process. The Selection Committee will evaluate each proposal based on the criteria and point evaluations as follows:

### **CRITERIA**

#### **A. Response to Project Approach (40 points)**

- Understanding of the background and requirements of the project
- Management Plan
- Technical Approach that demonstrates ability to perform the tasks outlined in the Scope of Work of this RFP
- Level of Commitment
- Organizational Plan that demonstrates optimal utilization of combined resources of the System Manager team and SACOG staff, in terms of quality and quantity, to key tasks including the time and skills of personnel assigned to the tasks and consultant's approach to managing resources and project output.

#### **B. Experience of Firm and Sub-consultants (25 points)**

- Number of years in ITS deployment and other related fields
- Experience in application of Systems Engineering process, models, and standards
- Experience in the role of Systems Manager and System Integrator for similar size and type of ITS project
- Experience in software procurements, licensing, and IP issues

- Recently completed projects in the metropolitan ITS field and other related fields
- Adherent to schedules, deliverables and budgets of these completed projects
- Evidence of in-progress work toward a CMMI level of maturity

**C. Project Staff Qualifications (35 points)**

- The proposed project manager’s experience in the application of Systems Engineering process and standards to metropolitan ITS and other related fields. The project manager’s prior experience in lead Systems Manager role of similar ITS projects
- Experience facilitating consensus development and addressing both institutional and technical issues involving multiple jurisdictions and agencies
- Individual team members’ professional qualifications, education, and training
- Role team members will play in connection with proposal.

**D. Responsiveness to DBE Program Requirements (Pass/Fail)**

**TOTAL POSSIBLE POINTS: 100 POINTS**

**Step 3. Ranking and Selection of Short List:** The Selection Committee will rank each proposal in descending order based on the highest numbers of points given to each proposal. The Selection Committee will define for its own purposes a short list.

**Step 4. Oral Interview:** Following the evaluation of the written proposals, the Selection Committee may elect to invite a maximum of four Proposers receiving the highest scores to an oral interview. The scores at that time will not be communicated to the participating Proposers. The oral interview will consist of standard questions asked of each of the Proposers, and specific questions regarding each individual proposal, as well as additional information that the Proposer may provide to further clarify its ability to provide the required services. The Proposals may then be further evaluated based on the oral interview.

**Step 5. Reference Check:** The Selection Committee will perform reference checks on all or some of the selected short list of Proposers to ensure that the potential Proposers possess the necessary resources and will be able to provide a high level of service. These reference checks include but are not limited to the experience of the firm in Systems Engineering and the ITS field, the role that employees have played on projects in other jurisdictions, the financial stability and resources of the firm, and any other issue the Selection Committee deems relevant to this request for services. If, based on the reference checks, the Selection Committee determines that Proposer is unable to fulfill the services required in the Request for Proposals, the Selection Committee reserves the right to select the next most qualified Proposer.

**3. Negotiation of Final Agreement**

The Proposer selected by the Selection Committee shall cooperate with SACOG in good faith to promptly negotiate, execute, and deliver the Final Contract Document. SACOG shall draft the Final Document, and require the selected Proposer to attend a contract negotiation conference(s)

to discuss any and all possible revisions to the technical terms and conditions, pricing, and any part of the Proposal, as well as any additional provisions that may be added to the Final Agreement, as required by SACOG resolution or policy, by applicable Federal or State laws, rules and regulations, or by mutual agreement of the parties.

If at any time, and for any reason, negotiations with the selected Proposer fail to proceed to the reasonable satisfaction of SACOG, SACOG shall have the right to terminate such negotiations without liability and reject the selected Proposer's offer. SACOG shall then have the right to negotiate with and enter into the Final Agreement with any other

## **XI. PAYMENT SCHEDULE**

In consideration of the performance of these services, the consultant will be compensated the fixed price amount for each task of the scope of work. This fixed price amount is based upon the scope of services and level of effort presented above. Consultant will invoice monthly based upon negotiated estimate of progress (percent complete). The consultant will be paid based on work actually performed during the preceding month. The consultant should forward a copy of all invoices for payment for work performed and associated expenses by the 15th day of the following month. SACOG will withhold ten percent (10%) of the payments until the successful completion of the project and the delivery and acceptance of all final products.

The scope of services for Task 5 (monitoring and support) will be better specified during Task 4. Additional grant applications may be pending for implementation of future integration phases. SACOG will issue an RFP to retain a Systems Integrator upon securing additional grant funds. Compensation for the additional Systems Manager's services of Task 5 will be acquired through further negotiation as another Task Order of this RFP.

**PART A**

**AGREEMENT BETWEEN  
THE SACRAMENTO AREA COUNCIL OF GOVERNMENTS  
(HEREINAFTER DESIGNATED AS "SACOG")  
AND**

**(HEREINAFTER DESIGNATED AS "CONSULTANT")**

- 1. CHANGES:** The parties, from time to time, may change the scope of the services of CONSULTANT to be performed hereunder. Such changes, including any increase or decrease in the amount of CONSULTANT's compensation, which are mutually agreed upon by and between SACOG and CONSULTANT, shall be incorporated in written amendments to this Agreement.
- 2. TERMINATION OF AGREEMENT FOR CAUSE:** If CONSULTANT shall fail to fulfill its obligations under this Agreement, without reasonable cause, in a timely and proper manner, or if CONSULTANT shall violate any of the covenants, agreements, or stipulations of this Agreement, SACOG shall provide written notice to the CONSULTANT identifying the deficiency. The CONSULTANT shall have 20 days to correct the deficiency and to provide written explanation to SACOG of the corrective action taken. Should satisfactory resolution not be reached, SACOG shall thereupon have the right to terminate this Agreement by giving written notice to CONSULTANT of such termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In that event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, and reports prepared by CONSULTANT with the funds provided shall, at the option of SACOG, become SACOG's property, and CONSULTANT shall be entitled to receive just and equitable compensation for any satisfactory work completed on such documents and other materials through the date of termination.

Notwithstanding the above, CONSULTANT shall not be relieved of liability to SACOG for damage sustained by SACOG by virtue of any breach of the Agreement by CONSULTANT. In no event shall liability for damages exceed the amount of the agreement.

- 3. TERMINATION FOR CONVENIENCE OF SACOG:** SACOG may terminate this agreement at any time by giving written notice to CONSULTANT of such termination and specifying the effective date thereof, at least fifteen (15) days before the effective date of such termination. In that event, all finished or unfinished documents and other materials as described in Paragraph 2 hereof shall, at the option of SACOG, become SACOG's property. If the Agreement is terminated by SACOG, as provided herein, CONSULTANT will be paid an amount which bears the same ratio to the total compensation as the services actually performed bear to the total services of CONSULTANT covered by this Agreement, less payments of compensation previously made. However, if less than 60 percent of the services covered by this Agreement have been performed upon the effective date of such termination, CONSULTANT shall be reimbursed (in addition to the above payment) for that portion of

the actual out-of-pocket expenses (not otherwise reimbursed under this Agreement) incurred by CONSULTANT during the Agreement period which are directly attributable to the uncompleted portion of the services covered by this Agreement. If this Agreement is terminated due to the fault of CONSULTANT, Paragraph 2, Part A hereof relative to termination shall apply.

**4. LEGAL RELATIONSHIP:**

1. It is understood and agreed that SACOG is an independent entity and that no relationship of employer-employee exists between the parties hereto.
2. It is further understood and agreed by the parties hereto that CONSULTANT, in the performance of its obligations hereunder, is subject to the control or direction of SACOG only as set forth herein and that SACOG shall not exercise direction and control over operating procedures and methodology.

**5. HATCH ACT:** The CONSULTANT will comply with the provisions of the Hatch Act which limit the political activity of employees.

**6. AMERICANS WITH DISABILITIES ACT (ADA):** CONSULTANT will comply with the provisions of the Americans with Disabilities Act (ADA) which:

1. Prohibits discrimination against the disabled in hiring and employment;
2. Prohibits discrimination in public transportation and requires public transit systems to provide the same level of public transportation service to individuals with disabilities as to those without disabilities using the same system;
3. Prohibits discrimination against the disabled in public accommodations and in commercial facilities; and
4. Requires interstate and intrastate telecommunication systems to provide telecommunication relay services for individuals with hearing or speech impairments.

**7. DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS:** CONSULTANT understands that it is not to be in violation of any of the following provisions:

1. Is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency.

2. Has not, within a three-year period preceding this Agreement, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
  3. Is not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in paragraph B.
  4. Has not, within a three year period preceding this Agreement, had one or more public transactions (federal, state or local) terminated for cause or default.
8. **POLITICAL REFORM ACT REQUIREMENTS:** CONSULTANT agrees that, because of the work to be performed pursuant to this Agreement, its officers, members or employees may be considered "consultants" as defined in the Political Reform Act (Govt. Code § 81000 *et seq.*) (the "Act") and its implementing regulations (2 Cal. Code Regs. § 18110 *et seq.*) (the "Regulations"). CONSULTANT agrees that any of its officers, members or employees who are deemed to be consultants by the Executive Director of SACOG, as provided in the Conflict of Interest Code for SACOG, shall file economic disclosure statements. The extent of the economic disclosure required shall be the broadest disclosure category in the Conflict of Interest Code for SACOG, provided, however, that the Executive Director of SACOG may determine, based upon the scope of work to be performed by CONSULTANT under this Agreement, that more limited disclosure requirements apply. The economic disclosure statements shall be filed at the times and in the place specified by the Conflict of Interest Code for SACOG.
9. **FUNDING REQUIREMENTS:**
1. It is mutually understood between the parties that this Agreement may have been executed before ascertaining the availability of Congressional or Legislative appropriation of funds, for the mutual benefit of both parties in order to avoid program and fiscal delays that would occur if the Agreement were executed after that determination was made.
  2. This Agreement is valid and enforceable only if sufficient funds are obligated and made available to SACOG for the purpose of this program. In addition, this Agreement is subject to any additional restrictions, limitations, conditions, or any statute enacted by the Congress or the State Legislature that may affect the provisions, terms, or funding of this Agreement in any manner.
  3. It is mutually agreed that if sufficient funds are not appropriated for this program, this Agreement shall be amended to reflect any reduction in funds.

**10. INDEMNIFICATION AND INSURANCE:**

1. CONSULTANT agrees to indemnify, defend and save harmless SACOG, its officers, agents and employees from and against any and all claims, demands, damages or losses accruing, arising or resulting from CONSULTANT's negligence with respect to CONSULTANT's work performance pursuant to this Agreement and/or the work performed by any and all contractors, subcontractors, laborers and any other person, firm or corporation furnishing or supplying work services, materials or supplies in connection with its negligent performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by CONSULTANT in the performance of this Agreement, except claims or losses accruing as a result of the sole negligence or willful misconduct of SACOG.
2. That, as an independent entity, CONSULTANT hereby holds SACOG harmless from any and all claims that may be made against SACOG based upon any contention by any third party that an employer-employee relationship exists by reason of this Agreement.
3. CONSULTANT, during the term of this Agreement, shall maintain in effect Worker's Compensation Insurance and employer liability coverage in the limits required by State law and no less than One Million Dollars (\$1,000,000) per claim and in the aggregate in comprehensive general liability insurance, or provide SACOG with adequate evidence of self insurance. CONSULTANT shall, upon execution of any agreement, provide SACOG with proof of required insurance, and shall name SACOG as an additional insured on all relevant insurance policies.
4. CONSULTANT shall not, during the term of this Agreement, cancel, or non-renew these insurance requirements until after forty-five (45) days advance written notice to SACOG.

**11. ACCESS TO RECORDS AND AUDIT:**

1. CONSULTANT shall maintain all books, documents, papers, accounting records and other evidence pertaining to costs incurred, and make such materials available at their respective offices at all reasonable times during the contract period and for five years from the date of final payment to CONSULTANT. CONSULTANT shall, in no event, dispose of, destroy, alter, or mutilate said books, documents, papers, accounting records or other evidence pertaining to costs incurred in any manner whatsoever, for a minimum of five years following the date of final payment. Such materials shall be available for inspection by authorized representatives of SACOG, or copies thereof shall be furnished if requested.
2. CONSULTANT shall permit SACOG to have access to all such relevant data for the purpose of making an annual fiscal and compliance audit of all funds received as part

of this Agreement. Such audit shall be conducted, either separately or in conjunction with other required audits, in accordance with generally accepted governmental auditing standards by an independent CONSULTANT (such as a County Auditor, State Controller, a Certified Public Accountant, etc.). Audit requirements are on the basis of OMB Circular A-133.

3. CONSULTANT shall permit SACOG and State and Federal auditors to have access to all such relevant data for the purpose of making an audit, excerpt, and transcription, for a minimum of five years following the date of final payment.
4. CONSULTANT understands that the purpose of such audit is to establish that all examined costs have been legitimately incurred in conjunction with the work hereunder. Such audit may disallow certain costs, in which case CONSULTANT will be required to make refund payments.

## **12. PERSONNEL:**

1. CONSULTANT represents that it has, or will secure at its own expense, all personnel required to perform the services under this Agreement. Such personnel shall not be employees of or have any contractual relationship with SACOG.
2. All of the services required hereunder will be performed by CONSULTANT or under its supervision, and all personnel engaged in the work shall be authorized under State and local law to perform such services.
3. CONSULTANT shall not be entitled to any benefits available to employees of SACOG.
4. SACOG is not required to make any deductions from compensation payable to CONSULTANT under the provisions of this Agreement.
5. If, in the performance of this Agreement, any third persons are employed as employees of CONSULTANT, such persons shall be employed by and shall be entirely and exclusively under direction, supervision, and control of CONSULTANT. All terms of employment of said persons, including hours, wages, working conditions, discipline, hiring and discharging, or any other terms of employment or requirements of law, shall be made by CONSULTANT. SACOG shall have no right or authority over said persons or the terms of such employment.
6. CONSULTANT, as an independent employer, shall be liable and hereby expressly assumes and accepts exclusive liability as an employer under the Federal Insurance Contributions Act, the Federal Unemployment Tax Act, Federal Social Security Acts, the Unemployment Compensation or other taxes or penalties arising or levied by reason of the employment of such persons employed by it. SACOG shall not be liable for any Worker's Compensation or other benefits accruing under any Federal or State

Law or acts to any persons employed by CONSULTANT under this Agreement. Such liability, if any, shall be exclusively that of CONSULTANT.

13. **CONVICT LABOR:** In connection with the performance of work under this Agreement, CONSULTANT agrees not to employ any person undergoing sentence of imprisonment.
14. **SPECIFICATIONS:**
  1. All specifications, manuals, standards, etc., either attached to this Agreement or incorporated by reference, are deemed to be the issue in effect as of the date of this Agreement and are binding as to the performance of the work specified in this Agreement unless they are changed by written amendment of the Agreement modified in writing to incorporate such changes.
  2. All tasks hereunder are to be performed on a "best effort" basis with the full completion of all tasks as the goal which CONSULTANT shall seek, with all due diligence, to attain.
15. **RIGHTS:** CONSULTANT agrees, and does hereby grant, to the SACOG a royalty-free, non-exclusive and irrevocable license throughout the world for government purposes to publish, translate, reproduce, and otherwise use and dispose of, and to authorize others to do so, all data, including reports, patents, copyrights, drawings, blueprints and technical information resulting from the performance of the work under this Agreement. CONSULTANT will not include copyrighted matter in the material furnished under this agreement without written permission from the copyright owner.
16. **ASSIGNABILITY:** CONSULTANT shall not assign any interest in this Agreement, and shall not transfer any interest in the same without the prior written consent of SACOG thereto; provided, however, that claims for money due or to become due CONSULTANT from SACOG under this Agreement may be assigned to a bank, trust company, or other financial institution without such approval. Notice of any such assignment or transfer shall be furnished promptly to SACOG.
17. **INTEREST OF CONSULTANT:** CONSULTANT covenants that he presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. CONSULTANT further covenants that in the performance of this Agreement no person having any such interest shall be employed.
18. **BONUS OR COMMISSION:** CONSULTANT shall not pay any bonus or commission for the purpose of obtaining this Agreement.
19. **RIGHT TO REUSE CONSULTANT-PREPARED MATERIALS:** If, under the provisions of this Agreement, CONSULTANT develops any products or materials, CONSULTANT agrees that such products or materials shall be the property of SACOG and

may be used as SACOG sees fit, including the right to reuse and publish the same without limitation, however any such reuse shall be at the sole risk of SACOG.

20. **FORCE MAJEURE:** Neither SACOG nor CONSULTANT shall be liable or deemed to be in default for any delay or failure in performance under this Agreement or interruption of services resulting, directly or indirectly, from acts of God or of the public enemy, acts of government, in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, and unusually severe weather, or any similar cause beyond the reasonable control of SACOG or CONSULTANT.
21. **DISPUTE:** Any dispute not resolved by informal negotiation between the parties to this contract may be adjudicated in a Court of Law under the laws of the State of California.
22. **INTEGRATION:** This Agreement represents the entire understanding of SACOG and CONSULTANT as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. This Agreement may not be modified or altered except in writing signed by SACOG and CONSULTANT.

Exhibit A: Map of STARNET Target Area

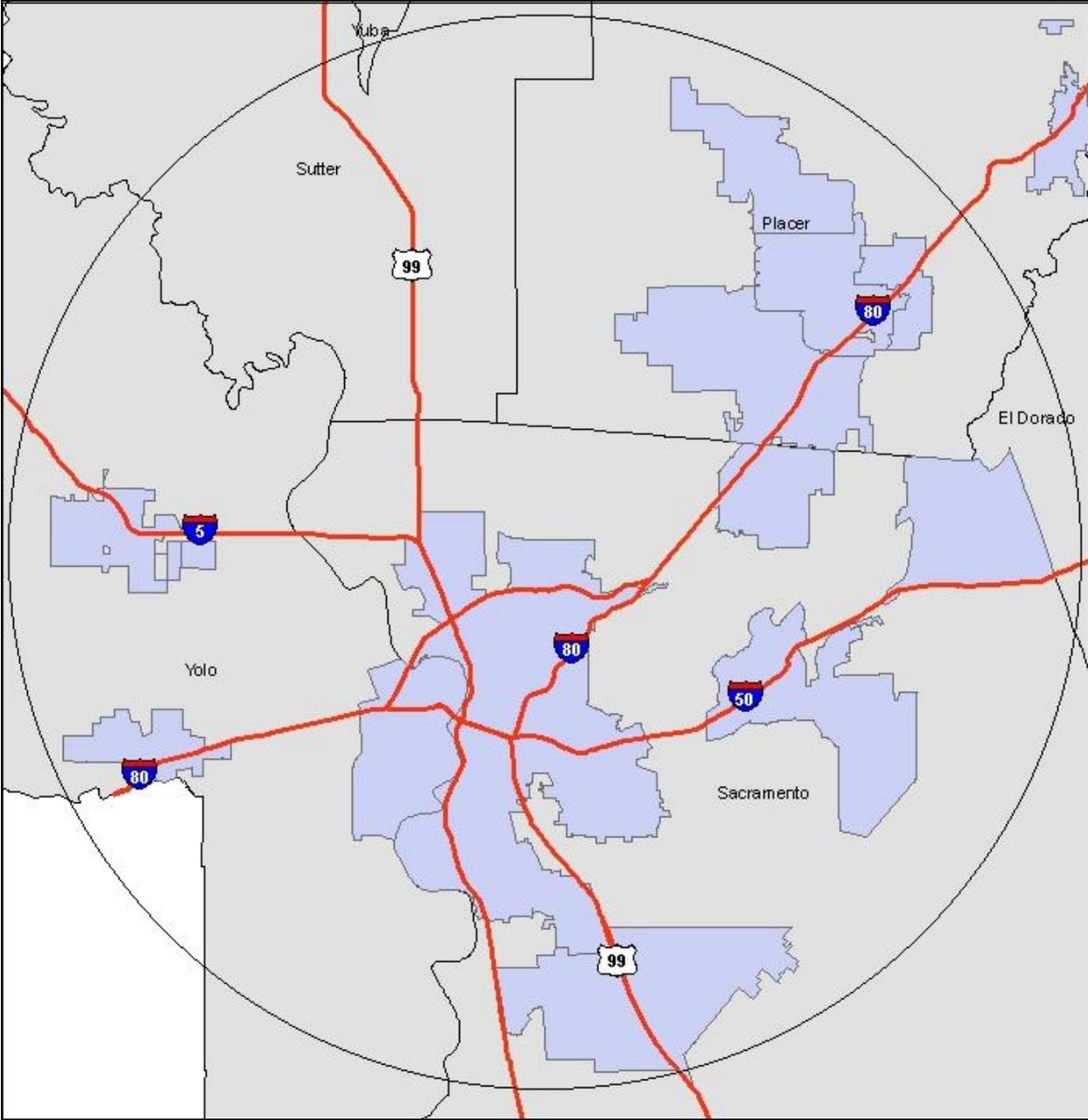


Exhibit B: Vee Development Model

