

REQUEST FOR PROPOSALS (RFP) 8-2038

CONSULTANT SERVICES FOR TRAFFIC AND INTELLIGENT TRANSPORTATION SYSTEMS ENGINEERING SERVICES



ORANGE COUNTY TRANSPORTATION AUTHORITY

**550 South Main Street
P.O. Box 14184
Orange, CA 92863-1584
(714) 560-6282**

Key RFP Dates

Issue Date:	November 12, 2018
Pre-Proposal Conference Date:	November 19, 2018
Question Submittal Date:	November 27, 2018
Proposal Submittal Date:	December 12, 2018
Interview Date:	January 15 and 16, 2019

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NOTICE OF REQUEST FOR PROPOSALS

(RFP): 8-2038: "CONSULTANT SERVICES FOR TRAFFIC AND INTELLIGENT TRANSPORTATION SYSTEMS ENGINEERING SERVICES"

TO: ALL OFFERORS

FROM: ORANGE COUNTY TRANSPORTATION AUTHORITY

The Orange County Transportation Authority (Authority) invites proposals from qualified consultants to intelligent transportation systems and traffic engineering services.

Authority intends to award two contracts as a result of this procurement: one each to intelligent transportation systems and traffic engineering services for Katella Avenue (Project 1) and Main Street (Project 2). When submitting their proposal, Offerors are asked to specify the project on which they prefer to work. Offerors interested in proposing on both projects must submit, within their proposal a separate work plan for each project.

Proposals must be received in the Authority's office at or before 2:00 p.m. on December 12, 2018.

Proposals delivered in person or by a means other than the U.S. Postal Service shall be submitted to the following:

**Orange County Transportation Authority
Contracts Administration and Materials Management
600 South Main Street, (Lobby Receptionist)
Orange, California 92868
Attention: Venita Anderson, Senior Contract Administrator**

Proposals delivered using the U.S. Postal Service shall be addressed as follows:

Orange County Transportation Authority
 Contracts Administration and Materials Management
 P.O. Box 14184
 Orange, California 92863-1584
 Attention: Venita Anderson, Senior Contract Administrator

Proposals and amendments to proposals received after the date and time specified above will be returned to the Offerors unopened.

Firms interested in obtaining a copy of this Request for Proposals (RFP) may do so by downloading the RFP from CAMM NET at <https://cammnet.octa.net>.

All firms interested in doing business with the Authority are required to register their business on-line at CAMM NET. The website can be found at <https://cammnet.octa.net>. From the site menu click on CAMM NET to register.

To receive all further information regarding this RFP 8-2038, firms and subconsultants must be registered on CAMM NET with at least one of the following commodity codes for this solicitation selected as part of the vendor's on-line registration profile:

Category:

Professional Consulting

Professional Services

Commodity:

Consultant Services - General

Consultant Services -

Transportation Planning

Consultant Services –

Intelligent Transportation

Systems (ITS)

Traffic Planning Consulting

Engineering - Traffic

A pre-proposal conference will be held on November 19, 2018, at 2:00 p.m. the Authority's Administrative Office, 600 South Main Street, Orange, California, in Conference Room 8. All prospective Offerors are encouraged to attend the pre-proposal conference.

Offeror's are asked to submit written statements of technical qualifications and describe in detail their work plan for completing the work specified in the Request for Proposal. **No cost proposal or estimate of work hours is to be included in this phase of the RFP process.**

The Authority has established January 15 and 16, 2019, as the date to conduct interviews. All prospective Offerors will be asked to keep this date available.

Certain labor categories under this project are subject to prevailing wages as identified in the State of California Labor Code commencing in Section 1770 et. Seq. It is required that all mechanics and laborers employed or working at the site be paid not less than the basic hourly rates of pay and fringe benefits as shown in the current minimum wage schedules. Offerors must use the current wage schedules applicable at the time the work is in progress.

Offerors are encouraged to subcontract with small businesses to the maximum extent possible.

All Offerors will be required to comply with all applicable equal opportunity laws and regulations.

The award of this contract is subject to receipt of federal, state and/or local funds adequate to carry out the provisions of the proposed agreement including the identified Scope of Work.

SECTION I: INSTRUCTIONS TO OFFERORS

SECTION I. INSTRUCTIONS TO OFFERORS**A. PRE-PROPOSAL CONFERENCE**

A pre-proposal conference will be held on November 19, 2018, at 2:00 p.m. the Authority's Administrative Office, 600 South Main Street, Orange, California, in Conference Room 8. All prospective Offerors are encouraged to attend the pre-proposal conference.

B. EXAMINATION OF PROPOSAL DOCUMENTS

By submitting a proposal, Offeror represents that it has thoroughly examined and become familiar with the work required under this RFP and that it is capable of performing quality work to achieve the Authority's objectives.

C. ADDENDA

The Authority reserves the right to revise the RFP documents. Any Authority changes to the requirements will be made by written addendum to this RFP. Any written addenda issued pertaining to this RFP shall be incorporated into the terms and conditions of any resulting Agreement. The Authority will not be bound to any modifications to or deviations from the requirements set forth in this RFP as the result of oral instructions. Offerors shall acknowledge receipt of addenda in their proposals. Failure to acknowledge receipt of Addenda may cause the proposal to be deemed non-responsive to this RFP and be rejected.

D. AUTHORITY CONTACT

All communication and/or contacts with AUTHORITY staff regarding this RFP are to be directed to the following Contract Administrator:

Venita Anderson, Senior Contract Administrator
Contracts Administration and Materials Management Department
600 South Main Street
P.O. Box 14184
Orange, CA 92863-1584
Phone: 714.560. 5427, Fax: 714.560.5792
Email: vanderson@octa.net

Commencing on the date of the issuance of this RFP and continuing until award of the contract or cancellation of this RFP, no proposer, subcontractor, lobbyist or agent hired by the proposer shall have any contact or communications regarding this RFP with any Authority's staff; member of the evaluation committee for this RFP; or any contractor or consultant involved with the procurement, other than the Contract Administrator named above or unless expressly permitted by this RFP. Contact includes face-to-face, telephone, electronic mail (e-mail) or formal written communication. Any proposer, subcontractor, lobbyist or agent hired by the

proposer that engages in such prohibited communications may result in disqualification of the proposer at the sole discretion of the Authority.

E. CLARIFICATIONS

1. Examination of Documents

Should an Offeror require clarifications of this RFP, the Offeror shall notify the Authority in writing in accordance with Section D.2. below. Should it be found that the point in question is not clearly and fully set forth, the Authority will issue a written addendum clarifying the matter which will be sent to all firms registered on CAMM NET under the commodity codes specified in this RFP.

2. Submitting Requests

- a. All questions, including questions that could not be specifically answered at the pre-proposal conference must be put in writing and must be received by the Authority no later than 5:00 p.m., on November 27, 2018.
- b. Requests for clarifications, questions and comments must be clearly labeled, "Written Questions". The Authority is not responsible for failure to respond to a request that has not been labeled as such.
- c. Any of the following methods of delivering written questions are acceptable as long as the questions are received no later than the date and time specified above:
 - (1) U.S. Mail: Orange County Transportation Authority, 550 South Main Street, P.O. Box 14184, Orange, California 92863-1584.
 - (2) Personal Delivery: Contracts Administration and Materials Management Department, 600 South Main Street, Lobby Receptionist, Orange, California 92868.
 - (3) Facsimile: (714) 560-5792.
 - (4) Email: vanderson@octa.net

3. Authority Responses

Responses from the Authority will be posted on CAMM NET, no later than December 3, 2018. Offerors may download responses from CAMM NET at <https://cammnet.octa.net>, or request responses be sent via U.S. Mail by emailing or faxing the request to Venita Anderson, Senior Contract Administrator.

To receive email notification of Authority responses when they are posted on CAMM NET, firms and subconsultants must be registered on CAMM NET with at least one of the following commodity codes for this solicitation selected as part of the vendor's on-line registration profile:

<u>Category:</u>	<u>Commodity:</u>
Professional Consulting	Consultant Services - General
	Consultant Services -
	Transportation Planning
	Consultant Services –
	Intelligent Transportation
	Systems (ITS)
	Traffic Planning Consulting
Professional Services	Engineering - Traffic

Inquiries received after 5:00 p.m. on November 27, 2018, will not be responded to.

F. SUBMISSION OF PROPOSALS

1. Date and Time

Proposals must be received in the Authority's office at or before 2:00 p.m. on December 12, 2018.

Proposals received after the above-specified date and time will be returned to Offerors unopened.

2. Address

Proposals delivered in person or by a means other than the U.S. Postal Service shall be submitted to the following:

**Orange County Transportation Authority
Contracts Administration and Materials Management (CAMM)
600 South Main Street, (Lobby Receptionist)
Orange, California 92868
Attention: Venita Anderson, Senior Contract Administrator**

Or proposals delivered using the U.S. Postal Services shall be addressed as follows:

**Orange County Transportation Authority
Contracts Administration and Materials Management (CAMM)
P.O. Box 14184
Orange, California 92863-1584
Attention: Venita Anderson, Senior Contract Administrator**

3. Identification of Proposals

Offeror shall submit an **original and 6 copies** of its proposal in a sealed package, addressed as shown above in F.2. The outer envelope must show the Offeror's name and address and clearly marked with RFP number. In addition to the above, Proposers shall also include one (1) electronic copy of their entire RFP submittal package in "PDF" format, on a CD, DVD, or flash drive.

4. Acceptance of Proposals

- a. The Authority reserves the right to accept or reject any and all proposals, or any item or part thereof, or to waive any informalities or irregularities in proposals.
- b. The Authority reserves the right to withdraw or cancel this RFP at any time without prior notice and the Authority makes no representations that any contract will be awarded to any Offeror responding to this RFP.
- c. The Authority reserves the right to issue a new RFP for the project.
- d. The Authority reserves the right to postpone proposal openings for its own convenience.
- e. Each proposal will be received with the understanding that acceptance by the Authority of the proposal to provide the services described herein shall constitute a contract between the Offeror and Authority which shall bind the Offeror on its part to furnish and deliver at the prices given and in accordance with conditions of said accepted proposal and specifications.
- f. The Authority reserves the right to investigate the qualifications of any Offeror, and/or require additional evidence of qualifications to perform the work.
- g. Submitted proposals are not to be copyrighted.

G. PRE-CONTRACTUAL EXPENSES

The Authority shall not, in any event, be liable for any pre-contractual expenses incurred by Offeror in the preparation of its proposal. Offeror shall not include any such expenses as part of its proposal.

Pre-contractual expenses are defined as expenses incurred by Offeror in:

1. Preparing its proposal in response to this RFP;
2. Submitting that proposal to the Authority;
3. Negotiating with the Authority any matter related to this proposal; or
4. Any other expenses incurred by Offeror prior to date of award, if any, of the Agreement.

H. JOINT OFFERS

Where two or more firms desire to submit a single proposal in response to this RFP, they should do so on a prime-subcontractor basis rather than as a joint venture. The Authority intends to contract with a single firm and not with multiple firms doing business as a joint venture.

I. TAXES

Offerors' proposals are subject to State and Local sales taxes. However, the Authority is exempt from the payment of Federal Excise and Transportation Taxes. Offeror is responsible for payment of all taxes for any goods, services, processes and operations incidental to or involved in the contract.

J. PROTEST PROCEDURES

The Authority has on file a set of written protest procedures applicable to this solicitation that may be obtained by contacting the Contract Administrator responsible for this procurement. Any protests filed by an Offeror in connection with this RFP must be submitted in accordance with the Authority's written procedures.

K. CONTRACT TYPE

It is anticipated that the Agreement resulting from this solicitation, if awarded, will be a firm-fixed price contract specifying firm-fixed prices for individual tasks specified in the Scope of Work, included in this RFP as Exhibit A. The Authority intends to award two contracts as a result of this procurement.

L. PREVAILING WAGES

Certain labor categories under this project are subject to prevailing wages as identified in the State of California Labor Code commencing in Section 1770 et.seq. The proposer to whom a contract for the work is awarded by the Authority shall comply with the provision of the California Labor Code, including, without limitation, the obligation to pay the general prevailing rates of wages in the locality in which the work is to be performed in accordance with, without limitation, Sections 1773.1, 1774, 1775 and 1776 of the California Labor Code governing employment of apprentices. Copies of the prevailing rates of per diem wages are

on file at the Authority's principal office at 550 S. Main Street, Orange, CA 92868 and are available to any interested party on request.

M. CONFLICT OF INTEREST

All Offerors responding to this RFP must avoid organizational conflicts of interest which would restrict full and open competition in this procurement. An organizational conflict of interest means that due to other activities, relationships or contracts, an Offeror is unable, or potentially unable to render impartial assistance or advice to the Authority; an Offeror's objectivity in performing the work identified in the Scope of Work is or might be otherwise impaired; or an Offeror has an unfair competitive advantage. Conflict of Interest issues must be fully disclosed in the Offeror's proposal.

All Offerors must disclose in their proposal and immediately throughout the course of the evaluation process if they have hired or retained an advocate to lobby AUTHORITY staff or the Board of Directors on their behalf.

Offerors hired to perform services for the Authority are prohibited from concurrently acting as an advocate for another firm who is competing for a contract with the AUTHORITY, either as a prime or subcontractor.

N. CODE OF CONDUCT

All Offerors agree to comply with the Authority's Code of Conduct as it relates to Third-Party contracts which is hereby referenced and by this reference is incorporated herein. All Offerors agree to include these requirements in all of its subcontracts.

SECTION II: PROPOSAL CONTENT

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A. PROPOSAL FORMAT AND CONTENT

1. Format

Proposals should be typed with a standard 12-point font, double-spaced and submitted on 8 1/2" x 11" size paper, using a single method of fastening. Charts and schedules may be included in 11"x17" format. Proposals should not include any unnecessarily elaborate or promotional materials.

2. Letter of Transmittal

The Letter of Transmittal shall be addressed to Venita Anderson, Senior Contract Administrator and must, at a minimum, contain the following:

- a. Identification of Offeror that will have contractual responsibility with the Authority. Identification shall include legal name of company, corporate address, telephone and fax number, and email address. Include name, title, address, email address and telephone number of the contact person identified during period of proposal evaluation.
- b. Identification of all proposed subcontractors including legal name of company, whether the firm is a Disadvantaged Business Enterprise (DBE), contact person's name and address, phone number and fax number, and email address; relationship between Offeror and subcontractors, if applicable.
- c. Acknowledgement of receipt of all RFP addenda, if any.
- d. A statement to the effect that the proposal shall remain valid for a period of not less than 180 days from the date of submittal.
- e. Signature of a person authorized to bind Offeror to the terms of the proposal.
- f. Signed statement attesting that all information submitted with the proposal is true and correct.
- g. Identification of Offerors preferred project, if Offeror is proposing on both projects.

3. Technical Proposal

- a. Qualifications, Related Experience and References of Offeror

This section of the proposal should establish the ability of Offeror to satisfactorily perform the required work by reasons of: experience in performing work of a similar nature; demonstrated competence in the services to be provided; strength and stability of the firm; staffing capability; work load; record of meeting schedules on similar projects; and supportive client references.

Offeror to:

- (1) Provide a brief profile of the firm, including the types of services offered; the year founded; form of the organization (corporation, partnership, sole proprietorship); number, size and location of offices; and number of employees.
- (2) Provide a general description of the firm's financial condition and identify any conditions (e.g., bankruptcy, pending litigation, planned office closures, impending merger) that may impede Offeror's ability to complete the project.
- (3) Describe the firm's experience in performing work of a similar nature to that solicited in this RFP, and highlight the participation in such work by the key personnel proposed for assignment to this project.
- (4) Identify subcontractors by company name, address, contact person, telephone number, email, and project function. Describe Offeror's experience working with each subcontractor.
- (5) Identify all firms hired or retained to provide lobbying or advocating services on behalf of the Offeror by company name, address, contact person, telephone number and email address. This information is required to be provided by the Offeror immediately during the evaluation process, if a lobbyist or advocate is hired or retained.
- (6) Provide as a minimum three (3) references for the projects cited as related experience, and furnish the name, title, address, telephone number, and email address of the person(s) at the client organization who is most knowledgeable about the work performed. Offeror may also supply references from other work not cited in this section as related experience.

b. Proposed Staffing and Project Organization

This section of the proposal should establish the method, which will be used by the Offeror to manage the project as well as identify key personnel assigned.

Offeror to:

- (1) Identify key personnel proposed to perform the work in the specified tasks and include major areas of subcontract work. Include the person's name, current location, proposed position for this project, current assignment, level of commitment to that assignment, availability for this assignment and how long each person has been with the firm.
- (2) Furnish brief resumes (not more than two [2] pages each) for the proposed Project Manager and other key personnel that includes education, experience, and applicable professional credentials.
- (3) Indicate adequacy of labor resources utilizing a table projecting the resource allocation to the project by individual task.
- (4) Include a project organization chart, which clearly delineates communication/reporting relationships among the project staff.
- (5) Include a statement that key personnel will be available to the extent proposed for the duration of the project acknowledging that no person designated as "key" to the project shall be removed or replaced without the prior written concurrence of the Authority.

c. Work Plan

Offeror should provide a narrative, which addresses the Scope of Work, and shows Offeror's understanding of Authority's needs and requirements. If the offeror wishes to propose on both projects, a separate work plan shall be prepared, for each project.

Offeror to:

- (1) Describe the approach to completing the tasks specified in the Scope of Work. The approach to the work plan shall be of such detail to demonstrate the Offeror's ability to accomplish the project objectives and overall schedule.
- (2) Outline sequentially the activities that would be undertaken in completing the tasks and specify who would perform them.
- (3) Furnish a project schedule for completing the tasks in terms of elapsed weeks.

- (4) Identify methods that Offeror will use to ensure quality control as well as budget and schedule control for the project.
- (5) Identify any special issues or problems that are likely to be encountered in this project and how the Offeror would propose to address them.
- (6) Offeror is encouraged to propose enhancements or procedural or technical innovations to the Scope of Work that do not materially deviate from the objectives or required content of the project.

d. Exceptions/Deviations

State any technical and/or contractual exceptions and/or deviations from the requirements of this RFP, including the AUTHORITY's technical requirements and contractual terms and conditions set forth in the Scope of Work (Exhibit A) and Proposed Agreement (Exhibit B), using the form entitled "Proposal Exceptions and/or Deviations" included in this RFP. This Proposal Exceptions and/or Deviations form must be included in the original proposal submitted by the Offeror. If no technical or contractual exceptions and/or deviations are submitted as part of the original proposal, Offerors are deemed to have accepted the AUTHORITY's technical requirements and contractual terms and conditions set forth in the Scope of Work (Exhibit A) and Proposed Agreement (Exhibit B). Offerors will not be allowed to submit the Proposal Exceptions and/or Deviations form or any technical and/or contractual exceptions after the proposal submittal date identified in the RFP. Exceptions and/or deviations submitted after the proposal submittal date will not be reviewed by AUTHORITY.

All exceptions and/or deviations will be reviewed by the AUTHORITY and will be assigned a "pass" or "fail" status. Exceptions and deviations that "pass" do not mean that the AUTHORITY has accepted the change but that it is a potential negotiable issue. Exceptions and deviations that receive a "fail" status means that the requested change is not something that the AUTHORITY would consider a potential negotiable issue. Offerors that receive a "fail" status on their exceptions and/or deviations will be notified by the AUTHORITY and will be allowed to retract the exception and/or deviation and continue in the evaluation process. Any exceptions and/or deviation that receive a "fail" status and the Offeror cannot or does not retract the requested change may result in the firm being eliminated from further evaluation.

4. Cost and Price Proposal

Offerors are asked to submit only the technical qualifications as requested in the RFP. No cost proposal or work hours are to be included in this phase of the RFP process. Upon completion of the initial evaluations and interviews, if conducted, the highest ranked Offeror will be asked to submit a detailed cost proposal and negotiations will commence based on both the cost and technical proposals.

5. Appendices

Information considered by Offeror to be pertinent to this project and which has not been specifically solicited in any of the aforementioned sections may be placed in a separate appendix section. Offerors are cautioned, however, that this does not constitute an invitation to submit large amounts of extraneous materials. Appendices should be relevant and brief.

B. FORMS

1. Campaign Contribution Disclosure Form

In conformance with the statutory requirements of the State of California Government Code Section 84308, part of the Political Reform Act and Title 2, California Code of Regulations 18438 through 18438.8, regarding campaign contributions to members of appointed Board of Directors, Offeror is required to complete and sign the Campaign Contribution Disclosure Form provided in this RFP and submit as part of the proposal.

This form **must** be completed regardless of whether a campaign contribution has been made or not and regardless of the amount of the contribution.

The prime contractor, subconsultants, lobbyists and agents are required to report all campaign contributions made from the proposal submittal date up to and until the Board of Directors makes a selection.

Offeror is required to submit only **one** copy of the completed form(s) as part of its proposal and it must be included in only the **original** proposal.

2. Status of Past and Present Contracts Form

Offeror shall complete and sign the form entitled "Status of Past and Present Contracts" provided in this RFP and submit as part of its proposal. Offeror shall identify the status of past and present contracts where the firm has either provided services as a prime vendor or a subcontractor during the past five (5) years in which the contract has been the subject of or may be involved in litigation with the contracting authority. This includes, but is not

limited to, claims, settlement agreements, arbitrations, administrative proceedings, and investigations arising out of the contract. Offeror shall have an ongoing obligation to update the Authority with any changes to the identified contracts and any new litigation, claims, settlement agreements, arbitrations, administrative proceedings, or investigations that arise subsequent to the submission of Offeror's proposal.

A separate form must be completed for each identified contract. Each form must be signed by the Offeror confirming that the information provided is true and accurate. Offeror is required to submit one copy of the completed form(s) as part of its proposals and it should be included in only the original proposal.

3. Proposal Exceptions and/or Deviations Form

Offerors shall complete the form entitled "Proposal Exceptions and/or Deviations" provided in this RFP and submit it as part of the original proposal. For each exception and/or deviation, a new form should be used, identifying the exception and/or deviation and the rationale for requesting the change. Exceptions and/or deviations submitted after the proposal submittal date will not be reviewed nor considered by the AUTHORITY.

SECTION III: EVALUATION AND AWARD

SECTION III. EVALUATION AND AWARD

A. EVALUATION CRITERIA

The Authority will evaluate the offers received based on the following criteria:

1. Qualifications of the Firm 25%

Technical experience in performing work of a closely similar nature; strength and stability of the firm; strength, stability, experience and technical competence of subcontractors; assessment by client references.

2. Staffing and Project Organization 40%

Qualifications of project staff, particularly key personnel and especially the Project Manager; key personnel's level of involvement in performing related work cited in "Qualifications of the Firm" section; logic of project organization; adequacy of labor commitment; concurrence in the restrictions on changes in key personnel.

3. Work Plan 35%

Depth of Offeror's understanding of Authority's requirements and overall quality of work plan; logic, clarity and specificity of work plan; appropriateness of resource allocation among the tasks; reasonableness of proposed schedule; utility of suggested technical or procedural innovations.

B. EVALUATION PROCEDURE

An evaluation committee will be appointed to review all proposals received for this RFP. The committee is comprised of Authority staff and may include outside personnel. The committee members will evaluate the written proposals received for each project. Each member of the evaluation committee will then evaluate each proposal using the criteria identified in Section III, Paragraph A, to arrive at a "score" for each proposal. Based on the scores, a list of Offeror's within a competitive range will be developed, for each project, based upon the totals of each committee member's score for each proposal.

During the evaluation period, the Authority may interview some or all of the proposing firms. The Authority has established January 15 and 16, 2019, as the date to conduct interviews. All prospective Offerors are asked to keep this date available. No other interview dates will be provided, therefore, if an Offeror is unable to attend the interview on this date, its proposal may be eliminated from further discussion. The interview may consist of a short presentation by the Offeror after which the evaluation committee will ask questions related to the firm's proposal and qualifications.

At the conclusion of the evaluation process, the evaluation committee will rank proposals and will recommend to the Regional Planning and Highways (RPH) Committee, the Offeror(s) with the highest ranking for each project. The RPH Committee (s) will review the evaluation committee's recommendation and forward its recommendation to the Board of Directors for final action.

C. AWARD

The Evaluation Committee will select a firm to recommend to the Authority's Board of Directors. At the same time the recommended Offeror will be asked to submit a sealed price proposal. In conjunction with its action of selecting a firm, the Authority's Board of Directors will authorize staff to negotiate a contract price and other terms and conditions. The Board will also grant staff the ability to terminate negotiations with the selected Offeror if no satisfactory agreement can be reached and to begin negotiations with the next highest-ranked Offeror until a satisfactory agreement has been achieved.

Authority intends to award two contracts as a result of this procurement: one each to intelligent transportation systems and traffic engineering services. However, the Authority reserves the right to award its total requirements to one Offeror or to apportion those requirements among several Offerors as the Authority may deem to be in its best interest. In addition, negotiations may or may not be conducted with Offerors; therefore, the proposal submitted should contain Offeror's most favorable terms and conditions, since the selection and award may be made without discussion with any Offeror.

The selected Offeror will be required to submit to an audit of its financial records to confirm its financial stability and the Offeror's accounting system.

D. THE SELECTANT OFFEROR WILL BE REQUIRED TO SUBMIT TO THE AUTHORITY'S ACCOUNTING DEPARTMENT A CURRENT IRS W-9 FORM PRIOR TO COMMENCING WORK.

E. NOTIFICATION OF AWARD AND DEBRIEFING

Offerors who submit a proposal in response to this RFP shall be notified via CAMM NET of the contract award. Such notification shall be made within three (3) business days of the date the contract is awarded.

Offerors who were not awarded the contract may obtain a debriefing concerning the strengths and weaknesses of their proposal. Unsuccessful Offerors, who wish to be debriefed, must request the debriefing in writing or electronic mail and the Authority must receive it within three (3) business days of notification of the contract award.

EXHIBIT A: SCOPE OF WORK

**SCOPE OF WORK
Katella Avenue and Main Street Corridors
TRAFFIC SIGNAL SYNCHRONIZATION PROJECTS**

As part of the Regional Traffic Signal Synchronization Program, the Orange County Transportation Authority (Authority or OCTA) desires to provide the components necessary to improve and enhance signal timing, synchronization, and coordinated operations for all signalized intersections on the Katella Avenue Corridor (PROJECT1) and the Main Street Corridor (PROJECT2).

OCTA is serving as lead agency for PROJECT1 for the eight participating local agencies, Anaheim, Cypress, Garden Grove, Los Alamitos, Orange, Stanton, Villa Park and the County of Orange (Participating Agencies herein after Parties and individually as Party) and Caltrans; and, OCTA is serving as lead agency for PROJECT2 for the three participating cities, Irvine, Orange, and Santa Ana (Participating Agencies herein after Parties and individually as Party) and Caltrans.

Caltrans is not a participant in the Cooperative Agreement for PROJECT1 and/or PROJECT2. Caltrans is considered a line item expense for construction and implementation purposes. This SOW includes all written text of general provisions, and respective special provisions, agency standards, and tables and maps for showing locations for construction for both PROJECT1 and PROJECT2.

I. DESCRIPTION – GENERAL PROVISIONS - PROJECT1 and PROJECT2

PROJECT1 and PROJECT2, respectively, shall each be completed in two distinct sequential phases; Primary Implementation (PI) followed by On-going Operations and Maintenance (O&M), respectively. For purposes of scope of work, PROJECT1 and PROJECT2 shall be referred to as PROJECT. Each PROJECT1 and PROJECT2 will be awarded as separate contracts.

The CONSULTANT assigned the Contract for this PROJECT shall complete the PI phase within one year of Notice to Proceed. For the purposes of this SOW, the words Contractor, Consultant, and CONSULTANT are interchangeable. Upon acceptance of the PI phase by the Authority and a Notice to Proceed into O&M phase, CONSULTANT shall then and only then commence the O&M phase. O&M phase shall have a duration of 24 months. PROJECT Closeout of the PROJECT length shall occur upon payment of retention, receipt of Final Report, and acceptance by all Parties and Caltrans.

PROJECT SPECIFICS

- Project Traffic Forum (PTF) shall refer to all Parties, Caltrans, and OCTA.
- OCTA is designated as the LEAD or IMPLEMENTING AGENCY.
 - Primary Authority Project Manager (APM) for this PROJECT is the Project Manager of the Regional Traffic Signal Synchronization Program (RTSSP) for OCTA (Project Manager III – Regional Modeling – Traffic Operations)
 - Secondary Authority Project Manager (APM) for this PROJECT is the Principal Transportation Analyst assigned to Traffic Operations staff of the Regional Modeling – Traffic Operations Section.
- A Party shall not directly contact or direct CONSULTANT in any endeavor on this PROJECT unless approved by the APM or designee.
- CONSULTANT shall not suggest or modify any part of this Scope of Work to a Party or Caltrans for any endeavor, purpose, and/or enhancements on PROJECT unless approved

by the APM or designee. Non-approved changes to SOW and appendices may be out of scope and any and all related expenses are 100% the responsibility of the CONSULTANT and the receiving Party.

II. PARTICIPANT AGENCY INTERSECTIONS

Traffic Signals to be synchronized along the corridor are controlled by the individual Party owners. The Parties along the corridor utilize several different types of controller assemblies, including NEMA TS-1 or TS-2, type 1 and 2; Type 170/33X; and, Type 2070/33X. Controller Unit types employed within the assemblies include various proprietary pre Advanced Transportation Controllers (ATC) each having their own respective firmware/operating systems and characteristics; and, some of the newer ATC which is now a requirement of the Comprehensive Transportation Funding Program (CTFP) Guidelines. The respective agencies also interface these controllers utilizing unique Advanced Transportation Management Systems (ATMS) or Master Central Systems and are planning on expanding/extending those systems onto the corridor; Econolite Centracs™, Econolite Aries™, McCain QuicNet PRO/Trac™ or TRANSPARITY®, Intelight MAXVIEW™, MIST, and Siemens TACTICS™. Per CTFP Guidelines, all ATMS to be installed or modified must comply with all applicable NTCIP (national and Orange County) standards for communications and be Center to Center ready or functional as specified.

The main goals and objectives of this project are:

- Perform an operations and timing analysis to develop and implement optimized traffic signal synchronization timing, including the development and implementation of timing plans at all signalized intersections;
- Determine and make recommendations for new or modifications to existing traffic signal equipment and infrastructure related solely to improve and/or enhance synchronization and overall corridor operational efficiencies; and
- Upon approval by the owning AGENCY and OCTA, procure, furnish and install all approved infrastructure improvements for PROJECT.

The implementation of the new optimized timing and infrastructure improvements will:

- Provide signal synchronization timing for prevailing traffic patterns and common zones of operations;
- Maximize the number of successive intersections traversed on a green indication vs. those stopped by a red indication (Greens per Red);
- Reduce stops, travel times, and overall delay;
- Reduce emissions and Green House Gases (GHG); and

Provide a continuing foundation for interjurisdictional cooperation in coordination of interactive but autonomous local AGENCY traffic signal systems.

The following specific tasks are required to be performed in the course of providing service for the traffic signal coordination project. Tasks are listed in sequential order for clarity. However, some tasks may run concurrently or commence prior to the order listed.

III. PRIMARY IMPLEMENTATION PHASE

The Primary Implementation (PI) Phase is the initial phase lasting approximately one year to design, engineer, procure, and install the infrastructure; and, analyze existing traffic conditions to

provide and implement new optimized traffic signal coordination timing. This shall be followed by a fine – tuning period, and all other aspects related to the new optimized traffic signal synchronization/coordinated operations along the Katella Avenue and Main Street RTSSP corridors. The PI Phase begins upon signature of the contract and Notice of Award with OCTA's CAMM Division. Contract start time shall be when OCTA issues the Notice to Proceed (NTP) via an e-mail from the APM. Only work performed, and hours charged associated with the PI Phase may occur within this time period.

Task 1: Project Management

Project Management is ongoing throughout the duration of the PROJECT. This task includes day-to-day project management, such as meetings, progress reports, tracking of schedules, invoicing, and overall administration of the PROJECT. The project management team, comprised of Authority personnel including internal consulting support firms, and the Traffic Engineering Consultant (CONSULTANT), acts as an extension of the Authority staff and will act in that capacity at meetings with the respective corridor Parties. The following list is a minimum of what is required of this task:

1. The selected CONSULTANT for PROJECT shall prepare a detailed Project Management Plan (PMP) that includes budget and schedule estimates for all of the tasks described in the SOW, providing specific project milestones for review and approval by the APMs, or designated representative. These items shall be detailed and include expected meetings, activities (by work task, whether performed by CONSULTANT team or by others), start dates, activity durations, product submittal dates, relationships among work tasks (including critical path items), and a detailed GANT flow chart for the project tasks, and float time. The PMP shall also define the roles of the Project Manager, Project Assistant(s), and Project Manager's Reporting Contact Person, as well as their corresponding contact information. CONSULTANT shall finalize the report based on comments received from the project sponsor, other involved Parties, and APM and/or Authority staff.
2. CONSULTANT shall lead two distinct Project Kick-Off Meetings; one with the APM and internal staff and the second with all Parties.
 - a. The first meeting will be to kick-off the project with the APM; establish communication channels and protocols; discuss the Scope of Work, project schedule, and project budget; gather available information; and obtain a thorough understanding of the goals for the project. Specific topics to discuss include data collection needs, specific Traffic Signal Timing Optimization software programs specified herein, and specific construction items and procurement methodologies; intent of the original application and allowances or variants in design engineering, installation, and implementation; and PROJECT schedule. Administrative items to be discussed will include contact persons and secondary contacts for different functions of the project. Invoicing and reporting requirements on invoices with templates will be provided to consultant with explanations on how to provide monthly information on prime, sub-consultant, and vendor expenses on the invoice submittal.
 - b. The second stage of the meeting will be the PROJECT Traffic Forum (PTF); the CONSULTANT, APM, and Party representatives that have signalized intersections along the PROJECT. Data collection needs and requirements shall be outlined to the involved Parties. CONSULTANT shall notify each AGENCY of the type of work, and when the work is to be performed within that AGENCY. CONSULTANT shall notify each participating

AGENCY any and all documents that need to be produced pertaining to the construction of the facilities and the coordination, including but not limited to: as-built drawings, new Plans, Specifications, and Estimates (PS & E) for new construction to be built as part of this project, Intersection Timing Charts, Existing Synchro Models, Aerial photos, Average Daily Traffic (ADT) and Turning Movement Counts (TMC) data, etc. The APM and staff will assist in this endeavor to facilitate time constraints. OCTA will provide existing base models for SYNCHRO Ver. 9.0 (or Ver. 10.0), if available.

It is the sole responsibility of the CONSULTANT to create and calibrate the model to existing conditions.

3. CONSULTANT shall lead project meetings as directed by the Authority to include the CONSULTANT staff, APM, and other project related participants. The purpose of these meetings will be to ensure that proper input is being received and included in the work effort by CONSULTANT and the Authority.
 - a. CONSULTANT shall prepare agendas, provide status updates, discuss the progress and direction of the work, and provide notes of these meetings as directed by the Authority to all participants. These meetings will also serve to provide feedback between the Project Traffic Forum and CONSULTANT regarding specific issues of the effort, including facilitating the development of measures of effectiveness, construction alternatives and mitigations, and as specified in later tasks.
4. CONSULTANT shall attend and be an active presenter at the Authority-led Traffic Forum, updating the group on PROJECT status, effort, issues, mitigations, and other items as determined with and agreed to by APM. The Traffic Forum is envisioned to further communication and information exchange between the Authority and the local AGENCIES regarding signal coordination and Intelligent Transportation Systems (ITS). The Traffic Forum Meetings are held within the first two weeks of February and late September/early October, respectively. Special Traffic Forum meetings may also be scheduled in between the regular meetings due to circumstance or by request of the Board.
5. CONSULTANT shall attend and present at up to four (4) Board/Committee meetings to summarize the findings. CONSULTANT shall attend and present at other Party committee meetings, and intergovernmental meetings as requested by Party(s) and directed and approved by the APM. The purpose of these meetings may be to inform attendees about the project, signal synchronization in general, the PROJECT potential strategies, meaningful benefits in savings to the public, and any other relevant information deemed useful.
 - a. At a minimum, a total of 12 meetings (this may be adjusted upon agreement of the PTF), 2 Board, 2 Committee, and 8 PTF and other meetings shall be used for scheduling and budgeting purposes.
6. CONSULTANT shall keep a running record of project cost broken down by agency. This information will be used by Authority to bill Agencies for their respective project match. This information may be requested by Authority at any time.
7. CONSULTANT shall also keep a running record of all scope changes and/or any deviations from awarded contract. This information will be used by Authority to request for Scope Changes at the Semi-Annual Review (SAR). This information may be requested by Authority at any time.

8. CONSULTANT shall submit monthly invoices in the provided format. Each invoice shall include a detailed progress report for the reporting month, all third-party invoices, schedule, and other backup documentation as requested by APM.

Deliverables – Task 1:

1. Lead a 2 Stage Project Kick-off Meeting(s) and prepare agendas and meeting materials.
2. Detailed Project Management Plan – one copy for each participating party.
3. Monthly progress reports including detailed status of the work effort and updated schedule.
 - a. Consultant shall also submit an informal weekly summary of work performed in text, rich text, or MS Word formats for OCTA internal usage.
 - b. Monthly progress reports to AGENCIES shall be provided
 - i. Monthly invoices to OCTA shall include monthly progress reports
4. Attend Monthly PTF meetings and prepare meeting materials, including agenda, action items, graphics, presentation aides, and notes/minutes.
5. Electronic versions of all data files as directed by Authority.
6. Graphics and presentation aides required for all meetings.
7. All documents provided in electronic form should be those currently used by OCTA: MS Office Professional 2013 format, and Adobe Acrobat portable document format (pdf) files.
8. All electronic data produced for this project shall be provided on CD-R, Flash Media, DVD-R or similar hardware non-volatile memory device.
9. Monthly invoices shall include all third party invoices and other supporting documentation as requested by Authority.

All correspondence shall include as a recipient the project mailbox at OCTA:

Katella.TSSP@octa.net or Main.TSSP@octa.net. In addition, during the course of the project, SharePoint and FileZilla systems managed by OCTA, may be employed for file transfer, etc. Other similar systems like Dropbox or Consultant's own file transfer systems may also be employed.

Task 2: Data Collection

CONSULTANT shall collect the following data necessary to thoroughly understand existing traffic conditions in the study area and be able to develop optimal time-of-day traffic signal coordination plans, if applicable.

1. From the involved AGENCIES and/or Authority, CONSULTANT shall collect existing timing charts/sheets, existing coordination plans, traffic as-built drawings, aerial photos, maps, traffic collision data as available, and collision diagrams for the study intersections, if available. CONSULTANT shall also collect any of the shelf plans for construction and all traffic signal coordination/synchronization related Plans, Specifications, and Estimates (PS & E) for the corridor. CONSULTANT, if requested by the involved Party, will provide their own staff to review available records/plans and request copies of needed records/plans with minimal disruption to the involved Party.
2. From the involved AGENCIES, CONSULTANT shall collect signal timing and signal priority preferences, including, but not limited to, those related to pedestrian and bicycle timing, phase sequence modifications and preferences, and special operations such as conditional service, coordination preferred phase re – service, and ring – barrier logic, as well as the timing optimization software preference.
3. CONSULTANT shall conduct seven-day 24-hour machine counts along each 1 mile segment of PROJECT. Additionally, CONSULTANT shall collect 24-hour vehicle classification counts

using a machine at all ADT locations on PROJECT to determine heavy vehicle (Truck) percentage information. Data obtained from Saturday and Sunday counts will determine the necessity of weekend signal timing. All count locations will be approved by the PTF prior to collection.

4. CONSULTANT shall conduct weekday and weekend peak period turning movement counts (TMC) at each and every one of the PROJECT signalized intersections (see List of Intersections and Project Map with Construction Notes for specific project), including pedestrian and bicycle counts. No other types of TMC classification shall be necessary. Weekday counts shall be conducted for two hours of each peak period (AM, mid-day, and PM). After analyzing the seven-day 24-hour machine counts, weekend TMC counts shall be conducted at specific intersections, with approval of APM and PTF, of the PROJECT signalized intersections for a single four hour Saturday mid-day peak period. For intersections with more than 2 through lanes in any of the approaches, a minimum of 2 people per intersection is required. Video data collection may be utilized for this function and will negate the personnel requirements.
 - a. Any and all modes of vehicles and/or pedestrians that do not clear the intersection for counting purposes during the count time period shall also be counted as part of the quarter hour period in which they occur. *(This means that if a queue develops that is not served in one cycle and the counting period is ending, the number of vehicles remaining in the queue shall be included in that 15 minute period. They shall not be included in the succeeding 15 minute period).* CONSULTANT shall acknowledge and enforce this requirement and shall inform all vendors utilized of same.
 - b. TMCs that are ≤ 2 years of age, and supplied by an alternate viable source, for an intersection, may be used in lieu of a manual count. Per the CTFP Guidelines and the precepts of the Measure M2 Ordinance, TMC's supplied by a PARTY cannot be used as a credit against match funding requirements.
5. All counts shall be summarized in MS Office 365 format. Copies of the raw data count sheets will be provided to each involved Party and APM. (See CTFP Guidelines for ROADS requirements)

Deliverables – Task 2:

1. Report summarizing data collection effort, including intersection turning counts, traffic collision analysis, current traffic signal timing patterns, and drawings of intersection features.
2. Electronic versions of all data files
3. Raw video footage of intersections receiving Video Counting to OCTA only.
 - a. Raw video of local agency intersections shall be made available to the owning agency upon request at the PROJECT kickoff meeting No. 2. Any labor or time required to crop or trim footage to specific agency locations shall be borne by the CONSULTANT. Any requests subsequent to that meeting will be at Agency expense.
4. Deliverables 1,2, and 3a. to AGENCIES shall be limited to political boundaries.

Task 3: Field Review, Plans Specifications and Estimates, Design Standards and Requirements

1. CONSULTANT shall review the geometric layout, existing traffic signal equipment, and signal synchronization related infrastructure to identify any deficiencies for each intersection and along the whole corridor/route. The review shall include an assessment of the existing intersection geometry, traffic conditions, traffic signal control equipment, and telemetry/interconnect facilities along the corridor and of each intersection using observation, available as-built plans, consultation with the local AGENCIES, and Party supplied aerial photos. CONSULTANT shall use a standard field form developed by CONSULTANT for this review that accounts for each piece of intersection data required. With permission of the local AGENCIES, CONSULTANT shall inspect the interior of each traffic control cabinet, inspect the telemetry systems and determine their respective condition and make recommendations for equipment upgrades. Before and After photos of each cabinet shall be included with the field review inventory. If existing as part of the PROJECT APPLICATION, before photos may be requested from AUTHORITY/AGENCIES. CONSULTANT is advised that certain infrastructure and equipment upgrades have been identified previously by the AGENCIES and reviewed by the APM and shall be a requirement of this project. These items are identified subsequently within this document.
2. CONSULTANT shall also include an identification of all planned and programmed improvements (widening projects, intersection improvements, etc.) on the study corridor. The identification of these projects should be at minimum a list summarizing all improvements.
3. Key components of the corridor review shall include, at minimum, the following:
 - a. Corridor lane configurations and lane widths;
 - b. Existing street and lane geometries, curbs, bus turnouts, and medians;
 - c. Upcoming improvements to the corridor;
 - d. All Traffic Control Devices related to traffic signal operations at all PROJECT intersections, approaches to cross streets, and along PROJECT corridor;
 - e. Traffic signal control device information, such as type of device, brand and make, condition of equipment. Intersection Photographic Documentation Log shall be required;
 - f. Existing signal operation characteristics – signal phasing, cycle lengths, phase sequence alteration, and protective-permissive, etc.;
 - g. Crossing Arterial Coordination Operations
 - h. Crossing Arterial or Street with adjacent intersections within 2700 feet of PROJECT unless specifically made not part of the approved, project specific, supplemental application by OCTA.
 - i. Existing controller and telemetry/interconnect equipment, if any. Note if to be reused;
 - j. Existing time-referencing setup, if any;
 - k. Existing Central Master Equipment, if any. Note if to be reused and modified, salvaged and/or new;
 - l. Existing Field Master Equipment, if any. Note if to be reused and modified, salvaged and/or new;
 - m. Open each controller cabinet and take digital photos of all equipment inside before and after the installation of new equipment.
 - n. Note any deficiencies of traffic control equipment at each intersection; and
 - o. Note the maintenance condition or existence of the traffic signal equipment, controllers and synchronization related infrastructure.

CONSULTANT shall also investigate factors that are expected to affect signal progression including, but not limited to: intersections with high pedestrian or bicyclist volumes; over-saturated intersections; uneven lane distribution; high volumes of trucks and buses; high-volume unsignalized intersections, including interchanges; parking maneuvers; presence and location of bus stops; differing signal timing patterns among AGENCIES; etc.

With the view of assisting, enhancing, and improving the traffic operations along this corridor, CONSULTANT shall identify any deficiencies of the existing traffic signal control and telemetry infrastructure and geometric layout, and provide recommendations towards simple solutions that may be implemented to correct such deficiencies. CONSULTANT shall prepare a report summarizing the findings of the field review.

If deemed necessary by the APM or through request of a Party through the APM, CONSULTANT shall prepare any design construction documents in the form of sketches to full-fledged Plans, Specifications, and Estimates (PS & E). CONSULTANT shall prepare such plans for use in the construction of the PROJECT per each respective PARTY'S standards. CONSULTANT shall supply such documentation to the APM and the Party owning the affected facility for approval prior to commencing any construction. Construction documents will be used during the course of construction by Party for inspection services. CONSULTANT shall modify documents subject to approved construction completion to owning Party as an As – Built document. Cost for production, reproduction, inspection services, and as – built services are part of the Full Fixed Price of the Contract and no additional compensation shall be allowed, therefore.

CONSULTANT will be required to design, procure, install, construct, and implement all desired components of the PROJECT as described in this document. CONSULTANT shall negotiate with OCTA and AGENCIES at the beginning of PROJECT to determine what actually shall be installed and implemented to maintain budgetary control.

CONSULTANT, if required to install or replace any traffic signal control equipment whether local intersection or central systems, shall exercise due diligence in the determination of what types of systems are to be installed.

Deliverables – Task 3:

1. Report documenting:
 - a. The field review (including before and after photo logs)
 - b. Recommended mitigations to perceived problems
2. Electronic versions of the report and all data files
3. Necessary Construction Documentation

Task 4: 'Before' Study

CONSULTANT shall conduct a 'Before' field study report representative of the times and days for which synchronization plans will be developed. The report shall identify Measures of Effectiveness (MOE) to evaluate the effects of the synchronization plans. MOE's will likely include traffic flow, travel time, average speed, number of stops per mile, number of intersections traversed on green vs. stopped by red (Greens per Red) (*note: Average Speed, Stops per Mile, and Greens per Red are the new OCTA MOE, Corridor Synchronization Performance Index (CSPI)*), fuel consumption reduction, pollution reduction, and other pertinent items. The CONSULTANT shall include the CSPI as part of the MOE's as they are easily identifiable by lay persons relevant to demonstrating corridor improvements. The identified MOE's shall be compiled for the corridor using the floating

car method and from Synchro 10.0 and from Tru-Traffic Version 10.0. At least five (5) runs will be completed in each direction for each of the three weekday timing plans (a.m., midday, and p.m.), and at least five (5) runs will be completed in each direction during the Saturday midday plan. Number of runs shall be consistent for both directions and time periods. Based on engineering judgment and in conjunction with APM approval, CONSULTANT should subdivide the corridor into contiguous segments for the 'Before' and 'After' runs. CONSULTANT shall notify and receive approval from PTF on number of runs and contiguous segments to be accomplished.

Project travel-time data shall be collected using the floating car method, a laptop computer, a GPS receiver unit, and Tru-Traffic v 10.0, only.

The report shall address likely optimization strategies for signal synchronization, specifically focusing on how to consider PROJECT optimization: end – to – end vs. coordinated zones. Ideally, the analysis should include the floating car data and data collected as part of Task 2. However draft versions of the report can include previously collected traffic, travel time, or other data, if considered relevant and available. The evaluation report shall provide a very good understanding of traffic patterns on PROJECT throughout the weekdays and throughout the weekend. Tru-Traffic Version 10.0 has the OCTA Corridor Synchronization Performance Index (CSPI) calculation formulas available for use as well as the calculations for the latest emissions for GHG and other Measures of Effectiveness (MOE). These functions shall be utilized by the CONSULTANT in the draft preliminary, draft final and final reports as specified herein.

The following modules shall be downloaded and installed as part of Tru-Traffic prior to the start of the 'Before' Runs:

- OCTA CSPI.urb,
- Emissions using CMEM for Vehicle Category 4 rev2.urb
- FuelConsumption&Emissions_mph.urb,
- CumulativeAvgSpeedLOS_mph.urb

The CONSULTANT shall perform due diligence with regard to existing and proposed timing operations on arterials that intersect with the PROJECT.

CONSULTANT shall prepare a memorandum and present the findings to the Authority outlining the findings of the 'Before' field study. The Authority may request a presentation on the traffic patterns on PROJECT Scope and possible synchronization strategies to address the traffic patterns (optimizing the full corridor versus optimizing segments identified with natural traffic breaks) to provide direction on the preferred signal timing strategy. Any requested presentation shall include as much of the turning movement, 24-hour machine counts, travel time, earlier city counts, etc. as available. CONSULTANT shall finalize the memorandum based on comments received from the Authority Project Manager and other involved AGENCIES and after incorporating the full set of data collected by CONSULTANT as part of Task 2.

Deliverables – Task 4:

1. A memorandum documenting the results of the 'Before' study is to be distributed to the APM and AGENCIES as a discussion item. More detailed analysis of project results shall be included in Task 8: Project Report.
2. Electronic versions of all data files and memorandum to all PTF members.

Task 5: Signal Timing Optimization and Implementation

Task 5.A General:

CONSULTANT shall work with the APM and AGENCIES to develop a model of the study area and calibrate the model based on field observations of existing conditions. Signal synchronization optimization shall be conducted in Synchro 10.0. The CONSULTANT must be cognizant of the version of Synchro that the receiving Party is using and provide any files in that version. The corridor model must be consistent with all aspects and seamlessly interface with the County Wide Synchro Network as administered by the GIS/ROADS database. The PROJECT shall be developed with Synchro 10.0 and shall be easily imported and/or exported to and from those programs' respective database. Node or intersection numbering scheme must remain consistent with ROADS. Any modifications, additions, or removal of intersections or roadway segments (nodes or links) must be approved by the Section Manager III – Planning/GIS, Planning and Analysis for OCTA. CONSULTANT shall calibrate the model based on travel time, delay studies, field observations of queue lengths, and saturation flows for heavy movements at key intersections. It is recommended that the CONSULTANT utilize the Bing™ Map feature from Synchro 10 in the development of the base layout files. Tru-Traffic Software version 10.0 or latest release should be used, subsequent to initial optimization, to augment and enhance green band throughput (offset, splits, phase rotation); and, to incorporate specific off band coordinated traffic platoons into the corridor operation as required by data analysis and field observations.

The CONSULTANT may use their own numbering scheme for use in Synchro analysis if the volume balancing and other factors becomes an issue with node numbering in regard to OCTA ROADS Database. If the CONSULTANT chooses to use this methodology, the requirement for submittal of the database in the ROADS format is still required. The extra node numbering used for volume balancing nodes and other factors must be removed upon final submittal of the Synchro document that will be incorporated into the ROADS database. These operations will be closely monitored and controlled through the APM and the Section Manager of the GIS department of Planning.

Task 5.B OPTIMIZATION

CONSULTANT shall evaluate signal timing and coordination parameters with consideration for the following:

Task 5B.1. Concept of Operations:

The CONSULTANT shall in concert with all PTF members, develop a Concept of Operations for all time periods including AM, MD, PM, Weekend, and FREE operational patterns or plans (CONOPS). CONOPS shall take into account how the traffic should flow optimally for all directions providing as many successive greens as possible to the motorist whether on the primary coordinated band or traversing from a primary coordinated band to another coordinated band or vice versa. Planned Stops will be allowed only as a last resort and must be approved by the APM, PTF, and finally the owning Party prior to implementation.

CONOPS shall take into account all special generators and known congestion points/areas such as freeway interchanges, schools, or shopping centers and analyze them for specific circulation flows and conditions that may require special plans or queue mitigation (flush) operations. For Diamond Interchanges, when possible, off ramp phase single entry operations coupled with

coordinated phase through band with offset off ramp band flows should be employed for both directions. Dependent on spacing between off ramp intersections, dual entry operations may be appropriate.

CONSULTANT may utilize video and/or Bluetooth or combination of technologies to perform an O and D analysis during peak periods to determine actual flow patterns. However, the objective to determine actual traffic flow patterns for band width and both coordinated street and cross street entry band offset requirements analysis shall be met. Analysis time periods shall be determined from the 24 hour ADT count data from Task 2.

CONSULTANT shall present from 2 to 3 timing plan operational scenarios dependent on coordinated and crossing arterial traffic conditions for timing plan implementation and the “when” “who” and “how”. These scenarios will be part of the initial presentation of the corridor existing conditions, proposed groupings and cycle lengths report.

Task 5B.2 Coordinated Optimized Traffic Signal Timing:

Based on a consensus developed from discussions of the scenarios presented and then approved by the PTF, the CONSULTANT shall prepare Coordinated Optimized Traffic Signal Timing Plans for all corridor intersections using:

- NEMA GAP style coordination shall be employed where possible using on street coordinated phase detection to allow the coordinated phase to gap out once the primary platoon has passed and the resulting straggler vehicles are out of the dilemma zone.
- Logic Sensor operations to enhance Time Clock Timing Plan/Pattern Selection
- Flow Interconnect using peer to peer communications and logic internal to the ATC
 - Free Operations only
- Modified Phase Sequence Rotation
- Lead/Lead
- Lead/Lag
- Lag/Lag
- Any combination of two concurrent left turn phases where a single phase is serviced twice in one cycle by either leading or lagging.
- Protected/Permissive operations
 - Phasing will be lead/lead only; or,
 - Flashing Yellow Arrow technique may be employed for lead/lag
 - Owning/Operating Party policy permits its use
- Harmonic cycling – double, half, third or other harmonic multiple,
- Other innovative techniques upon approval of the owning Party and APM
- Mitigate minor or non – coordinated phase delay
- Preferred Phase re-service any Phase/any Ring
 - By Pattern
 - By Phase Rotation/Sequence #
 - By Cycle Length
 - Ped Y/N

CONSULTANT will measure the saturation flow rates at key project intersections during one peak hour where the overall intersection volume-to-capacity ratio is greater than or equal to 0.8 as a calibration for the Synchro model. Timing parameters shall provide adequate crossing time to

accommodate pedestrians within the phase split. CONSULTANT shall take into consideration the pedestrian timing parameters used by the local Party on a case by case basis. Pedestrian Intervals shall be examined and retimed to current adopted standards by each respective Party. CONSULTANT should note that proposed new pedestrian timing standards have been approved at the Federal and State level. Additionally, new State standards have been adopted for yellow change intervals using the 85th percentile of a newly completed speed survey for a corridor rounded up to the nearest 5 mile an hour increment or the posted speed limit plus an additional 7 miles per hour (MPH) if over 30 MPH or an additional 10 MPH if posted 25 MPH or less. An inclusive table is provided in the latest 2014 edition of the CA MUTCD. AGENCIES must be contacted and provide policy and guidance to the CONSULTANT for calculations regarding these timing intervals.

CONSULTANT shall prepare excel tables for each intersection on the corridor for each Party showing both existing and proposed pedestrian walk, pedestrian clearance, yellow change, and all red clearance intervals based on Party preference and guidance. Timings will be used in optimized timings analysis and set on control systems in the field at implementation if not already set. Updated timing sheets will immediately be placed within the controller assembly and time/date stamped and signed by the City designate.

Task 5B.3. Crossing Arterial Operations

CONSULTANT shall endeavor to keep Crossing Arterial Operations intact when analyzing PROJECT intersections and shall use these intersections as anchor points for offset control. In the event that the cycle length must change, CONSULTANT shall coordinate such change with agencies and APM and shall incorporate cycle length and offset and possible split modifications to 1 – 3 intersections on either side of the PROJECT Crossing Arterial corridor intersections as agreed upon by the PTF and within budget.

Task 5B.4. Micro Simulation

CONSULTANT shall develop an operational model within SimTraffic Version 10. The operational analysis will be used to micro – simulate and analyze specific roadway segments with queuing, spill back, starvation, storage blocking, and other queuing interactions, and to analyze and mitigate the conditions discovered by CONSULTANT and/or APM and AGENCIES in field reviews.

Task 5B.5. Optimized Traffic Signal Coordination

CONSULTANT shall develop optimized signal timings using the results from Synchro/SimTraffic 10.0, in conjunction with Tru-Traffic version 10.0 or latest released version, and recommend any changes to the signal phasing at each signalized intersection that may improve the efficiency of operations. Output of the modeling software shall not be utilized without proper QA/QC. Engineering judgment shall be utilized to determine final operational parameters. The recommended signal timing plans shall be reviewed by the APM and local Party staff.

- CONSULTANT shall prepare, at minimum, three (3) timing plans for a typical weekday which consider the following peak periods: AM PEAK, MID-DAY PEAK, PM PEAK and one (1) timing plan for a typical Saturday/Sunday for a MID-DAY PEAK. Timing plans should be in both Synchro format and the preferred timing chart format of each local Party.

- CONSULTANT shall prepare, special plans for congestion mitigation based on scenarios approved by the PTF.

Time of Day/Day of Week (TOD/DOW) Timing Plan selection schedules shall be developed that reflect actual traffic conditions within contiguous segments or down to the individual intersection as necessary. The CONSULTANT, in cooperation with the APM, and upon concurrence of the Traffic Forum, shall develop a real time traffic responsive operations (TRO) program to facilitate timing plan selection based on data obtained from the PROJECT.

The program shall select the timing plans relative to volume, occupancy, speed, plus object logic gating code (if, then, else, etc.) and directional flows on a 24-hour/7 days per week schedule. All forms of detection for all modes of travel may be employed in this endeavor. Backup or alternate detectors and/ or static values may be utilized for individual failed system detectors. A library of timing plans shall be developed to facilitate this requirement. A static TOD/DOW schedule shall be developed and set ready as backup in case of catastrophic detection failures within the TRO program. A detection failure statement in the TRO coding shall trigger this backup schedule.

Upon approval of the optimized signal timings by the Authority and the cities, the CONSULTANT shall implement, or assist local AGENCIES staff in the implementation of new signal timings either through the central traffic signal system (if available) or direct implementation at the intersection controller units. CONSULTANT shall use existing traffic signal interconnection systems, where they exist, and, as a result of the inter-jurisdictional nature of the project, shall implement time-based signal coordination techniques across signals controlled by different AGENCIES.

As the project will be using time-based signal coordination, the CONSULTANT shall evaluate the current time-referencing of all traffic signal controllers and recommend a corridor-wide strategy to ensure that all traffic signal controllers are on synchronized time clocks linked to a master time source. CONSULTANT shall verify that all Central Master or Local Field Master, and/or Local Controller unit clocks are:

- operating properly and are synchronized;
- and that all clocks are referencing a Coordinated Universal Time (UTC) and the start for all cycle length calculation shall be 12:00 AM – Midnight.
 - Ex: If a Plan with a 100 second cycle starts at 3:15 in the afternoon it will calculate back to midnight as its starting point to see where it should be. If another Plan with a 100 second cycle starts at 3:22 in the afternoon adjacent to the Plan that started at 3:15, it will also calculate back to midnight. Both Plans are now in Synchronization as their respective Master Offset (T_0) is set at 12:00 AM.

CONSULTANT shall fine-tune, or assist local Party staff in the fine-tuning of, the new settings and timings. CONSULTANT shall fine-tune timings in the field and record all changes. Fine-tuning shall be conducted during times and days that are representative of the times and days for which coordination plans were developed.

CONSULTANT shall utilize Tru – Traffic Version 10.0 or later software on a laptop with appropriate GPS device and use the floating car method utilized in the PROJECT 'Before' Study to fine tune the corridor operation and verify integrity of system intersection clocks. Synchronized Video shall be used to compare actual conditions to anticipated conditions dictated by the Tru-Traffic time space diagram so that any anomalies may be corrected prior to 'After' Study tasks.

CONSULTANT shall prepare a memorandum detailing the signal timing optimization and implementation, including detail on the Tru-Traffic/OCTA CSPI and other MOE's and Synchro/SimTraffic MOE results. CONSULTANT shall finalize the memorandum based on comments received from the PROJECT Party applicant or sponsor, the other involved AGENCIES, and the APM.

Deliverables – Task 5:

1. All optimized and synchronized traffic signal timing plans, including existing corridor conditions and improved corridor conditions customized per participating Party.
2. Concept of Operations Report including Scenarios Report.
3. Field implementation of optimized traffic signal plans for existing corridor conditions, including all required fine tuning and Traffic Responsive Operations parameters.
4. Evaluation, recommendation, and installation of a master synchronized time-referencing system.
5. Excel Files of pedestrian and vehicle clearance intervals
6. Electronic versions of files from all Traffic Signal Modeling Software programs used in PROJECT.
7. Electronic versions of all other data files and memorandums.
8. Memorandum documenting the signal timing optimization and implementation.
9. Deliverables of final plans of other participating neighbor Party to each participating Party for timing shall only be the coordinated timing intervals and time of day or TRO plans. And, they shall be limited to one to three signalized intersections on each side of their respective political boundaries.

Task 6: 'After' Study

The CONSULTANT shall conduct an 'After' field study representative of the times and days for which synchronization plans will be developed. The 'After' study must be conducted in the same manner and contain the same MOE's as the 'Before' study in order to evaluate the improvements of the synchronization plans. MOE's should be compiled for the optimized corridor using the floating car method output in Tru-Traffic and then from Synchro/SimTraffic 10.0. At least five (5) runs will be completed in each direction for each of the three weekday timing plans (a.m., midday, and p.m.), and at least five (5) runs will be completed in each direction during the Saturday midday plan.

Project travel-time data shall be collected using the floating car method, a laptop computer, a GPS receiver unit, and the methodologies and software to match the 'Before' study, exactly.

CONSULTANT shall prepare a memorandum comparing the results of the 'Before' and 'After' field study with reference to the specific MOE's. The report shall specifically give data on total project cost for the PI along with a one year and three year projection on benefit to cost. CONSULTANT shall present the findings to the Board. CONSULTANT shall finalize the memorandum based on comments from other agencies and the APM. GHG calculations shall be performed by the APM and incorporated into the memorandum and final reported from the APM and other involved AGENCIES.

Deliverables – Task 6:

1. Memorandum comparing the results of the 'Before' and 'After' studies, including benefit to cost ratio, to be distributed to OCTA Board as an item. More detailed analysis of project results to be included in Task 8: project report.
2. Presentation to the Board of the 'Before' and 'After' study comparison.
3. Electronic versions of all data files and memorandum.

Task 7: Synchronization System Construction – Party Specific

Task 7A General:

All work and equipment supplied for PROJECT shall comply and be done in accordance with all provisions of latest approved version of Section 86 of the State of California Standard Specifications as amended herein and the State of California Standard Plans as amended herein or on Construction Plans for PROJECT. Individual local agency standards for construction of infrastructure are included as appendices to this SOW and are hereby made a part of this PROJECT1 or PROJECT2, respectively. CONSULTANT will work directly with APM and affected agencies at the outset of conceptual design to affect the most cost effective and time sensitive approach to communications designs.

Task 7B Special Provisions

1. CONSULTANT shall coordinate with each Party of the PROJECT to assess special construction requirements, needs and desires, either known and proposed or previously unforeseen or unknown but necessary to complete the project including:
 - a. GPS time clocks at Central, Field Master, and Local Intersection Controller Assemblies;
 - b. The replacement and/or modifications to intersection controller assemblies and/or units;
 - i. Note: All controller units being updated or replaced shall be an Advanced Transportation Controller (ATC) Unit, the unit shall comply with the latest approved ATC 5201 (Version 6.24 or later) with Applications Programming Interface with Referenced Implementation (APIRI) Standard 5401 specifications;
 - c. New Central Systems or modifications / upgrades from closed loop system to central system hardware, firmware, and software must be NTCIP compatible systems with Center to Center (C2C) communications ready capability. System Telemetry C2C or to intersections from Central (C2F) or peer to peer shall be Internet Protocol (I.P.) based Ethernet over Copper, Ethernet over Fiber, or hybrid of those two. Closed Loop Systems shall not be continued, supplied nor installed without special consideration and approval by OCTA and APM. Sole Source systems or systems that are a linked subset or part of a sole source central system shall not be installed unless verification of need can be demonstrated to OCTA APM and CAMM Contract Administrator per OCTA standards and policies. In the circumstance where a local intersection system controller is a necessary sole source and there is no alternate substitute, the CONSULTANT shall procure the sole source local intersection controller unit. The controller assembly and appurtenances housing the local intersection system controller may be supplied by others.
 - i. New Central Systems (ATMS) or modifications to ATMS shall include a minimum of 2.5 days on site training. This shall be followed by 1 day of mentoring hands - on for operators.
 - d. Modifications, additions, or repair of missing or damaged signal synchronization infrastructure and other assets to be determined. (See Pages A-60 to A-88 for the matrix for each PARTY as to what is currently proposed to be constructed. See Task 3: Field Review, Plans Specifications and Estimates, Design Standards and

Requirements for allowed systems and sub systems, sole source, and design requirements for all equipment to be installed.);

- e. CONSULTANT shall provide design services for interconnect plans along the PROJECT route. The interconnect plans may be submitted as high quality detailed aerial plans at 1" = 40' scale. The plans shall include, but not be limited to, all utilities, locations of control and communications cabinets, conduit runs, pull boxes, R/W and roadway centerlines, North Arrow, etc. The interconnect plans shall also provide fiber optic cable terminations details at each signalized intersection, and show the communication path from each intersection to a communications hub (if any) to the appropriate Party Traffic Management Center. All connections and terminations to the existing fiber infrastructure shall be indicated;
- i. **CONSULTANT shall contact each appropriate Party's inspection services division to determine inspection costs that might impact PROJECT budget but may not have been included in original approved Board of Directors allocation for PROJECT.**
- f. CONSULTANT shall provide design services for traffic signal modification plans at intersections where minor phasing or other electrical changes require an "as-built" drawing record change for the intersection. Plans shall be drawn at 1"= 20' scale and include all details described in (e) above.
- g. Consultant shall prepare maintenance related memoranda listing field conditions, maintenance, and design recommendations at the 50% submittal stage. CONSULTANT shall prepare an engineer's cost estimate that lists FDU and fiber associated equipment, Ethernet Switch(s), fiber jumpers, cables, ITS devices, etc., interconnect design plans and fiber strand splicing/termination diagrams to achieve desired and intended operation;
- h. CONSULTANT, at the 100% submittal stage, shall provide all construction documents, including PS & E and a list of FDU and fiber associated equipment, Ethernet Switch(s), fiber jumpers, cables, ITS devices, etc., interconnect design plans and fiber strand splicing/termination diagrams to achieve desired and intended operation.

2. Attention is directed to Section 86 – 1.05 CERTIFICATE OF COMPLIANCE.

Section 86 – 1.05 CERTIFICATE OF COMPLIANCE is included in entirety and modified with the following additions:

Add: Section 86 – 1.05.1 WARRANTIES, GUARANTIES and INSTRUCTION SHEETS as follows:

Manufacturers' warranties and guaranties furnished for materials used in the work and instruction sheets and parts lists supplied with materials shall be delivered to the owning Party prior to acceptance of the project. CONSULTANT, sub – consultant and vendors' of equipment and material on PROJECT shall provide to the owning Party the following Warranties and Guaranties:

- a. ONE (1) YEAR GUARANTEE on LABOR and MATERIAL for all equipment furnished, installed, and/or modified.
 - b. THREE (3) YEAR GUARANTEE on Firmware and Software Patches, Fixes, Updates, and Upgrades for all central and local control and communications systems supplied.
- Note: For all ATMS, this price shall be included in the lump sum price for installation. Continuity for existing ATMS shall be limited to 10 percent of the construction cost for Task 7 and included in the cost of the ATMS installation. No special hardware license or maintenance package shall be allowed.** Maintenance Contracts or extra fees for these specific tasks and deliverables shall not be allowed,

shown as such on any document, nor charged to any Party or Party by either the CONSULTANT, his/her sub – consultants, and/or vendors/suppliers, either jointly or severally, of the specified systems and related components for this service or task. (THIS MEANS SPECIFIC VENDOR MANDATED MAINTENANCE CONTRACTS SHALL NOT BE ALLOWED DURING THE ENTIRE 3 THREE YEAR CONTRACT PERIOD). If an agency wishes to enter into a Software and/or Hardware Maintenance Contract or Agreement with a specific vendor, they may do so at their sole expense.

Enforcement of Standard Warranties or Guaranties for hardware and software or firmware specified heretofore shall be the sole responsibility of the PARTY receiving the equipment.

3. Attention is directed to Section 86 – 8 PAYMENT. Section 86 - 8.01 PAYMENT is included herein in entirety with the following additions:

1. All work and equipment supplied and/or necessary for PROJECT, including all labor and material and insurances, to make PROJECT operate as designed and intended shall be included in the lump sum price for PROJECT. All work and equipment including labor, material, and insurances for maintaining and operating existing electrical facilities including communications equipment shall be included in the lump sum price for PROJECT.
2. **All work and equipment including labor, material, and insurances for utility location including potholing shall be included in the lump sum price for PROJECT.**
3. **For items 1 and 2 above inclusive, no additional compensation for same shall be allowed, therefore.**
4. Electrical energy service costs and regular maintenance costs for PROJECT facilities under construction shall be borne by the owning Party. Replacement and/or maintenance costs for PROJECT facilities caused by or from damage or negligence from public or Party shall be borne by the owning Party. Replacement and/or maintenance costs caused by or from damage or negligence on the part of CONSULTANT or sub – consultants, and/or vendors shall be borne by CONSULTANT.

4. Attention is directed to Section 86-2.14 TESTING

All performance testing relative to tasks performed on this PROJECT shall be performed by an inspector determined by the owning Party of the equipment being delivered or installed.

Testing of any traffic controller assemblies or traffic controller units shall be done per the policy at the direction of the owning Party. All Costs involved with TESTING shall be borne by the CONSULTANT.

7B.1 Description of Traffic Signal Work

The work to be performed under this Contract shall consist of, but not be limited to, the following,

which will be referred to as Primary Implementation Phase Field Work (PI Field Work):

- Furnish and install new SMFO cable with number of strands as shown on the plans along the project corridor.
- Remove existing Signal Interconnect Cable (SIC) from conduit at locations as shown on the plans. Use removed cable as a pull wire for installation of fiber optic cable where applicable.

- Furnish and install one new 6-24 strand SMFO drop cable at all signalized intersections where shown on the plans. (Anaheim excepted where a specific design is to be used as supplied by the City of Anaheim Traffic Engineering Division.)
- Furnish and install new #10 green trace wire at locations shown on the plans.
 - Mule Tape may be utilized in place of trace wire if allowed by local agency.
 - To be determined at Kick Off Meeting
- Furnish and install new conduit at locations shown on the plans.
- Remove existing pull box at locations shown on the plans.
- Furnish and install new #5, #6 and #6E pull boxes, at locations shown on the plans.
- Replace all damaged pull box lids for communications only.
- Furnish and install new splice vault at locations shown on the plans.
- Furnish and Install CCTV Dome Camera System at locations shown on the plans.
- Remove and salvage existing Ethernet Switch at locations shown on the plans.
- Furnish and install City approved Ethernet Switch at locations per plans, complete all connections for intended operation.
- Furnish and install new GPS modem at locations shown on the plans; Caltrans staff to perform installation.
- Remove and salvage existing controller units or controller assemblies at locations shown on the plans;
 - Caltrans staff to remove and salvage Caltrans owned equipment (not a part of this contract).
- Furnish and install new 2070 ATC or NEMA ATC controller (Field Master or Local) and accessories for intended operation
 - Caltrans shall furnish and install their own equipment (not a part of this contract)
- Furnish and install fiber optic communication equipment and accessories and fiber optic patch panel at locations shown on the Plans.
- Furnish and Install new splice enclosure at locations shown on the plans.
- Fusion splice SMFO and complete all SMFO connection per plans.
- Terminate SMFO at locations shown on the plans.
- Testing of all equipment and system furnished and installed under this Contract, including items furnished by others, including but not limited to the fiber optic communication system, CCTV camera system, associated fiber optic communication equipment, and copper SIC.
- Furnish accurate project documentation, as specified in these Special Provisions.
- Contractor shall be responsible for the traffic signal modification and installation at the locations shown on the plans per owning agency Standards.
- Contractor shall perform communication link testing for the locations that will utilize the existing twisted pair cables for Ethernet communication as shown on the plans.

The communications equipment and fiber optic cable installed as part of this contract are to support all of the ITS elements installed as part of this project which include all project CCTV cameras, as shown on the plans.

7B.2 Scheduling of Traffic Signal Work

Traffic Signal shutdown shall be limited to four hour periods between the hours of 9:00 a.m. and 3:00 p.m. on weekdays (Monday through Thursday), except as authorized by the Engineer.

Turn-on of new or rewired traffic signals, or those with a new controller cabinet shall only be scheduled for hours between 9 a.m. and 12 p.m. and shall not begin the functional test on a Friday, weekend, or any day preceding a holiday, except as authorized by the Engineer.

The Contractor may perform sub-surface work consisting of the installation of conduit, and foundations, prior to receipt of all electrical materials and equipment.

Above-ground signal work shall not commence until such time that the Contractor notifies the APM, in writing, of the date that all electrical materials and equipment are received, and said work shall start within 15 days after said date.

Existing street lighting shall remain in operation.

All striping, pavement markings, and signing shall be in place prior to signal turn-on and/or opening of street to public travel.

7B.3 Controller

General

This section shall govern the furnishing of an ATC controller of type shown on the plans and as directed by the Engineer.

Requirements

1. All controllers shall meet or exceed national ATC specification and standard 5201 version 6.24 with standard 5401 Applications Programming Interface with Referenced Implementation (APIRI)
 - a. Refer Caltrans Transportation Electrical Equipment Specifications (TEES) Chapter 9 to Chapter 11 for Specification of 2070 ATC Controller.
 - b. NEMA type controllers shall be NTCIP with standard A, B, and C Mil Spec connections plus all other specified connections.
 - c. D connectors may be utilized per manufacturer's specification.
 - d. SDLC or other types of BIU/SIU interface may be included and/or be substituted for or in lieu of NEMA A, B, C, and D connections if allowed by local agency and all functionalities of the substituted connections are included.

7B.4 SPECIAL PROVISIONS per PROJECT

Each PROJECT1 and PROJECT2 will have their own respective Special Provisions and local agency standards, and specifications and are included as part of TASK 7 and all deliverables for Tasks 7A and 7B

Deliverables – Task 7A and 7B All:

1. Existing field conditions report
2. Interconnect and ITS Design Plans at 50, 90, and 100% submittal stages
3. Engineer's Cost Estimate
4. Memoranda as described above
5. Construction Documentation

6. Procure and install any and all equipment as specified, and/or necessary, to make the proposed systems operate as originally intended, per this Scope of Work and Attachments or Appendices.
7. Negotiate with APM and Party representatives on alternative procurements or substitutions as deemed necessary during the course of the PROJECT.
8. AS-BUILT Plans and Specifications.
9. All WARRANTIES and GUARANTIES as specified.
10. All documentation shall be supplied to APM and City Traffic Engineers in two hard copies and electronic copies.

IV. TASK 8 OPERATIONS MAINTENANCE and MONITORING PHASE

Prior to beginning the Operations Maintenance and Monitoring (OMM) Phase of the PROJECT, CONSULTANT shall have completed all PI tasks and received official approval from the AGENCIES on completion of their respective PROJECT segments of the PI Phase, and;

1. Invoiced, and paid all third party sub-consultants and vendors
2. Invoiced OCTA for the final invoice, paid, and cashed final invoice check
3. Invoiced with Request Letter for Release of Final Retention on PI Phase
4. Received payment of Final Retention and Cashed check.

Once these four items are complete, a NTP will be issued by the APM to CONSULTANT to advance to the OMM Phase. Until the NTP is issued, no work or hours may be charged against the OMM phase for the PROJECT.

Task 8.1: Project Management

Project Management is ongoing throughout the duration of the PROJECT. This task includes day-to-day project management, such as meetings, progress reports, tracking of schedules, invoicing, and overall administration of the PROJECT. The project management team, comprised of Authority personnel including internal on – call consulting support firms, and the Traffic Engineering Consultant (CONSULTANT), acts as an extension of the Authority staff and will act in that capacity at meetings with the respective corridor AGENCIES. Project Management shall continue in full force as specified in the Primary Implementation Phase.

Task 8.2: Continuing Signal Timing Support

CONSULTANT shall provide signal timing support services for a period of two years or 24 months following the implementation and fine – tuning of the final signal timing plans, Task 5, to address any future adjustments that may be needed during this period. Depending on the nature of the adjustment, CONSULTANT may accomplish the fine-tuning adjustments remotely from the office through the traffic management systems. During this 24-month period CONSULTANT shall be prepared to review any project intersection requested by the PTF within (24) hours of written notice, including observing and fine-tuning the signal timing.

CONSULTANT shall drive the length of the project arterial during all designated corridor synchronization timing plan hours of operation on a monthly basis in order to verify that the synchronization timing is working as designed, and complete any necessary adjustments. Monthly driving times will consist of a full 12-hour weekday and a 4-hour Saturday. CONSULTANT shall notify APM 24 hours prior to commencement of driving periods. All drives shall be documented and

sent to APM as part of the monthly invoice. A copy, limited to political boundaries, shall also be sent to each Party.

Project Management Costs associated with Task 8 are all inclusive and are not part of Task 1: Project Management. CONSULTANT shall invoice monthly for all OMM tasks and shall include with the invoice a filled out form of work performed based on one or two page template provided by APM at Kick Off Meeting Number 1.

Deliverables – Task 8:

1. 24 months of support and revised signal timing plans and memorandum documenting CONSULTANT recommendations and Party actions.
2. Monthly invoicing including filled out Report Template of work performed.
3. Electronic versions of all data files and memorandums.

V. REPORTING

Task 9: Project Report

At the end of the one (1) year implementation phase of the three (3) year contract period, CONSULTANT shall prepare a Final Project Report with an executive summary. The report shall provide complete documentation of the project, including, but not limited to, project objectives, project locations, project scope, findings, recommendations, implementation schedule, improvements accomplished, report on the Continued Signal Timing Support per Task 8, and procedures for continuing maintenance, surveillance, and evaluation of the coordinated signal system, work performed, data collected: 'before' and 'after' studies and project benefits achieved in terms of fuel savings, travel time, and other measurable parameters. The report shall document all planned and programmed improvements on the study corridor as well as recommendations for further infrastructure improvements that would likely improve the corridor signal coordination project results. CONSULTANT shall present the final report and results of the project to the Board and city councils as required. The report shall be completed in accordance with the current CTFP Guidelines.

The report shall include for each intersection the lane configurations; signal phasing, turning movement data, and cycle lengths for existing and proposed timings for all peak periods. In addition, in a separate binder, all the traffic signal phase sequences, signal timing plans, and pedestrian timings shall be documented. Finally, the report shall provide recommendations with cost and benefit estimates for future improvements to traffic signal infrastructure (signal controllers, vehicle detection, communications, etc.), intersection capacity (appropriate signal phasing, lane geometrics, and alleviation of physical bottlenecks that curtail arterial capacity), and traffic management strategies. These proposed improvements are beyond the scope of this project but should be useful in determining future enhancements to the corridor. CONSULTANT shall complete the Primary Implementation Phase and have paid all third party vendors and sub-consultants/contractors. CONSULTANT shall request in writing release of retention of funds for Primary Implementation Phase.

At the end of the three (3) year contract period, the Consultant shall prepare or provide information to APM for the OCTA FINAL REPORT as required by the M2 Ordinance and Chapter 10 of the FY 2016 CTFP Guidelines. This report is a fill in the form type of report.

Deliverables – Task 9:

1. Draft and Final PROJECT Signal Synchronization Project Report (one electronic master, two hardcopies to Authority, and one hardcopy per Party) and Presentations at the end of the one (1) year Implementation Phase.
2. Final PROJECT Report per Chapter 10 of Fiscal Year 2016 CTFP Guidelines.
3. Follow directions on closing out Primary Implementation Phase and release of retention funds.

VI. TRAFFIC SIGNAL MODELING SUPPORT (Optional)

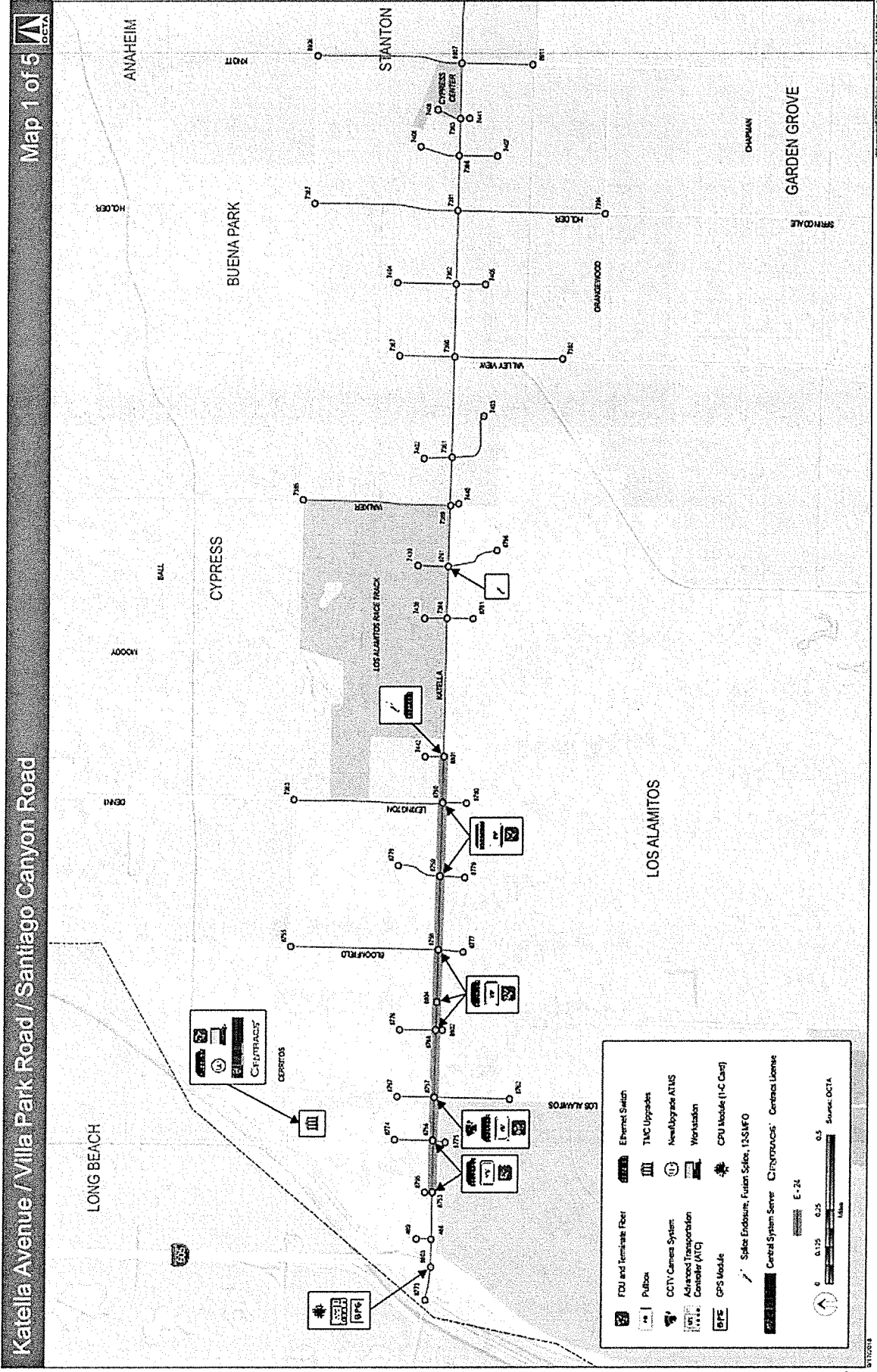
Trafficware, the company that sells and supports Synchro Sim Traffic Suite for modeling of traffic signal coordination systems, has announced Version 9 has now reached the end of its useful life and, Version 10 has just recently been released. In order to support and model the Katella Avenue RTSSP Project properly and adequately, Version 10 of the Synchro Sim Traffic Suite shall be supplied to designated Parties as part of this Project. Additionally, Tru Traffic Version 10 shall also be supplied to the same designated Parties of this Project.

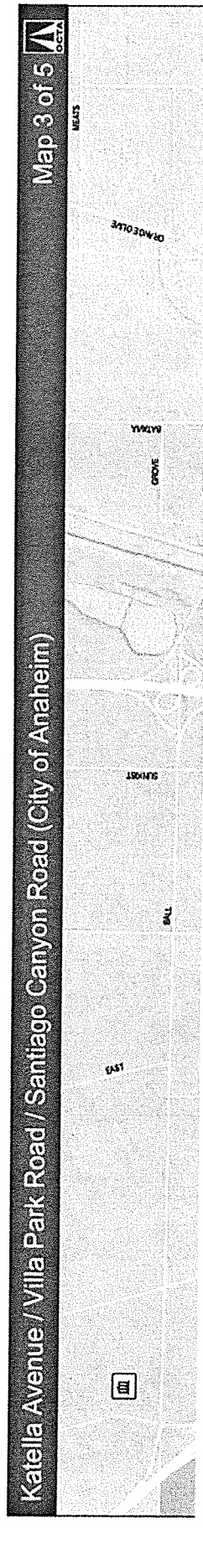
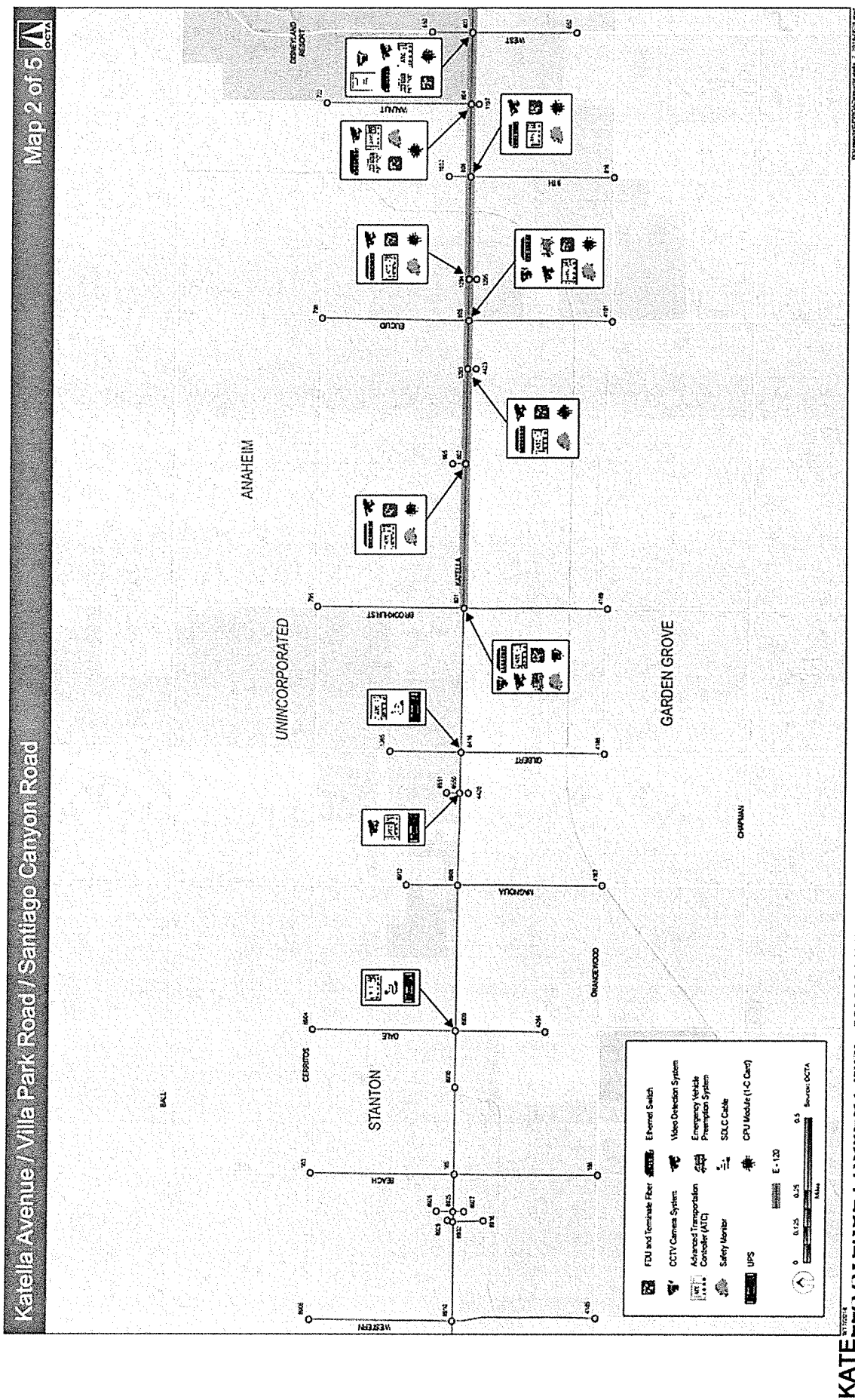
Deliverables Traffic Signal Modeling Support

Synchro Sim Traffic Suite Version 10 and Tru Traffic Version 10

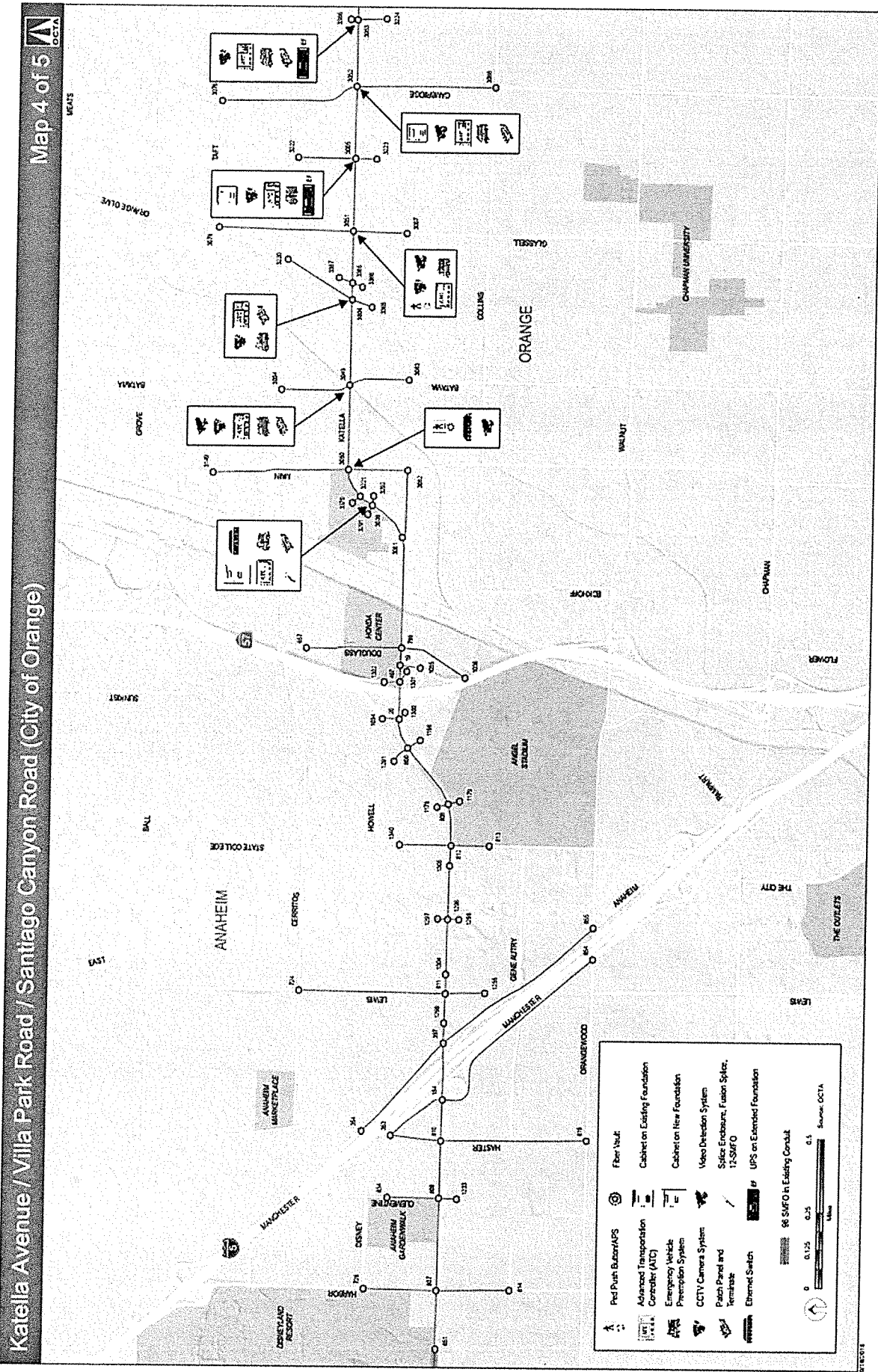
All Participating Agencies except Caltrans - 1 each of Synchro/Sim Traffic Version 10 and 1 each Tru Traffic Version 10. This deliverable is optional depending on project costs.

KATELLA AVENUE PROJECT MAP WITH SUMMARY OF IMPROVEMENTS

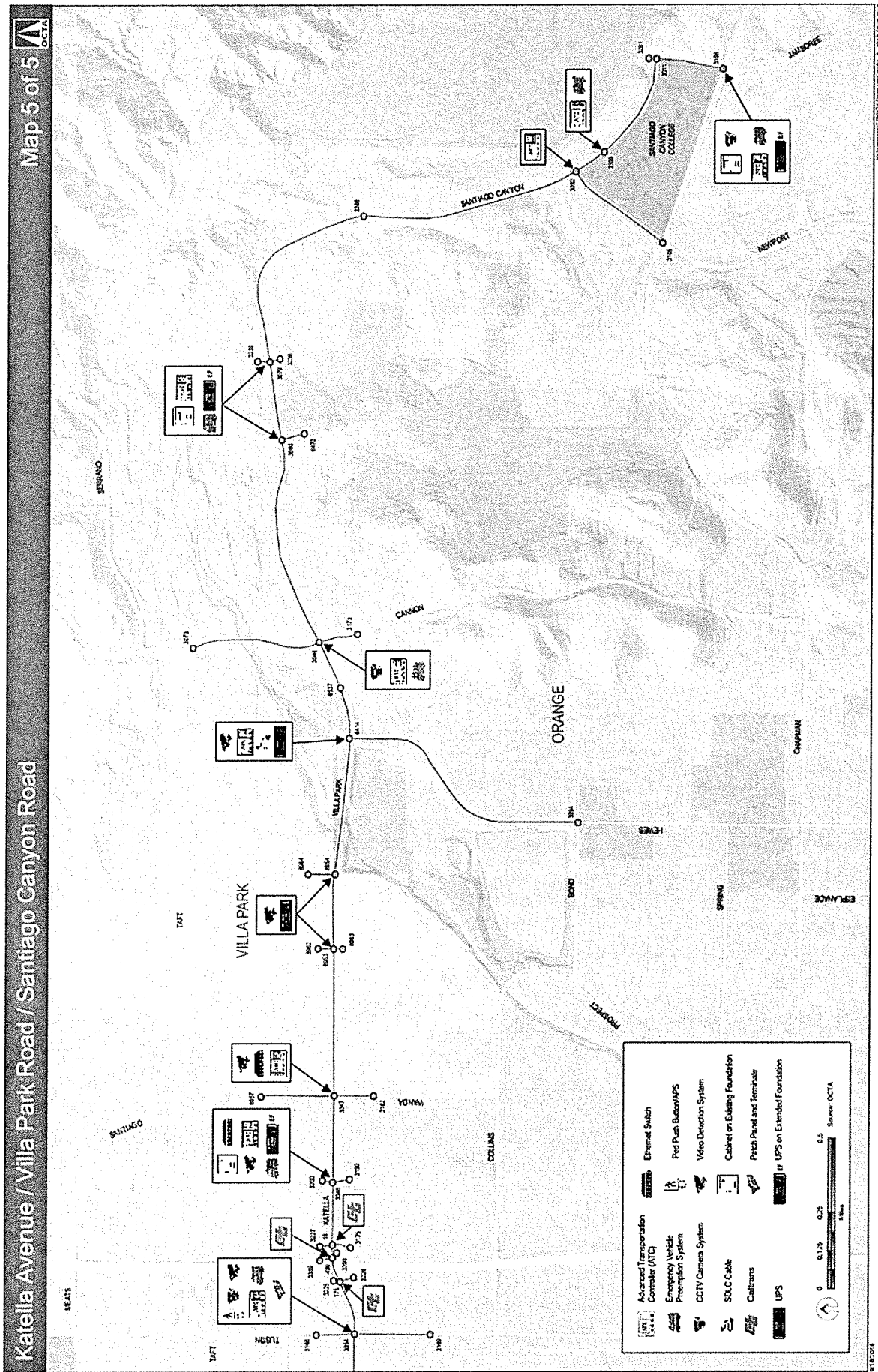




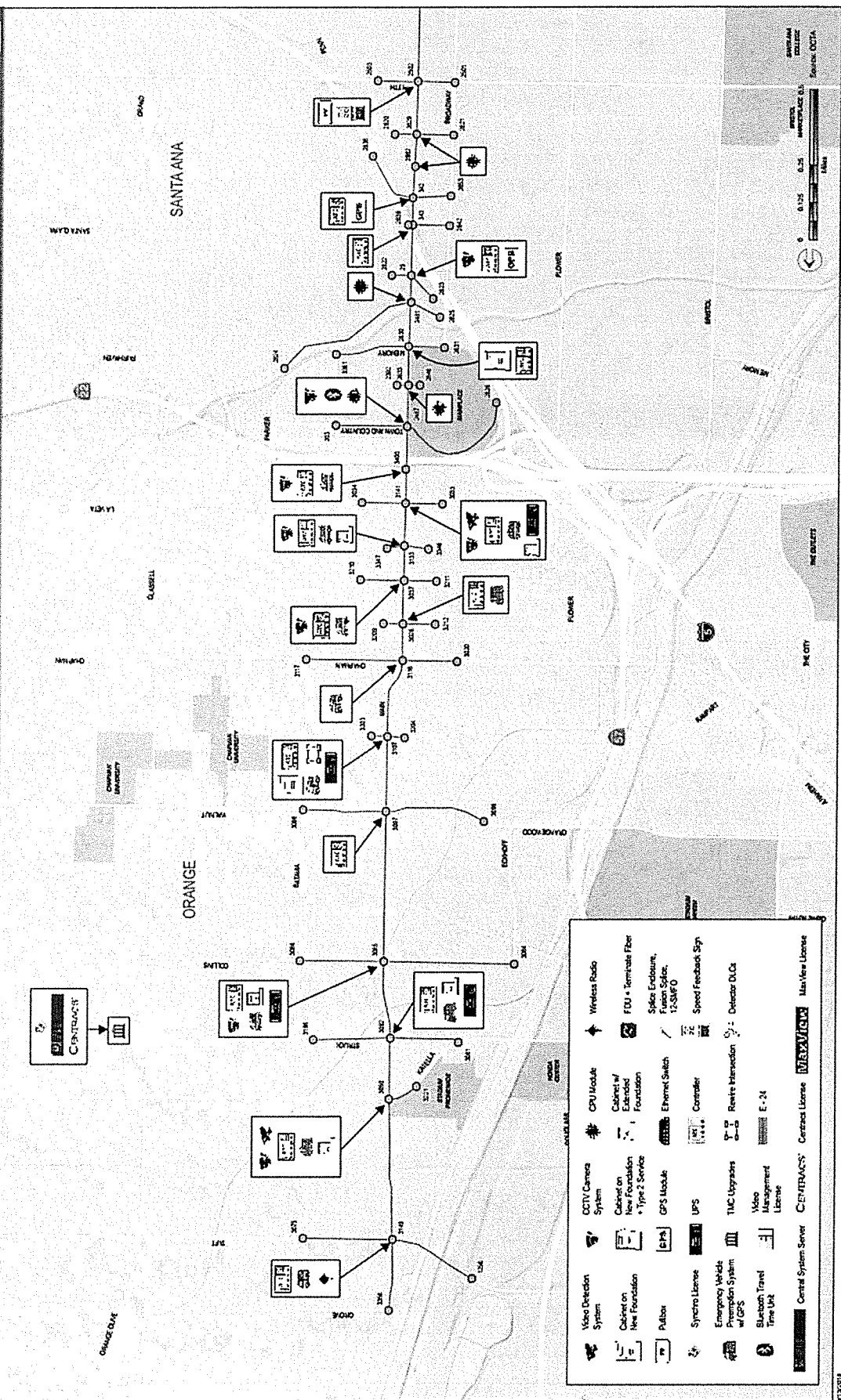
KATELLA AVENUE PROJECT MAP WITH SUMMARY OF IMPROVEMENTS



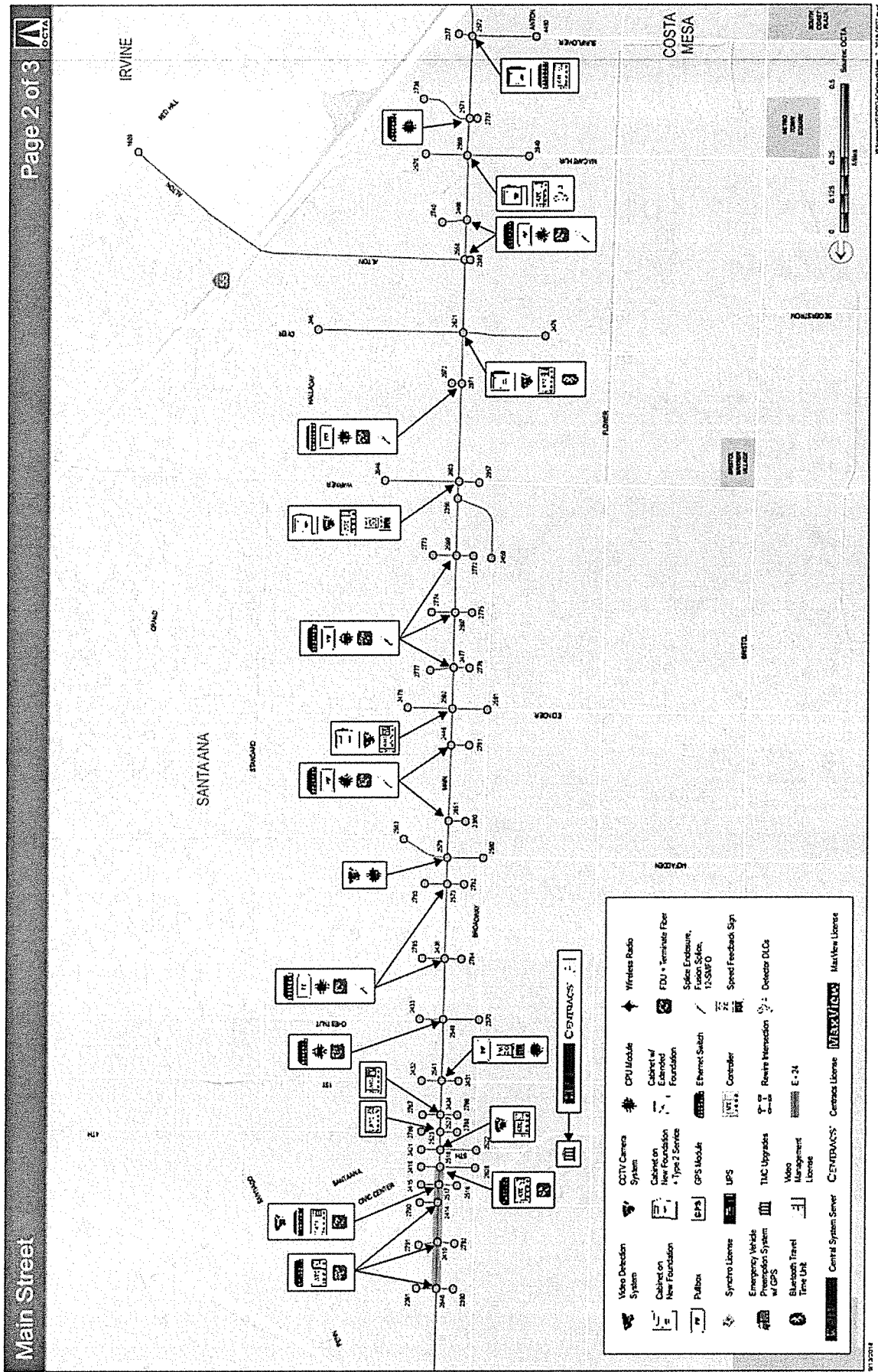
KATELLA AVENUE PROJECT MAP WITH SUMMARY OF IMPROVEMENTS



MAIN STREET PROJECT MAP WITH SUMMARY OF IMPROVEMENTS



MAIN STREET PROJECT MAP WITH SUMMARY OF IMPROVEMENTS



MAIN STREET PROJECT MAP WITH SUMMARY OF IMPROVEMENTS

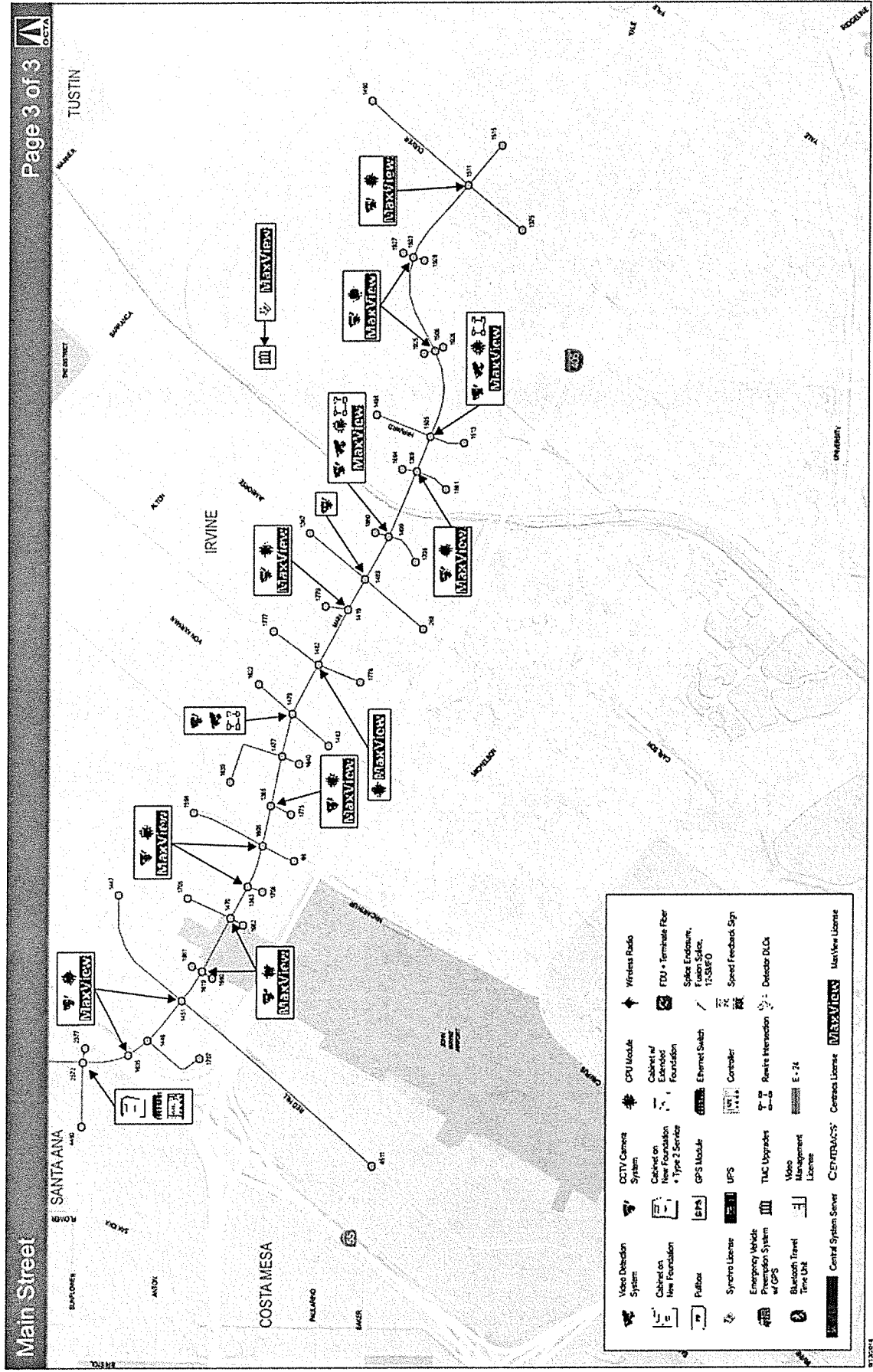


EXHIBIT B: PROPOSED AGREEMENT

B. AUTHORITY's failure to insist in any one or more instances upon the performance of any terms or conditions of this Agreement shall not be construed as a waiver or relinquishment of AUTHORITY's right to such performance by CONSULTANT or to future performance of such terms or conditions and CONSULTANT obligation in respect thereto shall continue in full force and effect. Changes to any portion of this Agreement shall not be binding upon AUTHORITY except when specifically confirmed in writing by an authorized representative of AUTHORITY by way of a written Amendment to this Agreement and issued in accordance with the provisions of this Agreement.

ARTICLE 2. AUTHORITY DESIGNEE

This Agreement shall commence upon the effective date of this Agreement, and shall continue in full force and effect through June 30, 2024, unless earlier terminated or extended as provided in this Agreement.

ARTICLE 3. SCOPE OF WORK

A. CONSULTANT shall perform the work necessary to complete in a manner satisfactory to AUTHORITY the services set forth in Exhibit A, entitled "Scope of Work," which is attached to and, by this reference, incorporated in and made a part of this Agreement. All services shall be provided at the times and places designated by AUTHORITY.

B. CONSULTANT shall provide the personnel listed below to perform the above-specified services, which persons are hereby designated as key personnel under this Agreement.

Names

Functions

C. No person named in paragraph B of this Article, or his/her successor approved by AUTHORITY, shall be removed or replaced by CONSULTANT, nor shall his/her agreed-upon function or level of commitment hereunder be changed, without the prior written consent of AUTHORITY.

Should the services of any key person become no longer available to CONSULTANT, the resume and qualifications of the proposed replacement shall be submitted to AUTHORITY for approval as soon as possible, but in no event later than seven (7) calendar days prior to the departure of the incumbent key person, unless CONSULTANT is not provided with such notice by the departing employee. AUTHORITY shall respond to CONSULTANT within seven (7) calendar days following receipt of these qualifications concerning acceptance of the candidate for replacement.

ARTICLE 4. TERM OF AGREEMENT

This Agreement shall commence upon the effective date of this Agreement, and shall continue in full force and effect through thirty (30) days beyond the date in which AUTHORITY formally approves, in writing, the final as-built drawings prepared and submitted by CONSULTANT, unless earlier terminated as provided hereunder.

ARTICLE 5. PAYMENT

A. For CONSULTANT's full and complete performance of its obligations under this Agreement and subject to the maximum cumulative payment obligation provision set forth in Article 6, AUTHORITY shall pay CONSULTANT on a firm fixed price basis in accordance with the following provisions.

B. The following schedule shall establish the firm fixed payment to CONSULTANT by AUTHORITY for each work task set forth in the Scope of Work.

<u>Task</u>	<u>Description</u>	<u>Firm Fixed Price</u>
Task 1	Project Management – Primary Implementation Phase	.00
Task 2	Data Collection	.00
Task 3	Field Review, Plans Specification and Estimates, Design Standards and Requirements	.00
Task 4	'Before' Study	.00
Task 5	Signal Timing Optimization and Implementation	.00
Task 6	'After' Study	.00
Task 7	Synchronization System Construction – Party Specific	.00

Task 8	Operation Maintenance and Monitoring Phase	.00
Task 9	Project Report	.00
TOTAL FIRM FIXED PRICE PAYMENT		.00

C. CONSULTANT shall invoice AUTHORITY on a monthly basis for payments corresponding to the work actually completed by CONSULTANT. Percentage of work completed shall be documented in a monthly progress report prepared by CONSULTANT, which shall accompany each invoice submitted by CONSULTANT. CONSULTANT shall also furnish such other information as may be requested by AUTHORITY to substantiate the validity of an invoice. At its sole discretion, AUTHORITY may decline to make full payment for any task listed in paragraph B of this Article until such time as CONSULTANT has documented to AUTHORITY's satisfaction, that CONSULTANT has fully completed all work required under the task. AUTHORITY's payment in full for any task completed shall not constitute AUTHORITY's final acceptance of CONSULTANT's work under such task; final acceptance shall occur only when AUTHORITY's release of the retention described in paragraph D.

D. As partial security against CONSULTANT's failure to satisfactorily fulfill all of its obligations under this Agreement, AUTHORITY shall retain Ten percent (10%) of the amount of each invoice submitted for payment by CONSULTANT. All retained funds shall be released by AUTHORITY and shall be paid to CONSULTANT within sixty (60) calendar days of payment of final invoice, unless AUTHORITY elects to audit CONSULTANT's records in accordance with Article 16 of this Agreement. If AUTHORITY elects to audit, retained funds shall be paid to CONSULTANT within thirty (30) calendar days of completion of such audit in an amount reflecting any adjustment required by such audit. During the term of the Agreement, at its sole discretion, AUTHORITY reserves the right to release all or a portion of the retained amount based on CONSULTANT's satisfactory completion of certain milestones. CONSULTANT shall invoice AUTHORITY for the release of the retention in accordance with Article 5.

E. Invoices shall be submitted by CONSULTANT on a monthly basis and shall be submitted in duplicate to AUTHORITY's Accounts Payable office. CONSULTANT may also submit invoices electronically to AUTHORITY's Accounts Payable Department at vendorinvoices@octa.net. Each

invoice shall be accompanied by the monthly progress report specified in paragraph C of this Article. AUTHORITY shall remit payment within thirty (30) calendar days of the receipt and approval of each invoice. Each invoice shall include the following information:

1. Agreement No. C-8-2038;
2. Specify the task number for which payment is being requested;
3. The time period covered by the invoice;
4. Total monthly invoice (including project-to-date cumulative invoice amount); and retention;
5. Monthly Progress Report;
6. Weekly certified payroll for personnel subject to prevailing wage requirements;
7. Certificate signed by the CONSULTANT or his/her designated alternate that a) The invoice is a true, complete and correct statement of reimbursable costs and progress; b) The invoice is a true, complete and correct statement of reimbursable costs; c) The backup information included with the invoice is true, complete and correct in all material respects; d) All payments due and owing to subcontractors and suppliers have been made; e) Timely payments will be made to subcontractors and suppliers from the proceeds of the payments covered by the certification and; f) The invoice does not include any amount which CONSULTANT intends to withhold or retain from a subcontractor or supplier unless so identified on the invoice.
8. Any other information as agreed or otherwise requested by AUTHORITY to substantiate the validity of an invoice.

ARTICLE 6. MAXIMUM OBLIGATION

Notwithstanding any provisions of this Agreement to the contrary, AUTHORITY and CONSULTANT mutually agree that AUTHORITY's maximum cumulative payment obligation (including obligation for CONSULTANT's profit) shall be Dollars (\$.00) which shall include all amounts payable to CONSULTANT for its subcontracts, leases, materials and costs arising from, or due to termination of, this Agreement.

ARTICLE 7. NOTICES

All notices hereunder and communications regarding the interpretation of the terms of this Agreement, or changes thereto, shall be effected by delivery of said notices in person or by depositing said notices in the U.S. mail, registered or certified mail, returned receipt requested, postage prepaid and addressed as follows:

To CONSULTANT:

To AUTHORITY:

Orange County Transportation Authority

550 South Main Street

P.O. Box 14184

Orange, CA 92863-1584

ATTENTION:

ATTENTION: Venita Anderson

Senior Contract Administrator

(714) 560 - 5427/ vanderson@octa.net

ARTICLE 8. INDEPENDENT CONTRACTOR

CONSULTANT's relationship to AUTHORITY in the performance of this Agreement is that of an independent CONTRACTOR. CONSULTANT's personnel performing services under this Agreement shall at all times be under CONSULTANT's exclusive direction and control and shall be employees of CONSULTANT and not employees of AUTHORITY. CONSULTANT shall pay all wages, salaries and other amounts due its employees in connection with this Agreement and shall be responsible for all reports and obligations respecting them, such as social security, income tax withholding, unemployment compensation, workers' compensation and similar matters.

ARTICLE 9. INSURANCE

A. CONSULTANT shall procure and maintain insurance coverage during the entire term of this Agreement. The following coverage shall be full coverage and not subject to self-insurance provision. CONSULTANT shall provide the following insurance coverage:

/

1. Commercial General Liability, to include Products/Completed Operations, Independent CONSULTANTS', Contractual Liability, and Personal Injury with a minimum limit of \$1,000,000.00 per occurrence and \$2,000,000.00 general aggregate.

2. Automobile Liability to include owned, hired and non-owned autos with a combined single limit of \$1,000,000.00 each accident;

3. Workers' Compensation with limits as required by the State of California including a waiver of subrogation in favor of AUTHORITY, its officers, directors, employees and agents;

4. Employers' Liability with minimum limits of \$1,000,000.00; and

5. Professional Liability with minimum limits of \$1,000,000.00 per claim.

B. Proof of such coverage, in the form of an insurance company issued policy endorsement and a broker-issued insurance certificate, must be received by AUTHORITY prior to commencement of any work. Proof of insurance coverage must be received by AUTHORITY within ten (10) calendar days from the effective date of this Agreement with AUTHORITY, its officers, directors, employees and agents designated as additional insured on the general and automobile liability. Such insurance shall be primary and non-contributive to any insurance or self-insurance maintained by AUTHORITY. Furthermore, AUTHORITY reserves the right to request certified copies of all related insurance policies.

C. CONSULTANT shall include on the face of the certificate of Insurance the Agreement Number C-8-2038; and, the Contract Administrator's Name, Venita Anderson.

D. CONSULTANT shall also include in each subcontract agreement the stipulation that subcontractors shall maintain insurance coverage in the amounts required from CONSULTANT as provided in this Agreement.

E. CONSULTANT shall be required to immediately notify AUTHORITY of any modifications or cancellation of any required insurance policies.

ARTICLE 10. ORDER OF PRECEDENCE

Conflicting provisions hereof, if any, shall prevail in the following descending order of precedence: (1) the provisions of this Agreement, including all exhibits; (2) the provisions of RFP 8-

2038; (3) CONSULTANT's technical proposal dated _____, CONSULTANT's cost proposal dated _____, and (4) all other documents, if any, cited herein or incorporated by reference.

ARTICLE 11. CHANGES

By written notice or order, AUTHORITY may, from time to time, order work suspension and/or make changes in the general scope of this Agreement, including, but not limited to, the services furnished to AUTHORITY by CONSULTANT as described in the Scope of Work. If any such work suspension or change causes an increase or decrease in the price of this Agreement or in the time required for its performance, CONSULTANT shall promptly notify AUTHORITY thereof and assert its claim for adjustment within ten (10) days after the change or work suspension is ordered, and an equitable adjustment shall be negotiated. However, nothing in this clause shall excuse CONSULTANT from proceeding immediately with the Agreement as changed.

ARTICLE 12. DISPUTES

A. Except as otherwise provided in this Agreement, any dispute concerning a question of fact arising under this Agreement which is not disposed of by supplemental agreement shall be decided by AUTHORITY's Director, Contracts Administration and Materials Management (CAMM), who shall reduce the decision to writing and mail or otherwise furnish a copy thereof to CONSULTANT. The decision of the Director, CAMM, shall be final and conclusive.

B. Pending final decision of a dispute hereunder, CONSULTANT shall proceed diligently with the performance of this Agreement and in accordance with the decision of AUTHORITY's Director, CAMM. This "Disputes" clause does not preclude consideration of questions of law in connection with decisions provided for above. Nothing in this Agreement, however, shall be construed as making final the decision of any AUTHORITY official or representative on a question of law, which questions shall be settled in accordance with the laws of the State of California.

ARTICLE 13. TERMINATION

A. AUTHORITY may terminate this Agreement for its convenience at any time, in whole or part, by giving CONSULTANT written notice thereof. Upon said notice, AUTHORITY shall pay

CONSULTANT its allowable costs incurred to date of termination and those allowable costs determined by AUTHORITY to be reasonably necessary to effect such termination. Thereafter, CONSULTANT shall have no further claims against AUTHORITY under this Agreement.

B. In the event either Party defaults in the performance of any of their obligations under this Agreement or breaches any of the provisions of this Agreement, the non-defaulting Party shall have the option to terminate this Agreement upon thirty (30) days' prior written notice to the other Party. Upon receipt of such notice, CONSULTANT shall immediately cease work, unless the notice from AUTHORITY provides otherwise. Upon receipt of the notice from AUTHORITY, CONSULTANT shall submit an invoice for work and/or services performed prior to the date of termination. AUTHORITY shall pay CONSULTANT for work and/or services satisfactorily provided to the date of termination in compliance with this Agreement. Thereafter, CONSULTANT shall have no further claims against AUTHORITY under this Agreement. AUTHORITY shall not be liable for any claim of lost profits or damages for such termination.

ARTICLE 14. INDEMNIFICATION

CONSULTANT shall indemnify, defend and hold harmless AUTHORITY, its officers, directors, employees and agents from and against any and all claims (including attorneys' fees and reasonable expenses for litigation or settlement) for any loss or damages, bodily injuries, including death, damage to or loss of use of property caused by the negligent acts, omissions or willful misconduct by CONSULTANT, its officers, directors, employees, agents, subcontractors or suppliers in connection with or arising out of the performance of this Agreement.

ARTICLE 15. ASSIGNMENTS AND SUBCONTRACTS

A. Neither this Agreement nor any interest herein nor claim hereunder may be assigned by CONSULTANT either voluntarily or by operation of law, nor may all or any part of this Agreement be subcontracted by CONSULTANT, without the prior written consent of AUTHORITY. Consent by AUTHORITY shall not be deemed to relieve CONSULTANT of its obligations to comply fully with all terms and conditions of this Agreement.

B. AUTHORITY hereby consents to CONSULTANT's subcontracting of portions of the Scope of Work to the parties identified below for the functions described in CONSULTANT's proposal. CONSULTANT shall include in the subcontract agreement the stipulation that CONSULTANT, not AUTHORITY, is solely responsible for payment to the subcontractor for the amounts owing and that the subcontractor shall have no claim, and shall take no action, against AUTHORITY, its officers, directors, employees or sureties for nonpayment by CONSULTANT.

<u>Subcontractor Name/Address</u>	<u>Subcontractor Amounts</u>
1.	.00
2.	.00

ARTICLE 16. AUDIT AND INSPECTION OF RECORDS

CONSULTANT shall provide AUTHORITY, or other agents of AUTHORITY, such access to CONSULTANT's accounting books, records, work data, documents and facilities, as AUTHORITY deems necessary. CONSULTANT shall maintain such books, records, data and documents in accordance with generally accepted accounting principles and shall clearly identify and make such items readily accessible to such parties during CONSULTANT's performance hereunder and for a period of four (4) years from the date of final payment by AUTHORITY. AUTHORITY's right to audit books and records directly related to this Agreement shall also extend to all first-tier subcontractors identified in Article 15 of this Agreement. CONSULTANT shall permit any of the foregoing parties to reproduce documents by any means whatsoever or to copy excerpts and transcriptions as reasonably necessary.

ARTICLE 17. FEDERAL, STATE AND LOCAL LAWS

CONSULTANT warrants that in the performance of this Agreement, it shall comply with all applicable federal, state and local laws, statutes and ordinances and all lawful orders, rules and regulations promulgated thereunder.

ARTICLE 18. EQUAL EMPLOYMENT OPPORTUNITY

In connection with its performance under this Agreement, CONSULTANT shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age or national origin. CONSULTANT shall take affirmative action to ensure that applicants are employed, and that employees are treated during their employment, without regard to their race, religion, color, sex, age or national origin. Such actions 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.

ARTICLE 19. PROHIBITED INTERESTS

CONSULTANT covenants that, for the term of this Agreement, no director, member, officer or employee of AUTHORITY during his/her tenure in office/employment or for one (1) year thereafter shall have any interest, direct or indirect, in this Agreement or the proceeds thereof.

ARTICLE 20. OWNERSHIP OF REPORTS AND DOCUMENTS

A. The originals of all letters, documents, reports and other products and data produced under this Agreement shall be delivered to, and become the property of AUTHORITY. Copies may be made for CONSULTANT's records but shall not be furnished to others without written authorization from AUTHORITY. Such deliverables shall be deemed works made for hire and all rights in copyright therein shall be retained by AUTHORITY.

B. All ideas, memoranda, specifications, plans, manufacturing, procedures, drawings, descriptions, and all other written information submitted to CONSULTANT in connection with the performance of this Agreement shall not, without prior written approval of AUTHORITY, be used for any purposes other than the performance for this project, nor be disclosed to an entity not connected with the performance of the project. CONSULTANT shall comply with AUTHORITY's policies regarding such material. Nothing furnished to CONSULTANT, which is otherwise known to CONSULTANT or becomes generally known to the related industry shall be deemed confidential. CONSULTANT shall not use AUTHORITY's name, photographs of the project, or any other publicity pertaining to the project in any

1 professional publication, magazine, trade paper, newspaper, seminar or other medium without the
2 express written consent of AUTHORITY.

3 C. No copies, sketches, computer graphics or graphs, including graphic art work, are to be
4 released by CONSULTANT to any other person or agency except after prior written approval by
5 AUTHORITY, except as necessary for the performance of services under this Agreement. All press
6 releases, including graphic display information to be published in newspapers, magazines, etc., are to
7 be handled only by AUTHORITY unless otherwise agreed to by CONSULTANT and AUTHORITY.

8 **ARTICLE 21. PATENT AND COPYRIGHT INFRINGEMENT**

9 A. In lieu of any other warranty by AUTHORITY or CONSULTANT against patent or copyright
10 infringement, statutory or otherwise, it is agreed that CONSULTANT shall defend at its expense any
11 claim or suit against AUTHORITY on account of any allegation that any item furnished under this
12 Agreement or the normal use or sale thereof arising out of the performance of this Agreement, infringes
13 upon any presently existing U.S. letters patent or copyright and CONSULTANT shall pay all costs and
14 damages finally awarded in any such suit or claim, provided that CONSULTANT is promptly notified in
15 writing of the suit or claim and given authority, information and assistance at CONSULTANT's expense
16 for the defense of same. However, CONSULTANT will not indemnify AUTHORITY if the suit or claim
17 results from: (1) AUTHORITY's alteration of a deliverable, such that said deliverable in its altered form
18 infringes upon any presently existing U.S. letters patent or copyright; or (2) the use of a deliverable in
19 combination with other material not provided by CONSULTANT when such use in combination infringes
20 upon an existing U.S. letters patent or copyright.

21 B. CONSULTANT shall have sole control of the defense of any such claim or suit and all
22 negotiations for settlement thereof. CONSULTANT shall not be obligated to indemnify AUTHORITY
23 under any settlement made without CONSULTANT's consent or in the event AUTHORITY fails to
24 cooperate fully in the defense of any suit or claim, provided, however, that said defense shall be at
25 CONSULTANT's expense. If the use or sale of said item is enjoined as a result of such suit or claim,
26 CONSULTANT, at no expense to AUTHORITY, shall obtain for AUTHORITY the right to use and sell

1 said item, or shall substitute an equivalent item acceptable to AUTHORITY and extend this patent and
2 copyright indemnity thereto.

3 **ARTICLE 22. DESIGN WITHIN FUNDING LIMITATIONS**

4 A. In order to ensure the accuracy of the construction budget for the benefit of the public works
5 bidders and AUTHORITY's budget process, CONSULTANT shall accomplish the design services
6 required under this Agreement so as to permit the award of a contract, for the construction of the
7 facilities designed at a price that does not exceed the estimated construction contract price as set forth
8 by AUTHORITY. When bids or proposals for the construction contract are received that exceed the
9 estimated price, CONSULTANT shall perform such redesign and other services as are necessary to
10 permit contract award within the funding limitation. These additional services shall be performed at no
11 increase in the price for which the services were specified. However, CONSULTANT shall not be
12 required to perform such additional services at no cost to AUTHORITY if the unfavorable bids or
13 proposals are the result of conditions beyond its reasonable control.

14 B. CONSULTANT will promptly advise AUTHORITY if it finds that the project being designed
15 will exceed or is likely to exceed the funding limitations and it is unable to design a usable facility within
16 these limitations. Upon receipt of such information, AUTHORITY will review CONSULTANT's revised
17 estimate of construction cost. AUTHORITY may, if it determines that the estimated construction
18 contract price is so low that award of a construction contract not in excess of such estimate is
19 improbable, authorize a change in scope or materials as required to reduce the estimated construction
20 cost to an amount within the estimated construction contract price set forth by AUTHORITY, or
21 AUTHORITY may adjust such estimated construction contract price. When bids or proposals are not
22 solicited or are unreasonably delayed, AUTHORITY shall prepare an estimate of constructing the
23 design submitted and such estimate shall be used in lieu of bids or proposals to determine compliance
24 within the funding limitation.

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ARTICLE 23. REQUIREMENTS FOR REGISTRATION OF DESIGNERS

All design and engineering work furnished by CONSULTANT shall be performed by or under the supervision of persons licensed to practice architecture, engineering or surveying (as applicable) in the State of California, by personnel who are careful, skilled, experienced and competent in their respective trades or professions, who are professionally qualified to perform the work in accordance with the contract documents and who shall assume professional responsibility for the accuracy and completeness of the design documents and construction documents prepared or checked by them.

ARTICLE 24. FINISHED AND PRELIMINARY DATA

A. All of CONSULTANT's finished technical data, including but not limited to illustrations, photographs, tapes, software, software design documents, including without limitation source code, binary code, all media, technical documentation and user documentation, photoprints and other graphic information required to be furnished under this Agreement, shall be AUTHORITY's property upon payment and shall be furnished with unlimited rights and, as such, shall be free from proprietary restriction except as elsewhere authorized in this Agreement. CONSULTANT further agrees that it shall have no interest or claim to such finished, AUTHORITY-owned, technical data; furthermore, said data is subject to the provisions of the Freedom of Information Act, 5 USC 552.

B. It is expressly understood that any title to preliminary technical data is not passed to AUTHORITY but is retained by CONSULTANT. Preliminary data includes roughs, visualizations, software design documents, layouts and comprehensives prepared by CONSULTANT solely for the purpose of demonstrating an idea or message for AUTHORITY's acceptance before approval is given for preparation of finished artwork. Preliminary data title and right thereto shall be made available to AUTHORITY if CONSULTANT causes AUTHORITY to exercise ARTICLE 11, and a price shall be negotiated for all preliminary data.

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ARTICLE 25. GENERAL WAGE RATES

A. CONSULTANT warrants that all mechanics, laborers, journeypersons, workpersons, craftspersons or apprentices employed by CONSULTANT or subcontractor at any tier for any work hereunder, shall be paid unconditionally and not less often than once a week and without any subsequent deduction or rebate on any account (except such payroll deductions as are permitted or required by federal, state or local law, regulation or ordinance), the full amounts due at the time of payment, computed at a wage rate and per diem rate not less than the aggregate of the highest of the two basic hourly rates and rates of payments, contributions or costs for any fringe benefits contained in the current general prevailing wage rate(s) and per diem rate(s), established by the Director of the Department of Industrial Relations of the State of California, (as set forth in the Labor Code of the State of California, commencing at Section 1770 et. seq.), or as established by the Secretary of Labor (as set forth in Davis-Bacon Act, 40 U.S.C. 267a, et. seq.), regardless of any contractual relationship which may be alleged to exist between CONSULTANT or subcontractor and their respective mechanics, laborers, journeypersons, workpersons, craftspersons or apprentices. Copies of the current General Prevailing Wage Determinations and Per Diem Rates are on file at AUTHORITY's offices and will be made available to CONSULTANT upon request. CONSULTANT shall post a copy thereof at each job site at which work hereunder is performed.

B. In addition to the foregoing, CONSULTANT agrees to comply with all other provisions of the Labor Code of the State of California, which is incorporated herein by reference, pertaining to workers performing work hereunder including, but not limited to, those provisions for work hours, payroll records and apprenticeship employment and regulation program. CONSULTANT agrees to insert or cause to be inserted the preceding clause in all subcontracts which provide for workers to perform work hereunder regardless of the subcontractor tier.

ARTICLE 26. CONTRACTOR PURCHASED EQUIPMENT

A. If during the course of this Agreement, additional equipment is required, which will be paid for by the AUTHORITY, CONSULTANT must request prior written authorization from the

AUTHORITY's project manager before making any purchase. As part of this purchase request, CONSULTANT shall provide a justification for the necessity of the equipment or supply and submit copies of three (3) competitive quotations. If competitive quotations are not obtained, CONSULTANT must provide the justification for the sole source.

B. CONSULTANT shall maintain an inventory record for each piece of equipment purchased that will be paid for by the AUTHORITY. The inventory record shall include the date acquired, total cost, serial number, model identification, and any other information or description necessary to identify said equipment or supply. A copy of the inventory record shall be submitted to the AUTHORITY upon request.

C. At the expiration or termination of this Agreement, CONSULTANT may keep the equipment and credit AUTHORITY in an amount equal to its fair market value. Fair market value shall be determined, at CONSULTANT's expense, on the basis of an independent appraisal. CONSULTANT may sell the equipment at the best price obtainable and credit AUTHORITY in an amount equal to the sales price. If the equipment is to be sold, then the terms and conditions of the sale must be approved in advance by AUTHORITY's project manager.

D. Any subconsultant agreement entered into as a result of this Agreement shall contain all provisions of this clause.

ARTICLE 27. FORCE MAJEURE

Either party shall be excused from performing its obligations under this Agreement during the time and to the extent that it is prevented from performing by an unforeseeable cause beyond its control, including but not limited to: any incidence of fire, flood; acts of God; commandeering of material, products, plants or facilities by the federal, state or local government; national fuel shortage; or a material act or omission by the other party; when satisfactory evidence of such cause is presented to the other party, and provided further that such nonperformance is unforeseeable, beyond the control and is not due to the fault or negligence of the party not performing.

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ARTICLE 28. CONFLICT OF INTEREST

CONSULTANT agrees to avoid organizational conflicts of interest. An organizational conflict of interest means that due to other activities, relationships or contracts, the CONSULTANT is unable, or potentially unable to render impartial assistance or advice to the AUTHORITY; CONSULTANT's objectivity in performing the work identified in the Scope of Work is or might be otherwise impaired; or the CONSULTANT has an unfair competitive advantage. CONSULTANT is obligated to fully disclose to the AUTHORITY in writing Conflict of Interest issues as soon as they are known to the CONSULTANT. All disclosures must be submitted in writing to AUTHORITY pursuant to the Notice provision herein. This disclosure requirement is for the entire term of this Agreement.

ARTICLE 29. CODE OF CONDUCT

CONSULTANT agrees to comply with the AUTHORITY's Code of Conduct as it relates to Third-Party contracts which is hereby referenced and by this reference is incorporated herein. CONSULTANT agrees to include these requirements in all of its subcontracts.

ARTICLE 30. PROHIBITION ON PROVIDING ADVOCACY SERVICES

CONSULTANT and all subconsultants performing work under this Agreement, shall be prohibited from concurrently representing or lobbying for any other party competing for a contract with AUTHORITY, either as a prime consultant or subconsultant. Failure to refrain from such representation may result in termination of this Agreement.

ARTICLE 31. HEALTH AND SAFETY REQUIREMENTS

CONSULTANT shall comply with all the requirements set forth in EXHIBIT D, MODIFIED LEVEL 1 & 2 SAFETY AND ENVIRONMENTAL SPECIFICATIONS. As used therein, "Contractor" shall mean "Consultant," and "Subcontractor" shall mean "Sub-consultant."

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This Agreement shall be made effective upon execution by both parties.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement No. C-8-2038 to be executed on the date first above written.

ORANGE COUNTY TRANSPORTATION AUTHORITY

By _____

By _____

Darrell E. Johnson
Chief Executive Officer

APPROVED AS TO FORM:

By _____

James M. Donich
General Counsel

APPROVED:

By _____

Virginia Abadessa
Director

Date _____

EXHIBIT C: FORMS

CAMPAIGN CONTRIBUTION DISCLOSURE FORM

Information Sheet

ORANGE COUNTY TRANSPORTATION AUTHORITY

The attached Campaign Contribution Disclosure Form must be completed by applicants for, or persons who are the subject of, any proceeding involving a license, permit, or other entitlement for use pending before the Board of Directors of the OCTA or any of its affiliated agencies. (Please see next page for definitions of these terms.)

IMPORTANT NOTICE

Basic Provisions of Government Code Section 84308

- A. If you are an applicant for, or the subject of, any proceeding involving a license, permit, or other entitlement for use, you are prohibited from making a campaign contribution of more than \$250 to any board member or his or her alternate. This prohibition begins on the date your application is filed or the proceeding is otherwise initiated, and the prohibition ends three months after a final decision is rendered by the Board of Directors. In addition, no board member or alternate may solicit or accept a campaign contribution of more than \$250 from you during this period.
- B. These prohibitions also apply to your agents, and, if you are a closely held corporation, to your majority shareholder as well. These prohibitions also apply to your subcontractor(s), joint venturer(s), and partner(s) in this proceeding. Also included are parent companies and subsidiary companies directed and controlled by you, and political action committees directed and controlled by you.
- C. You must file the attached disclosure form and disclose whether you or your agent(s) have in the aggregate contributed more than \$250 to any board member or his or her alternate during the 12-month period preceding the filing of the application or the initiation of the proceeding.
- D. If you or your agent have in the aggregate contributed more than \$250 to any individual board member or his/or her alternate during the 12 months preceding the decision on the application or proceeding, that board member or alternate must disqualify himself or herself from the decision. However, disqualification is not required if the board member or alternate returns the campaign contribution within 30 days from the time the director knows, or should have known, about both the contribution and the fact that you are a party in the proceeding. The Campaign Contribution Disclosure Form should be completed and filed with your proposal, or with the first written document you file or submit after the proceeding commences.

1. A proceeding involving "a license, permit, or other entitlement for use" includes all business, professional, trade and land use licenses and permits, and all other entitlements for use, including all entitlements for land use, all contracts (other than competitively bid, labor or personal employment contracts), and all franchises.
2. Your "agent" is someone who represents you in connection with a proceeding involving a license, permit or other entitlement for use. If an individual acting as an agent is also acting in his or her capacity as an employee or member of a law, architectural, engineering, consulting firm, or similar business entity, both the business entity and the individual are "agents."
3. To determine whether a campaign contribution of more than \$250 has been made by you, campaign contributions made by you within the preceding 12 months must be aggregated with those made by your agent within the preceding 12 months or the period of the agency, whichever is shorter. Contributions made by your majority shareholder (if a closely held corporation), your subcontractor(s), your joint venturer(s), and your partner(s) in this proceeding must also be included as part of the aggregation. Campaign contributions made to different directors or their alternates are not aggregated.
4. A list of the members and alternates of the Board of Directors is attached.

This notice summarizes the major requirements of Government Code Section 84308 of the Political Reform Act and California Code of Regulations, Title 2 Sections 18438-18438.8.

ORANGE COUNTY TRANSPORTATION AUTHORITY
CAMPAIGN CONTRIBUTION DISCLOSURE FORM

RFP Number: _____ RFP Title: _____

Was a campaign contribution made to any OCTA Board Member within the preceding 12 months, regardless of dollar amount of the contribution by either the proposing firm, proposed subconsultants and/or agent/lobbyist? Yes _____ No _____

If no, please sign and date below.

If yes, please provide the following information:

Prime Contractor Firm Name: _____

Contributor or Contributor Firm's Name: _____

Contributor or Contributor Firm's Address: _____

Is Contributor:

- | | | |
|---|-----------|----------|
| <input type="radio"/> The Prime Contractor | Yes _____ | No _____ |
| <input type="radio"/> Subconsultant | Yes _____ | No _____ |
| <input type="radio"/> Agent/Lobbyist hired by Prime
to represent the Prime in this RFP | Yes _____ | No _____ |

Note: Under the State of California Government Code section 84308 and California Code of Regulations, Title 2, Section 18438, campaign contributions made by the Prime Contractor and the Prime Contractor's agent/lobbyist who is representing the Prime Contractor in this RFP must be aggregated together to determine the total campaign contribution made by the Prime Contractor.

Identify the Board Member(s) to whom you, your subconsultants, and/or agent/lobbyist made campaign contributions, the name of the contributor, the dates of contribution(s) in the preceding 12 months and dollar amount of the contribution. Each date must include the exact month, day, and year of the contribution.

Name of Board Member: _____

Name of Contributor: _____

Date(s) of Contribution(s): _____

Amount(s): _____

Name of Board Member: _____

Name of Contributor: _____

Date(s) of Contribution(s): _____

Amount(s): _____

Date: _____

Signature of Contributor _____

Print Firm Name _____

Print Name of Contributor _____

ORANGE COUNTY TRANSPORTATION AUTHORITY
AND AFFILIATED AGENCIES

Board of Directors

Lisa A. Bartlett, Chairwoman

Tim Shaw, Vice Chairman

Laurie Davies, Director

Barbara Delgleize, Director

Andrew Do, Director

Lori Donchak, Director

Michael Hennessey, Director

Steve Jones, Director

Mark A. Murphy, Director

Richard Murphy, Director

Al Murray, Director

Shawn Nelson, Director

Miguel Pulido, Director

Todd Spitzer, Director

Michelle Steel, Director

Tom Tait, Director

Greg Winterbottom, Director

STATUS OF PAST AND PRESENT CONTRACTS FORM

On the form provided below, Offeror/Bidder shall list the status of past and present contracts where the firm has either provided services as a prime vendor or a subcontractor during the past five (5) years in which the contract has been the subject of or may be involved in litigation with the contracting authority. This includes, but is not limited to, claims, settlement agreements, arbitrations, administrative proceedings, and investigations arising out of the contract.

A separate form must be completed for each contract. Offeror/Bidder shall provide an accurate contact name and telephone number for each contract and indicate the term of the contract and the original contract value. Offeror/Bidder shall also provide a brief summary and the current status of the litigation, claims, settlement agreements, arbitrations, administrative proceedings, or investigations. If the contract was terminated, list the reason for termination.

Offeror/Bidder shall have an ongoing obligation to update the Authority with any changes to the identified contracts and any new litigation, claims, settlement agreements, arbitrations, administrative proceedings, or investigations that arise subsequent to the submission of the bid. Each form must be signed by an officer of the Offeror/Bidder confirming that the information provided is true and accurate.

Project city/agency/other:	
Contact Name:	Phone:
Project Award Date:	Original Contract Value:
Term of Contract:	
(1) Litigation, claims, settlements, arbitrations, or investigations associated with contract:	
(2) Summary and Status of contract:	
(3) Summary and Status of action identified in (1):	
(4) Reason for termination, if applicable:	

By signing this Form entitled "Status of Past and Present Contracts," I am affirming that all of the information provided is true and accurate.

Name

Signature

Title

Date

PROPOSAL EXCEPTIONS AND/OR DEVIATIONS

The following form shall be completed for each technical and/or contractual exception or deviation that is submitted by Offeror for review and consideration by Authority. The exception and/or deviation must be clearly stated along with the rationale for requesting the exception and/or deviation. If no technical or contractual exceptions or deviations are submitted as part of the original proposal, Offerors are deemed to have accepted Authority's technical requirements and contractual terms and conditions set forth in the Scope of Work (Exhibit A) and Proposed Agreement (Exhibit B). Offerors will not be allowed to submit this form or any contractual exceptions and/or deviation after the proposal submittal date identified in the RFP. Exceptions and/or deviations submitted after the proposal submittal date will not be reviewed by Authority.

Offeror: _____

RFP No.: _____ RFP Title: _____

Deviation or Exception No. : _____

Check one:

- Scope of Work (Technical) _____
- Proposed Agreement (Contractual) _____

Reference Section/Exhibit: _____ Page/Article No. _____

Complete Description of Deviation or Exception:

Rationale for Requesting Deviation or Exception:

Area Below Reserved for Authority Use Only:

EXHIBIT D: SAFETY SPECIFICATIONS

**MODIFIED LEVEL 1 & 2 HEALTH, SAFETY AND ENVIRONMENTAL
SPECIFICATIONS FOR AGREEMENT C-8-2038**

PART I – GENERAL

1.1 GENERAL HEALTH, SAFETY & ENVIRONMENTAL REQUIREMENTS

- A. The Contractor, its subcontractors, suppliers, and employees have the obligation to comply with all Authority health, safety and environmental compliance department (HSEC) requirements of this safety specification, project site requirements, bus yard safety rules, as well as all federal, state, and local regulations pertaining to scope of work, contracts or agreements with the Authority. Additionally, manufacturer requirements are considered incorporated by reference as applicable to this scope of work.
- B. Observance of repeated unsafe acts or conditions, serious violation of safety standards, non-conformance of Authority health, safety and environmental compliance department (HSEC) requirements, or disregard for the intent of these safety specifications to protect people and property, by Contractor or its subcontractors may be cause for termination of scope or agreements with the Authority, at the sole discretion of the Authority.
- C. The health, safety, and environmental requirements, and references contained within this scope of work shall not be considered all-inclusive as to the hazards that might be encountered. Safe work practices shall be planned and performed, and safe conditions shall be maintained during the course of this work scope.
- D. The Authority Project Manager shall be responsible to ensure a safety orientation is conducted of known potential hazards and emergency procedures for all Contractor personnel, subcontractors, suppliers, vendors, and new employees assigned to the project prior to commencement of the project.
- E. The Contractor shall ensure that all Contractor vehicles, including those of its subcontractors, suppliers, vendors and employees are parked in designated parking areas, and comply with traffic routes, and posted traffic signs in areas other than the employee parking lots.
- F. California Code of Regulations (CCR) Title 8 Standards are minimum requirements; each Contractor is encouraged to exceed minimum requirements. When the Contractor's safety requirements exceed statutory standards, the more stringent requirements shall be achieved for the safeguard of public and workers.

G. INJURY AND ILLNESS PREVENTION PLAN

The Contractor shall submit to the Authority, a copy of their company Injury and Illness Prevention Plan (IIPP) in accordance with California Code of Regulations (CCR) Title 8, Section 3203. The intent and elements of the IIPP

shall be implemented and enforced by the Contractor and its sub-tier contractors, suppliers, and vendors.

- H. Contractor shall provide a copy of the Policy or Program of Company's Substance Abuse Prevention Policy that complies with the 1988 Drug Free Workplace Act.

1.2 HAZARD COMMUNICATION

- A. Contractor shall comply with CCR Title 8, Section 5194 Hazard Communication Standard. Prior to use on Authority property and/or project work areas Contractor shall provide the Authority Project Manager copies of MSDS for all applicable products used, if any.

- 1.3 All chemicals including paint, solvents, detergents and similar substances shall comply with South Coast Air Quality Management District (SCAQMD) rules 103, 1113, and 1171.

1.4 HEAT ILLNESS PREVENTION PROGRAM

- B. Contractor shall provide a copy of their Company Heat Illness Prevention Program in accordance with CCR Title 8 Standards, Section 3395, Heat Illness Prevention.

1.5 INCIDENT NOTIFICATION AND INVESTIGATION

- A. The Authority shall be promptly notified of any of the following types of incidents:
 - 1. Damage to Authority property (or incidents involving third party property damage);
 - 2. Reportable and/or Recordable injuries (as defined by the U. S. Occupational Safety and Health Administration);
 - 3. Incidents impacting the environment, i.e. spills or releases on Authority property.
- B. Notifications shall be made to Authority representatives, employees and/or agents. This includes incidents occurring to contractors, vendors, visitors, or members of the general public that arise from the performance of Authority contract work. An immediate verbal notice followed by a written incident investigation report shall be submitted to Authority's Project Manager within 24 hours of the incident.
- C. A final written incident investigative report shall be submitted within seven (7) calendar days, and include the following information. The current status of anyone injured, photos of the incident area, detailed description of what happened and the contributing factors that lead to the incident occurrence, a copy of the company policy or procedure associated with the incident and evaluation of effectiveness, copy of the task planning documentation, and the corrective action initiated to prevent recurrence. This information shall be

considered the minimum elements required for a comprehensive incident report acceptable to OCTA.

1.6 PERSONAL PROTECTIVE EQUIPMENT

- A. The Contractor, its subcontractors, suppliers, and employees are required to comply with applicable personal protective equipment (PPE) requirements while performing work at any Authority project or property. Generally minimum PPE requirements include eye protection; hearing protection, head protection, class 2 safety reflective vests, and appropriate footwear.
- B. The Contractor, its subcontractors, suppliers, and employees are required to provide their own PPE, including eye, head, foot, and hand protection, safety vests, or other PPE required to perform their work safely on Authority projects or property. The Authority requires eye protection on construction projects and work areas that meet ANSI Z-87.1 Standards.

PART II – SPECIFIC REQUIREMENTS – FIELD ACTIVITIES

Level 2 Safety Specification Requirements for Field Activity Tasks

2.0 DESIGNATED SAFETY REPRESENTATIVE

- A. Before beginning on-site activities, the Contractor shall designate an On-site HSE Representative. This person shall be a Competent or Qualified Individual as defined by the Occupational, Safety, and Health Administration (OSHA), familiar with applicable CCR Title 8 Standards, and has the authority to affect changes in work procedures that may have associated schedule and budget impacts.
- B. The Contractor shall provide the Authority's Project Manager a resume outlining the qualifications, or job experience of Contractor's On-Site HSE Representative assigned to the project. The Contractor's On-Site HSE Representative for all Authority projects is subject to acceptance by the Authority Project Manager and the HSEC Department Manager. All contact information of the On-Site HSE Representative (name, phone, and fax and pager/cell phone number) shall be provided to the Authority Project Manager.
- C. The Contractor's On-Site HSE Representative shall have, as a minimum, a certification from the Board of Certified Safety Professionals (i.e., Safety Trained Supervisor Construction (STSC), and five (5) years of experience of enforcing HSE compliance on similar projects. The Authority reserves the right to allow for an exception of these minimum qualification requirements for unforeseen circumstances, at the sole discretion of the Authority Project Manager and the HSEC Department Manager.
- D. A Competent Individual means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

2.1 ORIENTATION

- A. The Contractor shall conduct and document a project site safety orientation for all Contractor personnel, subcontractors, suppliers, vendors, and new employees assigned to the project prior to performing any work on Authority projects. The safety orientation at a minimum shall include, as applicable, Personal Protection Equipment (PPE) requirements, eye protection, ANSI class 2 reflective vests, designated smoking, eating, and parking areas, traffic speed limit and routing, cell phone policy, and barricade requirements. When required by scope, additional orientation shall include fall protection, energy isolation/lock-out/tag-out (LOTO), confined space, hot work permit, security requirements, and similar project safety requirements.
- B. A Job Hazard Analysis (JHA) shall be prepared for the field activities performed and signed and dated by the Contractor's project manager, Contractor's HSE Representative and all employees of the work crew prior to beginning each task.
- C. Copies of orientation documents shall be provided to the Authority Project Manager within 72 hours upon request.

2.2 SITE HSE ORIENTATION

- A. The Contractor shall conduct and document a project site safety orientation for all Contractor personnel, subcontractors, suppliers, vendors, and new employees assigned to the project prior to performing any work on Authority projects. The safety orientation, at a minimum, shall include, as applicable, Personal Protection Equipment (PPE) requirements, eye protection, ANSI class 2 reflective vests, designated smoking, eating, and parking areas, traffic speed limit and routing, cell phone policy, and barricade requirements. When required by scope, additional orientation shall include fall protection, energy isolation/lock-out/tag-out (LOTO), confined space, hot work permit, security requirements, and similar project safety requirements.
- B. Copies of orientation documents shall be provided to the Authority Project Manager within 72 hours upon request.

2.3 TRAINING DOCUMENTATION

- A. To ensure that each employee is qualified to perform their assigned work, when applicable to scope work, Contractor shall verify training documentation is in place, prior to and during contract scope, and make available to the Authority, upon request, within 72 hours. Training may be required by the Authority or CCR Title 8 Standards and required for activity on Authority's property and/or Authority projects. Contractor shall provide to Authority, upon request, within 72 hours.

PART IV - REFERENCES

- A. CCR Title 8 Standards (Cal/OSHA)
- B. CFR Including 1910 and 1926 Standards
- C. NFPA, NEC, ANSI, NIOSH Standards
- D. Construction Industry Institute (CII)
- E. Cal-Trans Construction Safety Manual

END