CITY OF COSTA MESA PROFESSIONAL SERVICES AGREEMENT WITH ALBERT GROVER & ASSOCIATES

THIS AGREEMENT is made and entered into this 6th day of May, 2015 ("Effective Date"), by and between the CITY OF COSTA MESA, a municipal corporation ("City"), and ALBERT GROVER & ASSOCIATES, a California corporation ("Consultant"):

WITNESSETH:

- A. WHEREAS, City proposes to utilize the services of Consultant as an independent contractor to provide traffic signal engineering services, as more fully described herein; and
- B. WHEREAS, Consultant represents that it has that degree of specialized expertise contemplated within California Government Code Section 37103, and holds all necessary licenses to practice and perform the services herein contemplated; and
- C. WHEREAS, City and Consultant desire to contract for the specific services described in Exhibit "A" (the "Project") and desire to set forth their rights, duties and liabilities in connection with the services to be performed; and
- D. WHEREAS, no official or employee of City has a financial interest, within the provisions of Sections 1090-1092 of the California Government Code, in the subject matter of this Agreement.

NOW, THEREFORE, for and in consideration of the mutual covenants and conditions contained herein, the parties hereby agree as follows:

1.0. SERVICES PROVIDED BY CONSULTANT

- 1.1. <u>Scope of Services</u>. Consultant shall provide the professional services described in the City's Request for Proposal ("RFP"), attached hereto as Exhibit "A," and Consultant's Response to City's RFP (the "Response") attached hereto as Exhibit "B," both incorporated herein by this reference.
- 1.2. <u>Professional Practices</u>. All professional services to be provided by Consultant pursuant to this Agreement shall be provided by personnel experienced in their respective fields and in a manner consistent with the standards of care, diligence and skill ordinarily exercised by professional consultants in similar fields and circumstances in accordance with sound professional practices. Consultant also warrants that it is familiar with all laws that may affect its performance of this Agreement and shall advise City of any changes in any laws that may affect Consultant's performance of this Agreement.
- 1.3. <u>Performance to Satisfaction of City</u>. Consultant agrees to perform all the work to the complete satisfaction of the City and within the hereinafter specified. Evaluations of the work will be done by the City's Chief Executive Officer ("City CEO") or his or her designee. If the quality of work is not satisfactory, City in its discretion has the right to:
 - (a) Meet with Consultant to review the quality of the work and resolve the matters of concern;

- (b) Require Consultant to repeat the work at no additional fee until it is satisfactory; and/or
- (c) Terminate the Agreement as hereinafter set forth.
- Agreement in compliance with all applicable Federal and California employment laws, including, but not limited to, those laws related to minimum hours and wages; occupational health and safety; fair employment and employment practices; workers' compensation insurance and safety in employment; and all other Federal, State and local laws and ordinances applicable to the services required under this Agreement. Consultant shall indemnify and hold harmless City from and against all claims, demands, payments, suits, actions, proceedings, and judgments of every nature and description including attorneys' fees and costs, presented, brought, or recovered against City for, or on account of any liability under any of the above-mentioned laws, which may be incurred by reason of Consultant's performance under this Agreement.
- 1.5. <u>Non-discrimination</u>. In performing this Agreement, Consultant shall not engage in, nor permit its agents to engage in, discrimination in employment of persons because of their race, religion, color, national origin, ancestry, age, physical handicap, medical condition, marital status, sexual gender or sexual orientation, except as permitted pursuant to Section 12940 of the Government Code.
- 1.6. <u>Non-Exclusive Agreement</u>. Consultant acknowledges that City may enter into agreements with other consultants for services similar to the services that are subject to this Agreement or may have its own employees perform services similar to those services contemplated by this Agreement.
- 1.7. <u>Delegation and Assignment</u>. This is a personal service contract, and the duties set forth herein shall not be delegated or assigned to any person or entity without the prior written consent of City. Consultant may engage a subcontractor(s) as permitted by law and may employ other personnel to perform services contemplated by this Agreement at Consultant's sole cost and expense.
- 1.8. <u>Confidentiality</u>. Employees of Consultant in the course of their duties may have access to financial, accounting, statistical, and personnel data of private individuals and employees of City. Consultant covenants that all data, documents, discussion, or other information developed or received by Consultant or provided for performance of this Agreement are deemed confidential and shall not be disclosed by Consultant without written authorization by City. City shall grant such authorization if disclosure is required by law. All City data shall be returned to City upon the termination of this Agreement. Consultant's covenant under this Section shall survive the termination of this Agreement.

2.0. COMPENSATION AND BILLING

- 2.1. <u>Compensation</u>. Consultant shall be paid in accordance with the fee schedule set forth in Exhibit "C," attached hereto and made a part of this Agreement (the "Fee Schedule"). Consultant's total compensation shall not exceed Six Hundred Twenty-Nine Thousand, Eight Hundred Forty-Nine Dollars (\$629,849.00).
- 2.2. <u>Additional Services</u>. Consultant shall not receive compensation for any services provided outside the scope of services specified in the Consultant's Proposal unless the City or

the Project Manager for this Project, prior to Consultant performing the additional services, approves such additional services in writing. It is specifically understood that oral requests and/or approvals of such additional services or additional compensation shall be barred and are unenforceable.

- 2.3. Method of Billing. Consultant may submit invoices to the City for approval on a progress basis, but no more often than two times a month. Said invoice shall be based on the total of all Consultant's services which have been completed to City's sole satisfaction. City shall pay Consultant's invoice within forty-five (45) days from the date City receives said invoice. Each invoice shall describe in detail, the services performed, the date of performance, and the associated time for completion. Any additional services approved and performed pursuant to this Agreement shall be designated as "Additional Services" and shall identify the number of the authorized change order, where applicable, on all invoices.
- 2.4. Records and Audits. Records of Consultant's services relating to this Agreement shall be maintained in accordance with generally recognized accounting principles and shall be made available to City or its Project Manager for inspection and/or audit at mutually convenient times for a period of three (3) years from the Effective Date.

3.0. TIME OF PERFORMANCE

- 3.1. <u>Commencement and Completion of Work</u>. The professional services to be performed pursuant to this Agreement shall commence within five (5) days from the Effective Date of this Agreement. Said services shall be performed in strict compliance with the Project Schedule approved by City as set forth in Exhibit "D," attached hereto and incorporated herein by this reference. The Project Schedule may be amended by mutual agreement of the parties. Failure to commence work in a timely manner and/or diligently pursue work to completion may be grounds for termination of this Agreement.
- 3.2. Excusable Delays. Neither party shall be responsible for delays or lack of performance resulting from acts beyond the reasonable control of the party or parties. Such acts shall include, but not be limited to, acts of God, fire, strikes, material shortages, compliance with laws or regulations, riots, acts of war, or any other conditions beyond the reasonable control of a party.

4.0. TERM AND TERMINATION

- 4.1. <u>Term.</u> This Agreement shall commence on the Effective Date and continue for a period of 60 months, ending on May 6, 2020, unless previously terminated as provided herein or as otherwise agreed to in writing by the parties.
- 4.2. <u>Notice of Termination</u>. The City reserves and has the right and privilege of canceling, suspending or abandoning the execution of all or any part of the work contemplated by this Agreement, with or without cause, at any time, by providing written notice to Consultant. The termination of this Agreement shall be deemed effective upon receipt of the notice of termination. In the event of such termination, Consultant shall immediately stop rendering services under this Agreement unless directed otherwise by the City.
- 4.3. <u>Compensation</u>. In the event of termination, City shall pay Consultant for reasonable costs incurred and professional services satisfactorily performed up to and including the date of City's written notice of termination. Compensation for work in progress shall be prorated based on the percentage of work completed as of the effective date of termination in

accordance with the fees set forth herein. In ascertaining the professional services actually rendered hereunder up to the effective date of termination of this Agreement, consideration shall be given to both completed work and work in progress, to complete and incomplete drawings, and to other documents pertaining to the services contemplated herein whether delivered to the City or in the possession of the Consultant.

4.4. <u>Documents</u>. In the event of termination of this Agreement, all documents prepared by Consultant in its performance of this Agreement including, but not limited to, finished or unfinished design, development and construction documents, data studies, drawings, maps and reports, shall be delivered to the City within ten (10) days of delivery of termination notice to Consultant, at no cost to City. Any use of uncompleted documents without specific written authorization from Consultant shall be at City's sole risk and without liability or legal expense to Consultant.

5.0. INSURANCE

- 5.1. <u>Minimum Scope and Limits of Insurance</u>. Consultant shall obtain, maintain, and keep in full force and effect during the life of this Agreement all of the following minimum scope of insurance coverages with an insurance company admitted to do business in California, rated "A," Class X, or better in the most recent Best's Key Insurance Rating Guide, and approved by City:
 - (a) Commercial general liability, including premises-operations, products/completed operations, broad form property damage, blanket contractual liability, independent contractors, personal injury or bodily injury with a policy limit of not less than One Million Dollars (\$1,000,000.00), combined single limits, per occurrence. If such insurance contains a general aggregate limit, it shall apply separately to this Agreement or shall be twice the required occurrence limit.
 - (b) Business automobile liability for owned vehicles, hired, and non-owned vehicles, with a policy limit of not less than One Million Dollars (\$1,000,000.00), combined single limits, per occurrence for bodily injury and property damage.
 - (c) Workers' compensation insurance as required by the State of California. Consultant agrees to waive, and to obtain endorsements from its workers' compensation insurer waiving subrogation rights under its workers' compensation insurance policy against the City, its officers, agents, employees, and volunteers arising from work performed by Consultant for the City and to require each of its subcontractors, if any, to do likewise under their workers' compensation insurance policies.
 - (d) Professional errors and omissions ("E&O") liability insurance with policy limits of not less than One Million Dollars (\$1,000,000.00), combined single limits, per occurrence and aggregate. Architects' and engineers' coverage shall be endorsed to include contractual liability. If the policy is written as a "claims made" policy, the retro date shall be prior to the start of the contract work. Consultant shall obtain and maintain, said E&O liability insurance during the life of this Agreement and for three years after completion of the work hereunder.

- 5.2. <u>Endorsements</u>. The commercial general liability insurance policy and business automobile liability policy shall contain or be endorsed to contain the following provisions:
 - (a) Additional insureds: "The City of Costa Mesa and its elected and appointed boards, officers, officials, agents, employees, and volunteers are additional insureds with respect to: liability arising out of activities performed by or on behalf of the Consultant pursuant to its contract with the City; products and completed operations of the Consultant; premises owned, occupied or used by the Consultant; automobiles owned, leased, hired, or borrowed by the Consultant."
 - (b) Notice: "Said policy shall not terminate, be suspended, or voided, nor shall it be cancelled, nor the coverage or limits reduced, until thirty (30) days after written notice is given to City.
 - (c) Other insurance: "The Consultant's insurance coverage shall be primary insurance as respects the City of Costa Mesa, its officers, officials, agents, employees, and volunteers. Any other insurance maintained by the City of Costa Mesa shall be excess and not contributing with the insurance provided by this policy."
 - (d) Any failure to comply with the reporting provisions of the policies shall not affect coverage provided to the City of Costa Mesa, its officers, officials, agents, employees, and volunteers.
 - (e) The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- 5.3. <u>Deductible or Self Insured Retention</u>. If any of such policies provide for a deductible or self-insured retention to provide such coverage, the amount of such deductible or self-insured retention shall be approved in advance by City. No policy of insurance issued as to which the City is an additional insured shall contain a provision which requires that no insured except the named insured can satisfy any such deductible or self-insured retention.
- 5.4. <u>Certificates of Insurance</u>. Consultant shall provide to City certificates of insurance showing the insurance coverages and required endorsements described above, in a form and content approved by City, prior to performing any services under this Agreement. The certificates of insurance shall be attached hereto as Exhibit "E" and incorporated herein by this reference.
- 5.5. <u>Non-limiting</u>. Nothing in this Section shall be construed as limiting in any way, the indemnification provision contained in this Agreement, or the extent to which Consultant may be held responsible for payments of damages to persons or property.

6.0. GENERAL PROVISIONS

6.1. Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to any matter referenced herein and supersedes any and all other prior writings and oral negotiations. This Agreement may be modified only in writing, and signed by the parties in interest at the time of such modification. The terms of this Agreement shall prevail

over any inconsistent provision in any other contract document appurtenant hereto, including exhibits to this Agreement.

6.2. <u>Representatives</u>. The City CEO or his or her designee shall be the representative of City for purposes of this Agreement and may issue all consents, approvals, directives and agreements on behalf of the City, called for by this Agreement, except as otherwise expressly provided in this Agreement.

Consultant shall designate a representative for purposes of this Agreement who shall be authorized to issue all consents, approvals, directives and agreements on behalf of Consultant called for by this Agreement, except as otherwise expressly provided in this Agreement.

6.3. <u>Project Managers</u>. City shall designate a Project Manager to work directly with Consultant in the performance of this Agreement.

Consultant shall designate a Project Manager who shall represent it and be its agent in all consultations with City during the term of this Agreement. Consultant or its Project Manager shall attend and assist in all coordination meetings called by City.

6.4. Notices. Any notices, documents, correspondence or other communications concerning this Agreement or the work hereunder may be provided by personal delivery, facsimile or mail and shall be addressed as set forth below. Such communication shall be deemed served or delivered: a) at the time of delivery if such communication is sent by personal delivery; b) at the time of transmission if such communication is sent by facsimile; and c) 48 hours after deposit in the U.S. Mail as reflected by the official U.S. postmark if such communication is sent through regular United States mail.

IF TO CONSULTANT:

IF TO CITY:

Albert Grover & Associates 211 E. Imperial Highway, Ste. 208 Fullerton, CA 92835 Tel: (714) 992-2990

Tel: (714) 992-2990 Fax: (714) 992-2883 Attn: Chalap Sadam City of Costa Mesa

77 Fair Drive

Costa Mesa, CA 92626

Tel: (714) 754-5183 Fax: (714) 754-5166

Attn: Pritam Deshmukh

- 6.5. <u>Drug-free Workplace Policy</u>. Consultant shall provide a drug-free workplace by complying with all provisions set forth in City's Council Policy 100-5, attached hereto as Exhibit "F" and incorporated herein by reference. Consultant's failure to conform to the requirements set forth in Council Policy 100-5 shall constitute a material breach of this Agreement and shall be cause for immediate termination of this Agreement by City.
- 6.6. Attorneys' Fees. In the event that litigation is brought by any party in connection with this Agreement, the prevailing party shall be entitled to recover from the opposing party all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing party in the exercise of any of its rights or remedies hereunder or the enforcement of any of the terms, conditions, or provisions hereof.
- 6.7. <u>Governing Law.</u> This Agreement shall be governed by and construed under the laws of the State of California without giving effect to that body of laws pertaining to conflict of laws. In the event of any legal action to enforce or interpret this Agreement, the parties hereto

agree that the sole and exclusive venue shall be a court of competent jurisdiction located in Orange County, California.

- 6.8. <u>Assignment</u>. Consultant shall not voluntarily or by operation of law assign, transfer, sublet or encumber all or any part of Consultant's interest in this Agreement without City's prior written consent. Any attempted assignment, transfer, subletting or encumbrance shall be void and shall constitute a breach of this Agreement and cause for termination of this Agreement. Regardless of City's consent, no subletting or assignment shall release Consultant of Consultant's obligation to perform all other obligations to be performed by Consultant hereunder for the term of this Agreement.
- Indemnification and Hold Harmless. Consultant agrees to defend, indemnify, 6.9. hold free and harmless the City, its elected officials, officers, agents and employees, at Consultant's sole expense, from and against any and all claims, actions, suits or other legal proceedings brought against the City, its elected officials, officers, agents and employees arising out of the performance of the Consultant, its employees, and/or authorized subcontractors, of the work undertaken pursuant to this Agreement. The defense obligation provided for hereunder shall apply without any advance showing of negligence or wrongdoing by the Consultant, its employees, and/or authorized subcontractors, but shall be required whenever any claim, action, complaint, or suit asserts as its basis the negligence, errors, omissions or misconduct of the Consultant, its employees, and/or authorized subcontractors. and/or whenever any claim, action, complaint or suit asserts liability against the City, its elected officials, officers, agents and employees based upon the work performed by the Consultant, its employees, and/or authorized subcontractors under this Agreement, whether or not the Consultant, its employees, and/or authorized subcontractors are specifically named or otherwise asserted to be liable. Notwithstanding the foregoing, the Consultant shall not be liable for the defense or indemnification of the City for claims, actions, complaints or suits arising out of the sole active negligence or willful misconduct of the City. This provision shall supersede and replace all other indemnity provisions contained either in the City's specifications or Consultant's Proposal, which shall be of no force and effect.
- 6.10. Independent Contractor. Consultant is and shall be acting at all times as an independent contractor and not as an employee of City. Consultant shall have no power to incur any debt, obligation, or liability on behalf of City or otherwise act on behalf of City as an agent. Neither City nor any of its agents shall have control over the conduct of Consultant or any of Consultant's employees, except as set forth in this Agreement. Consultant shall not, at any time, or in any manner, represent that it or any of its or employees are in any manner agents or employees of City. Consultant shall secure, at its sole expense, and be responsible for any and all payment of Income Tax, Social Security, State Disability Insurance Compensation. Unemployment Compensation, and other payroll deductions for Consultant and its officers, agents, and employees, and all business licenses, if any are required, in connection with the services to be performed hereunder. Consultant shall indemnify and hold City harmless from any and all taxes, assessments, penalties, and interest asserted against City by reason of the independent contractor relationship created by this Agreement. Consultant further agrees to indemnify and hold City harmless from any failure of Consultant to comply with the applicable worker's compensation laws. City shall have the right to offset against the amount of any fees due to Consultant under this Agreement any amount due to City from Consultant as a result of Consultant's failure to promptly pay to City any reimbursement or indemnification arising under this paragraph.
- 6.11. PERS Eligibility Indemnification. In the event that Consultant or any employee, agent, or subcontractor of Consultant providing services under this Agreement claims or is

determined by a court of competent jurisdiction or the California Public Employees Retirement System (PERS) to be eligible for enrollment in PERS as an employee of the City, Consultant shall indemnify, defend, and hold harmless City for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City.

Notwithstanding any other agency, state or federal policy, rule, regulation, law or ordinance to the contrary, Consultant and any of its employees, agents, and subcontractors providing service under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any claims to, any compensation, benefit, or any incident of employment by City, including but not limited to eligibility to enroll in PERS as an employee of City and entitlement to any contribution to be paid by City for employer contribution and/or employee contributions for PERS benefits.

- 6.12. <u>Cooperation</u>. In the event any claim or action is brought against City relating to Consultant's performance or services rendered under this Agreement, Consultant shall render any reasonable assistance and cooperation which City might require.
- 6.13. Ownership of Documents. All findings, reports, documents, information and data including, but not limited to, computer tapes or discs, files and tapes furnished or prepared by Consultant or any of its subcontractors in the course of performance of this Agreement, shall be and remain the sole property of City. Consultant agrees that any such documents or information shall not be made available to any individual or organization without the prior consent of City. Any use of such documents for other projects not contemplated by this Agreement, and any use of incomplete documents, shall be at the sole risk of City and without liability or legal exposure to Consultant. City shall indemnify and hold harmless Consultant from all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from City's use of such documents for other projects not contemplated by this Agreement or use of incomplete documents furnished by Consultant. Consultant shall deliver to City any findings, reports, documents, information, data, in any form, including but not limited to, computer tapes, discs, files audio tapes or any other Project related items as requested by City or its authorized representative, at no additional cost to the City.
- 6.14. Public Records Act Disclosure. Consultant has been advised and is aware that this Agreement and all reports, documents, information and data, including, but not limited to, computer tapes, discs or files furnished or prepared by Consultant, or any of its subcontractors, pursuant to this Agreement and provided to City may be subject to public disclosure as required by the California Public Records Act (California Government Code Section 6250 *et seq.*). Exceptions to public disclosure may be those documents or information that qualify as trade secrets, as that term is defined in the California Government Code Section 6254.7, and of which Consultant informs City of such trade secret. The City will endeavor to maintain as confidential all information obtained by it that is designated as a trade secret. The City shall not, in any way, be liable or responsible for the disclosure of any trade secret including, without limitation, those records so marked if disclosure is deemed to be required by law or by order of the Court.
- 6.15. <u>Conflict of Interest</u>. Consultant and its officers, employees, associates and subconsultants, if any, will comply with all conflict of interest statutes of the State of California applicable to Consultant's services under this agreement, including, but not limited to, the Political Reform Act (Government Code Sections 81000, *et seq.*) and Government Code Section 1090. During the term of this Agreement, Consultant and its officers, employees, associates and subconsultants shall not, without the prior written approval of the City

Representative, perform work for another person or entity for whom Consultant is not currently performing work that would require Consultant or one of its officers, employees, associates or subconsultants to abstain from a decision under this Agreement pursuant to a conflict of interest statute.

- 6.16. Responsibility for Errors. Consultant shall be responsible for its work and results under this Agreement. Consultant, when requested, shall furnish clarification and/or explanation as may be required by the City's representative, regarding any services rendered under this Agreement at no additional cost to City. In the event that an error or omission attributable to Consultant occurs, then Consultant shall, at no cost to City, provide all necessary design drawings, estimates and other Consultant professional services necessary to rectify and correct the matter to the sole satisfaction of City and to participate in any meeting required with regard to the correction.
- 6.17. <u>Prohibited Employment</u>. Consultant will not employ any regular employee of City while this Agreement is in effect.
- 6.18. Order of Precedence. In the event of an inconsistency in this Agreement and any of the attached Exhibits, the terms set forth in this Agreement shall prevail. If, and to the extent this Agreement incorporates by reference any provision of any document, such provision shall be deemed a part of this Agreement. Nevertheless, if there is any conflict among the terms and conditions of this Agreement and those of any such provision or provisions so incorporated by reference, this Agreement shall govern over the document referenced.
- 6.19. <u>Costs</u>. Each party shall bear its own costs and fees incurred in the preparation and negotiation of this Agreement and in the performance of its obligations hereunder except as expressly provided herein.
- 6.20. <u>No Third Party Beneficiary Rights</u>. This Agreement is entered into for the sole benefit of City and Consultant and no other parties are intended to be direct or incidental beneficiaries of this Agreement and no third party shall have any right in, under or to this Agreement.
- 6.21. <u>Headings</u>. Paragraphs and subparagraph headings contained in this Agreement are included solely for convenience and are not intended to modify, explain or to be a full or accurate description of the content thereof and shall not in any way affect the meaning or interpretation of this Agreement.
- 6.22. <u>Construction</u>. The parties have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises with respect to this Agreement, this Agreement shall be construed as if drafted jointly by the parties and in accordance with its fair meaning. There shall be no presumption or burden of proof favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.
- 6.23. <u>Amendments</u>. Only a writing executed by the parties hereto or their respective successors and assigns may amend this Agreement.
- 6.24. <u>Waiver</u>. The delay or failure of either party at any time to require performance or compliance by the other of any of its obligations or agreements shall in no way be deemed a waiver of those rights to require such performance or compliance. No waiver of any provision of this Agreement shall be effective unless in writing and signed by a duly authorized

representative of the party against whom enforcement of a waiver is sought. The waiver of any right or remedy in respect to any occurrence or event shall not be deemed a waiver of any right or remedy in respect to any other occurrence or event, nor shall any waiver constitute a continuing waiver.

- 6.25. Severability. If any provision of this Agreement is determined by a court of competent jurisdiction to be unenforceable in any circumstance, such determination shall not affect the validity or enforceability of the remaining terms and provisions hereof or of the offending provision in any other circumstance. Notwithstanding the foregoing, if the value of this Agreement, based upon the substantial benefit of the bargain for any party, is materially impaired, which determination made by the presiding court or arbitrator of competent jurisdiction shall be binding, then both parties agree to substitute such provision(s) through good faith negotiations.
- 6.26. <u>Counterparts</u>. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original. All counterparts shall be construed together and shall constitute one agreement.
- 6.27. <u>Corporate Authority</u>. The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by doing so the parties hereto are formally bound to the provisions of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by and through their respective authorized officers, as of the date first above written.

CITY OF COSTA MESA, A municipal corporation REDACTED		
Mayor	Date:	5/0/15
CONSULTANT REDACTED		
Signature	Date:	4/22/15
CHALAP SADAM, Vice President		
Name and Title REDACTED		
Social Security or Taxpayer ID Number		

ATTEST: REDACTED	
City Clerk	
APPROVED AS TO FORM:	
City Attorney	Date: 01 24 15
APPROVED AS TO INSURANCE REDACTED	
Risk Management	Date: 4/24/15
APPROVED AS TO CONTENT: REDACTED	
	Date: 4/23/15
Pritam Deshmukh, Project Manager	
DEPARTMENTAL APPROVAL REDACTED	
	Date:
Ernesto Munoz, Rublic Services Directo	r

EXHIBIT A REQUEST FOR PROPOSALS

CITY OF COSTA MESA



CALIFORNIA 92628-1200

P.O. Box 1200

FROM THE OFFICE OF THE TRANSPORTATION SERVICES MANAGER

January 5, 2015

SUBJECT: REQUEST FOR PROPOSALS FOR SUNFLOWER AVENUE TRAFFIC

SIGNAL COORDINATION PROJECT

Dear Consultant:

The City of Costa Mesa is requesting proposals from Traffic Engineering Services Consultants (Consultant) to develop traffic signal infrastructure and timing improvements for the Sunflower Avenue Corridor. The scope of work is described in detail in the attached Request for Proposals (RFP).

Tentative Schedule of Events from Issuance of the RFP to Award of Contract:

RFP Distributed January 5, 2015 Proposals Due February 6, 2015

Consultant Interviews (if needed) Week of February 23, 2015

Consultant Selection March 6, 2015
City Council Authorization April 7, 2015

City Point of Contact:

The primary contact regarding this RFP is Pritam Deshmukh, Associate Civil Engineer, at (714) 754-5183. Proposals and all written inquiries related to this RFP are to be submitted to:

Pritam Deshmukh, Associate Civil Engineer Transportation Services Division City of Costa Mesa 77 Fair Drive Costa Mesa, CA 92626

Proposal Submittal and Closing Date:

The consultants must provide their fee proposals in a separate sealed envelope. All proposals must be delivered to the above address, and will become part of the official files of the City and cannot be returned. The City of Costa Mesa's professional services standard agreement and sample certificate of insurance are included as Exhibit C & D. Should your firm be interested, please submit to the City of Costa Mesa, Transportation Services Division, 4th Floor, City Hall, 77 Fair Drive, Costa Mesa, CA 92626.

Four (4) copies of each Consultant's proposal must be received by the City of Costa Mesa no later than 5:00 p.m. on Friday, February 6, 2015. Proposals not received by the indicated time and date will not be accepted. No faxed copies or postmarks will be accepted in lieu of actual delivery.

Sincerely,

REDACTED

RAJA SETHURAMAN, Manager Transportation Services

Ernesto Munoz, Public Services Director
 Pritam Deshmukh, Associate Civil Engineer

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I. GENERAL INFORMATION

A. <u>INTRODUCTION</u>

The City of Costa Mesa is requesting proposals to develop traffic signal infrastructure and coordination improvements for the Sunflower Avenue Corridor from Main Street to Hyland Avenue, with 14 signals within the City of Costa Mesa. A project location map for this corridor is included in Exhibit A-1. The proposed traffic signal infrastructure and coordination improvements for the project corridor are funded in part by Orange County Transportation Authority's (OCTA) Project P grant funds.

B. GENERAL SCOPE OF WORK

The general project scope of work includes:

- Assessment of traffic signals and arterial network conditions including signal phasing, traffic and pedestrian volumes, vehicle speeds, roadway capacity, and operational efficiency.
- ❖ Providing a concise Design Report Memorandum for suggested ITS elements such as CCTVs, signal systems, communication network, etc; functionality of the interconnect system; and other relevant information.
- ❖ Modeling of arterial and intersection capacity/progression and joint preparation of signal analysis and coordination timing plans for all intersections along the corridor and submitting them to the City for review and approval.
- ❖ Implementation and fine-tuning of signal coordination plans including compilation of Before/After Studies documenting project improvements, and annual assessment for two (2) years.
- ❖ Development of Project record drawings for the purchase and installation of necessary traffic signal controllers, controller cabinets, traffic signal improvements, communication equipment, and Closed Circuit Television Cameras (CCTV) and Intelligent Transportation System (ITS) equipment and elements.
- ❖ Work to be performed includes all necessary work for traffic signals within the City, including integration in the City of Costa Mesa's Traffic Management Center (TMC) and MIST System. The preliminary equipment listing for the intersections along the project corridor is included as Exhibit A-2.

C. GENERAL WORK PROGRAM

Signal timing along the project corridor requires updating to meet current traffic demands and patterns. The goals of the project are to update timing, and integrate the traffic signals, communication, and ITS components optimally at the City's TMC.

Existing field conditions and signal timing plans for intersection and corridor operations shall be evaluated and conditions documented. The consultant shall model, analyze, and optimize

individual intersection conditions and submit for review by the City prior to analysis of arterial coordination studies. The Consultant shall use Synchro 8 for the analysis. The intersection and arterial signal analysis and optimization approach and all software programs to be utilized by the Consultant shall be described in detail in the proposal. New timings shall be developed, implemented, tested, and refined to optimize signal coordination and vehicle progression. A minimum of five (5) separate timing plans per intersection shall be prepared covering the A.M., P.M. peak periods, midday, night, and weekend. Full scale "draft" Time-Space Diagrams (500' per inch horizontal/50 second per inch vertical) shall be prepared for each timing pattern and presented to City staff for review, with final diagrams prepared documenting final coordination timings. The timing study shall account for the network-wide coordination system and respective impact/benefits to cross street progression. Network traffic flow shall not be compromised. Timing plans shall be submitted in a format that allows them to be uploaded to the City's Synchro 8 and MIST programs.

The professional services scope of work is intended as a "Turnkey" project. All tasks shall be coordinated to effectively develop interrelated project elements, and tasks shall not be advanced until preliminary requirements are addressed and clear direction established. The consultant shall have total responsibility for the accuracy and completeness of all work and services required for this project. Quality Control shall be consistently and thoroughly applied throughout project development. Assigned QA/QC staff shall be technically well qualified to conduct the appropriate level of oversight, and demonstrate a concerted commitment to provide a high quality product.

Project development meetings shall be held biweekly with concise written records prepared on all meetings and activities. The consultant will be responsible for all coordination with participating agencies, preparing meeting agendas, minutes, and presentation materials. A project schedule shall be prepared itemizing all activities and subtasks to support project milestones. The schedule shall be in the form of a bar chart and show deliverables and other relevant data needed for the control of work. A copy of the schedule and monthly updates shall be furnished to the City Project Manager. The proposed scope of work is based on a Measure M2 Program P grant award received from OCTA. The consultant shall retain detailed accounting records to fully meet OCTA accounting and audit oversight.

Consultants proposing on this project shall clearly demonstrate the ability and commitment to accelerate project completion with promptness and efficiency. Accordingly, the consultant shall commit all necessary resources to achieve expeditious completion. Firms considering proposal submittals are requested to have in-house technical expertise to fully and professionally address and facilitate all aspects of the project. The selected consulting firm shall maintain the same project manager throughout the duration of the project, as specified in the proposal and approved by the City.

The description of work defines the general project requirements. Associated tasks and provisions not specifically defined herein are requested to be fully addressed in the proposal. The tasks and fee shall reflect the mandatory combined elements for the overall project, route assessment, signal coordination, before and after studies, and address the equipment identified needs. All tasks shall be undertaken and completed within the proposed "Not to Exceed" contract fee.

D. PRESENTATION TO STAKEHOLDERS

The consultant will be required to present the results of the study at a City Council Study Session and at the ITS Roundtable meetings at OCTA.

E. CONTENT OF PROPOSAL

It is requested that the following be submitted with your proposal:

- A narrative understanding of the project, any suggestions you might have to expedite the project or special concerns that the City should be informed about. Identify all tasks necessary to meet the intended project objective and achieve project completion within the proposal timeframes.
- Production of Plans, Specifications and Estimate shall conform to the details listed in Exhibit B, where the consultant proposes to produce plans. The approach should specifically address the manner in which the consultant plans to accomplish the work. Sub-consultants and teams shall be listed on the proposal.
- A detailed schedule indicating stages of work, sub-tasks and timeframes.
- An organization chart and staffing plan identifying personnel who will perform work for each specific corridor, a brief resume on each individual (one page max per person), and recent projects they have worked on of similar type. Identify the project manager with a detailed resume and the individual authorized to negotiate the contract on behalf of the consulting firm for this project.
- A listing of similar improvement projects that your firm has completed within the last five years. Information should include a description of work, year completed, cost, and agency/client name along with the agency contact person.
- > The City may develop a short list and schedule interviews or make an award based on proposals alone.
- Commitment to comply with Professional Services Agreement requirements for the City of Costa Mesa and Insurance requirements, attached as Exhibits C and D.
- Submittal of Four (4) duplicate proposals is requested.
- The proposal may not be longer than 20 pages, excluding the attached resume pages.

F. FEE SCHEDULE

The professional services contract fee is to be submitted in a separate envelope. The fee schedule should show the hourly cost of personnel per task under each phase, with a total not-to-exceed amount for the project. The consultant's cost proposal for the prime and sub-consultants should contain a breakdown of all cost components including labor base rate, other direct costs, overhead, and fees in compliance with the described scope, the attached General Specifications, and include all associated work required to achieve the project objective. It is requested that the fee, including meetings, reproduction, materials, and associated project expenses be itemized per the following General Fee Schedule format, though additional support details may be included.

G. PROPOSAL EVALUATION CRITERIA

Proposals will be evaluated on the basis of the response to all provisions of this RFP. The maximum score is 100 total possible points. The following criteria will be used for evaluation and comparison of proposals submitted.

Firm Qualifications (technical expertise, staff qualifications, etc.)	25 points
Management Approach (methodology, quality control, etc.)	25 points
Work Plan (delivery schedule, local knowledge, etc.)	25 points
Overall Presentation (similar project experience, RFP compliance, etc.)	25 points

H. RIGHT TO REJECT OR SPLIT ALL PROPOSALS

The City of Costa Mesa reserves the right to reject any or all proposals submitted, and no representation is made hereby that any contract will be awarded pursuant to this request for proposal, or otherwise. All costs incurred in the preparation of the proposal, in the submission of additional information, and/or in any other aspect of a proposal prior to the award of a written contract will be borne by respondent. The City will provide only the staff assistance and documentation specifically referred to herein and will not be responsible for any other cost or obligation of any kind that may be incurred by a respondent. All proposals submitted to the City of Costa Mesa in response to this request for proposals shall become the property of the City. Parts of the project may be awarded separately to different consultants, dependent upon budgetary and time constraints.

The City of Costa Mesa's professional services standard agreement and sample certificate of insurance are included as Exhibits C and D. Should your firm be interested in submitting a proposal for this project, please forward to the City of Costa Mesa, Transportation Services Division, 4th Floor City Hall, 77 Fair Drive, Costa Mesa, CA 92626, on or before 5:00 p.m., February 6, 2015. No Faxed Copies; Postmarks will not be accepted in lieu of actual delivery.

II. SUNFLOWER AVENUE CORRIDOR TRAFFIC SIGNAL COORDINATION PROJECT

A. PROJECT DESCRIPTION

The Sunflower Avenue Corridor Traffic Signal Coordination Project will coordinate traffic signal timing and provide necessary upgrades to traffic signal infrastructure including necessary integration and technical improvements to monitor these signals in the City's Traffic Management system.

This corridor includes 14 signals between Main Street and Hyland Avenue and runs approximately 3.3 miles within the City of Costa Mesa. This corridor carries an average daily traffic volume of up to 26,000 vehicles. Sunflower Avenue is an east-west corridor that serves office, residential, and commercial (South Coast Plaza) uses between Main Street and Harbor Boulevard.

B. PROPOSED TIMING IMPLEMENTATION

A minimum of three (3) separate "post timing implementation" field studies shall be conducted for each timing plan to incrementally optimize progression by refining cycle lengths, offsets, phase sequences, and split parameters in close consultation with City staff. A final report will be prepared summarizing "before" and "after" conditions identifying signal coordination benefits derived in corridor vehicle progression, including reduction in stops, delays, fuel consumption, exhaust emissions, and improvement in individual intersection operations.

The manual input of all new coordination timings and any adjustments recommended by the consultant shall be made by the consultant in Costa Mesa with direct supervision by City staff.

C. CONTRACT CHANGES

Any change in the scope of work resulting in a contract increase or decrease in fee shall be approved by the City in writing prior to commencement of any change in work. No fee adjustment will be allowed unless said prior approval is authorized exclusively in writing by the City, without exception.

D. GENERAL FEE SCHEDULE FORMAT

The format shows the general fee schedule format, though additional support details maybe included:

General Fee Schedule

Part 1 Signal Coordination, Develop and Implement timing, Before and After Studies and documents for OCTA reporting	s, Reports	Lump Sum \$
Part 2System Improvements, Procure and Install Equipment		Lump Sum \$
Part 3 Preparation of Record drawings, or Specifications and Estimate or Procurement	-	Lump Sum \$
Part 4 Preparation of Plans, Specifications for TMC Improvements	and Estimate	Lump Sum \$
Part 5 2 Years follow-up Maintenance	Per Year \$	Sub-Total \$
CUMULATIVE NOT-TO-	EXCEED FEE:	\$
Additive Work Scope		
Traffic Counts at Intersections	Per Intersection \$	Total \$
Install 3" Conduit	Per Lineal Foot \$	Total \$
Additive work shall be included exclusively Please include an estimated work breakdown evaluation recognizes that costs may vary be information should support fee submissions.	vn structure for the proased upon project app	roject and personnel rate sheet. The

All originals of plans, field notes, data and calculations, correspondence, reports, electronic files, etc., will be turned over to the City upon completion of work. Ten percent (10%) of the total contract fee will be withheld until final project documents are submitted to the City.

12 nisM Sunflower Ave Flowers St Sakioka Or 2TIA 9011 to 9VA Pak Ctr Dr Sunflower Avenue Project Map 12 lotsing South Plaza Dr EXHIBIT A-1 **12 1698** Santa Ana Costa Mesa 12 HIGH Fuchsia St Wimbledon Way Greenville St Sunflower Ave Corridor City of Costa Mesa Traffic Signal Fairview 51 Sunflower Ave 15 uesns Harbor Blvd LEGEND: Hyland Ave

EXHIBIT A-2

SUNFLOWER AVENUE TRAFFIC SIGNAL SYNCHRONIZATION PROJECT

The following list of work shall be accomplished for the project. The consultant will develop a set of plans, specifications and estimate for the following work (Items 1-17 below) to be managed and accomplished with consultant forces and with the use of subcontractors. Additionally, the consultant will develop a set of plans, specifications and estimate for the construction of 3' conduit (details provided in Item #15) to be accomplished through competitive bid process. Changes to the work and approach may be proposed based on traffic signal coordination studies and consultant's level of expertise. All work proposed shall be compatible with the City's current Traffic Management System and result in the following outcome at each signal.

Costa Mesa Project Improvement List

1. <u>Sunflower Avenue at Main Street</u> No Equipment

2. Sunflower Avenue at Anton Boulevard

No Equipment

3. Sunflower Avenue at Flower Street/Sakioka Drive

ASC/3 controller, fiber switch, D-Panel, 6(E) pullbox, splice enclosure, fiber distribution unit, Fiber Optic Cable, drop cable, and pedestrian signal upgrades

4. Sunflower Avenue at Avenue of Arts

ASC/3 controller, fiber switch, D-Panel, 6(E) pullbox, splice enclosure, fiber distribution unit, Fiber Optic Cable, drop cable, CCTV system, and pedestrian signal upgrades

5. Sunflower Avenue at Park Center

ASC/3 controller, fiber switch, D-Panel, 6(E) pullbox, splice enclosure, fiber distribution unit, Fiber Optic Cable, drop cable, and pedestrian signal upgrades

6. Sunflower Avenue at Bristol Street

Install Fiber Optic Cablé, and pedestrian signal upgrades

7. Sunflower Avenue at Plaza Drive

ASC/3 controller, fiber switch, D-Panel, 6(E) pullbox, splice enclosure, fiber distribution unit, Fiber Optic Cable, drop cable, and pedestrian signal upgrades

8. Sunflower Avenue at Bear Street

ASC/3 controller, fiber switch, D-Panel, 6(E) pullbox, splice enclosure, fiber distribution unit, Fiber Optic Cable, drop cable, managed ethernet switch, CCTV system, and pedestrian signal upgrades

9. Sunflower Avenue at Fuchsia Street/Raitt Street

ASC/3 controller, fiber switch, D-Panel, 6(E) pullbox, splice enclosure, fiber distribution unit, drop cable, Fiber Optic Cable, Type P cabinet, and Uninterruptible Power Supply unit

10. Sunflower Avenue at Wimbledon Way

ASC/3 controller, fiber switch, D-Panel, 6(E) pullbox, splice enclosure, fiber distribution unit, drop cable, Fiber Optic Cable, Type P cabinet, and Uninterruptible Power Supply unit

11. Sunflower Avenue at Fairview Road

Install Fiber Optic Cable

12. Sunflower Avenue at Susan Street

ASC/3 controller, fiber switch, D-Panel, 6(E) pullbox, splice enclosure, fiber distribution unit, Fiber Optic Cable, drop cable, and CCTV camera engaging

13. Sunflower Avenue at Harbor Boulevard

Install fiber switch, D-Panel, 6(E) pullbox, splice enclosure, fiber distribution unit, Fiber Optic Cable, and Wireless antenna

14. Sunflower Avenue at Hyland Avenue

ASC/3 controller, Wireless antenna, and D-Panel

- 15. <u>PS&E for 3" conduit</u> PS&E for a 3" conduit along Sunflower Avenue between Wimbledon Way and Fuschia Street (approximately 1,750 ft) and between Harbor Boulevard and Susan Street (approximately 1,800 ft)
- 16. <u>Central System Improvements</u> Central System integration and configuration of 13 intersections into the MIST system with graphics. Develop plans, specifications and estimates for relocating the Traffic Management Center (TMC).
- 17. <u>SMFO Installation</u> Replace the existing TWP copper cable with 24-strand SMFO in existing conduits. Total distance, including slack, is approximately 16,000 feet.

EXHIBIT B

PLANS, SPECIFICATIONS & ESTIMATE REQUIREMENTS

This phase includes the preparation of final plans and specifications necessary to construct the project. This task includes, but is not limited to the following:

Engineering (PS&E), System Improvement (Procurement, Installation and Integration)

The project also has a number of improvements that include traffic signals upgrade, traffic surveillance system, communication system, Traffic Management Center hardware/software upgrades, and other traffic signal synchronization related.

- The construction of a 3" conduit along Sunflower Avenue between Wimbledon Way and Fuchsia Street and between Susan Street and Harbor Boulevard will require a proper licensed and bonded contractor to follow the City's bid and award process. This will require Plans, Specifications and Estimate packages to be prepared by the consultant under the Engineering (PS&E) task.
- ❖ All other improvements including hardware/software upgrades that can be completed under professional engineering services will be done by the consultant or its subcontractor under System Improvement (procure, install and integrate) task.

Engineering (PS&E)

The Consultant shall perform all necessary data collection and field review to prepare plans, specifications and estimates for the listed improvements. PS&E for improvement shall conform to City of Costa Mesa's standards and procedures. From the list of improvements identified in Exhibit A-2, the following specific improvements will require PS&E:

- 1. Conduit/pullbox and interconnect/fiber optic installation
- 2. CCTV installation/replacement
- 3. Cabinet/Service upgrade/replacement
- 4. Pedestrian equipment upgrade
- 5. TMC Improvements
- 6. All other related improvements on the application but not listed under the consultant procurement and implementation.

The Consultant shall perform all necessary data collection and field review to prepare plans, specifications and estimates and bid package for construction of a new 3" interconnect conduit. PS&E and bid package for this task shall conform to City of Costa Mesa's standards and procedures for bid and award.

System Procurement and Integration

The Consultant under the engineering services shall be responsible for the procurement, installation, and integration of the improvements listed below. All controllers, communication equipment, system hardware, and firmware shall have a 3-year license/maintenance/guarantee on firmware/software patches, fixes, updates, or upgrades.

Traffic Signal Equipment and Internet Protocol (IP) Communication Equipment

The Consultant shall procure, install, and integrate all traffic signal equipment (ASC3 controllers, cabinet replacements, electrical service upgrade, etc.) and IP communication equipment (Ethernet and fiber optic switches, fiber optic cable, fiber distribution units, etc.) as shown in the Exhibit A-2.

TMC

The Consultant will work with City staff to determine the Traffic Signal System, Video Management and Display Systems, and related improvement needs. Consultant shall prepare PS&E, and procure and implement the system. Additionally, the Consultant shall prepare PS&E for TMC Improvements including construction of a climate-controlled area and preparing a layout showing all the equipment in this area.

EXHIBIT C

PROFESSIONAL STANDARD SERVICES AGREEMENT

This Agreement template is for informational purposes only and is intended for use as an example to vendors showing the City's requirements. When making a request, please submit only the Request form, above, and supporting documents.

PROFESSIONAL SERVICES AGREEMENT FOR

/6T) C	THIS AGREEMENT is made and entered into this day of, 2007
	fective Date"), by and between the CITY OF COSTA MESA, a municipal corporation ("City"),, a California corporation ("Consultant").
	WITNESSETH:
	WHEREAS, City proposes to have Consultant perform as described herein w; and
	WHEREAS, Consultant represents that it has that degree of specialized expertise emplated within California Government Code, Section 37103, and holds all necessary licenses to tice and perform the services herein contemplated; and
proje	WHEREAS, City and Consultant desire to contract for specific services in connection with the ect described below (the "Project") and desire to set forth their rights, duties and liabilities in ection with the services to be performed; and
D. Calif	WHEREAS, no official or employee of City has a financial interest, within the provisions of fornia Government Code, Sections 1090-1092, in the subject matter of this Agreement.
conta	NOW, THEREFORE, for and in consideration of the mutual covenants and conditions ained herein, the parties hereby agree as follows:

1.0. SERVICES PROVIDED BY CONSULTANT

- 1.1. <u>Scope of Services</u>. Consultant shall provide the professional services described in the City's Request for Proposal ("RFP") attached hereto as Exhibit "A" and incorporated herein by reference and Consultant's Response to City's RFP (the "Response"). A copy of said Response is attached hereto as Exhibit "B" and incorporated herein by this reference.
- 1.2. <u>Professional Practices</u>. All professional services to be provided by Consultant pursuant to this Agreement shall be provided by personnel experienced in their respective fields and in a manner consistent with the standards of care, diligence and skill ordinarily exercised by professional consultants in similar fields and circumstances in accordance with sound professional practices. Consultant also warrants that it is familiar with all laws that may affect its performance of this Agreement and shall advise City of any changes in any laws that may affect Consultant's performance of this Agreement.
 - 1.3. Warranty. Consultant warrants that it shall perform the services required by this

Agreement in compliance with all applicable Federal and California employment laws including, but not limited to, those laws related to minimum hours and wages; occupational health and safety; fair employment and employment practices; workers' compensation insurance and safety in employment; and all other Federal, State and local laws and ordinances applicable to the services required under this Agreement. Consultant shall indemnify and hold harmless City from and against all claims, demands, payments, suits, actions, proceedings, and judgments of every nature and description including attorneys' fees and costs, presented, brought, or recovered against City for, or on account of any liability under any of the above-mentioned laws, which may be incurred by reason of Consultant's performance under this Agreement.

- 1.4. <u>Non-discrimination</u>. In performing this Agreement, Consultant shall not engage in, nor permit its agents to engage in, discrimination in employment of persons because of their race, religion, color, national origin, ancestry, age, physical handicap, medical condition, marital status, sexual gender or sexual orientation, except as permitted pursuant to Section 12940 of the Government Code. Violation of this provision may result in the imposition of penalties referred to in Labor Code, Section 1735.
- 1.5 <u>Non-Exclusive Agreement</u>. Consultant acknowledges that City may enter into agreements with other consultants for services similar to the services that are subject to this Agreement or may have its own employees perform services similar to those services contemplated by this Agreement.
- 1.6. <u>Delegation and Assignment</u>. This is a personal service contract, and the duties set forth herein shall not be delegated or assigned to any person or entity without the prior written consent of City. Consultant may engage a subcontractor(s) as permitted by law and may employ other personnel to perform services contemplated by this Agreement at Consultant's sole cost and expense.

2.0. COMPENSATION AND BILLING

- 2.1. <u>Compensation</u>. Consultant shall be paid in accordance with the fee schedule set forth in Exhibit "C," attached hereto and made a part of this Agreement (the "Fee Schedule"). Consultant's compensation shall in no case exceed ______ Dollars (\$______.00).
- 2.2. <u>Additional Services</u>. Consultant shall not receive compensation for any services provided outside the scope of services specified in the Response unless the City or the Project Manager for this Project, prior to Consultant performing the additional services, approves such additional services in writing. It is specifically understood that oral requests and/or approvals of such additional services or additional compensation shall be barred and are unenforceable.
- 2.3. Method of Billing. Consultant may submit invoices to City's Project Manager for approval on a progress basis, but no more often than monthly. Said invoice shall be based on the total of all Consultant's services which have been completed to City's sole satisfaction. City shall pay Consultant's invoice within forty-five (45) days from the date City receives said invoice. Each invoice shall describe in detail, the services performed and the associated time for completion. Any additional services approved and performed pursuant to this Agreement shall be designated as "Additional Services" and shall identify the number of the authorized change order, where applicable, on all invoices.

2.4. Records and Audits. Records of Consultant's services relating to this Agreement shall be maintained in accordance with generally recognized accounting principles and shall be made available to City or its Project Manager for inspection and/or audit at mutually convenient times for a period of three (3) years from the Effective Date.

3.0. TIME OF PERFORMANCE

- 3.1. Commencement and Completion of Work. The professional services to be performed pursuant to this Agreement shall commence within five (5) days from the Effective Date of this Agreement. Said services shall be performed in strict compliance with the Project Schedule approved by City as set forth in Exhibit "D," attached hereto and incorporated herein by this reference. The Project Schedule may be amended by mutual agreement of the parties. Failure to commence work in a timely manner and/or diligently pursue work to completion may be grounds for termination of this Agreement.
- 3.2. Excusable Delays. Neither party shall be responsible for delays or lack of performance resulting from acts beyond the reasonable control of the party or parties. Such acts shall include, but not be limited to, acts of God, fire, strikes, material shortages, compliance with laws or regulations, riots, acts of war, or any other conditions beyond the reasonable control of a party.

4.0. TERM AND TERMINATION

- 4.1. <u>Term.</u> This Agreement shall commence on the Effective Date and continue for a period of _____ (X) year, ending on _____, unless previously terminated as provided herein or as otherwise agreed to in writing by the parties.
- 4.2. <u>Notice of Termination</u>. The City reserves and has the right and privilege of canceling, suspending or abandoning the execution of all or any part of the work contemplated by this Agreement, with or without cause, at any time, by providing written notice to Consultant. The termination of this Agreement shall be deemed effective upon receipt of the notice of termination. In the event of such termination, Consultant shall immediately stop rendering services under this Agreement unless directed otherwise by the City.
- 4.3. <u>Compensation</u>. In the event of termination, City shall pay Consultant for reasonable costs incurred and professional services satisfactorily performed up to and including the date of City's written notice of termination. Compensation for work in progress shall be prorated as to the percentage of work completed as of the effective date of termination in accordance with the fees set forth herein. In ascertaining the professional services actually rendered hereunder up to the effective date of termination of this Agreement, consideration shall be given to both completed work and work in progress, to complete and incomplete drawings, and to other documents pertaining to the services contemplated herein whether delivered to the City or in the possession of the Consultant.
- 4.4 <u>Documents</u>. In the event of termination of this Agreement, all documents prepared by Consultant in its performance of this Agreement including, but not limited to, finished or unfinished design, development and construction documents, data studies, drawings, maps and reports, shall be delivered to the City within ten (10) days of delivery of termination notice to Consultant, at no cost to City. Any use of uncompleted documents without specific written authorization from Consultant shall be at City's sole risk and without liability or legal expense to Consultant.

5.0. INSURANCE

- 5.1. <u>Minimum Scope and Limits of Insurance</u>. Consultant shall obtain and maintain during the life of this Agreement all of the following insurance coverages:
 - (a) Comprehensive general liability, including premises-operations, products/completed operations, broad form property damage, blanket contractual liability, independent contractors, personal injury with a policy limit of not less than One Million Dollars (\$1,000,000.00), combined single limits, per occurrence and aggregate.
 - (b) Automobile liability for owned vehicles, hired, and non-owned vehicles, with a policy limit of not less than One Million Dollars (\$1,000,000.00), combined single limits, per occurrence and aggregate.
 - (c) Workers' compensation insurance as required by the State of California.
 - (d) Professional errors and omissions ("E&O") liability insurance with policy limits of not less than One Million Dollars (\$1,000,000.00), combined single limits, per occurrence and aggregate. Consultant shall obtain and maintain, said E&O liability insurance during the life of this Agreement and for three years after completion of the work hereunder.
- 5.2. <u>Endorsements</u>. The comprehensive general liability insurance policy shall contain or be endorsed to contain the following provisions:
 - (a) Additional insureds: "The City of Costa Mesa and its elected and appointed boards, officers, agents, and employees are additional insureds with respect to this subject project and contract with City."
 - (b) Notice: "Said policy shall not terminate, nor shall it be cancelled, nor the coverage reduced, until thirty (30) days after written notice is given to City."
 - (c) Other insurance: "Any other insurance maintained by the City of Costa Mesa shall be excess and not contributing with the insurance provided by this policy."
- 5.3. <u>Certificates of Insurance</u>: Consultant shall provide to City certificates of insurance showing the insurance coverages and required endorsements described above, in a form and content approved by City, prior to performing any services under this Agreement.
- 5.4. <u>Non-limiting</u>: Nothing in this Section shall be construed as limiting in any way, the indemnification provision contained in this Agreement, or the extent to which Consultant may be held responsible for payments of damages to persons or property.

6.0. GENERAL PROVISIONS

- 6.1. Entire Agreement: This Agreement constitutes the entire Agreement between the parties with respect to any matter referenced herein and supersedes any and all other prior writings and oral negotiations. This Agreement may be modified only in writing, and signed by the parties in interest at the time of such modification. The terms of this Agreement shall prevail over any inconsistent provision in any other contract document appurtenant hereto, including exhibits to this Agreement.
- 6.2. <u>Representatives</u>. The City Manager or his designee shall be the representative of City for purposes of this Agreement and may issue all consents, approvals, directives and agreements on behalf of the City, called for by this Agreement, except as otherwise expressly provided in this Agreement.

Consultant shall designate a representative for purposes of this Agreement who shall be authorized to issue all consents, approvals, directives and agreements on behalf of Consultant called for by this Agreement, except as otherwise expressly provided in this Agreement.

6.3. <u>Project Managers</u>. City shall designate a Project Manager to work directly with Consultant in the performance of this Agreement.

Consultant shall designate a Project Manager who shall represent it and be its agent in all consultations with City during the term of this Agreement. Consultant or its Project Manager shall attend and assist in all coordination meetings called by City.

6.4. Notices: Any notices, documents, correspondence or other communications concerning this Agreement or the work hereunder may be provided by personal delivery, facsimile or mail and shall be addressed as set forth below. Such communication shall be deemed served or delivered: a) at the time of delivery if such communication is sent by personal delivery; b) at the time of transmission if such communication is sent by facsimile; and c) 48 hours after deposit in the U.S. Mail as reflected by the official U.S. postmark if such communication is sent through regular United States mail.

IF TO CONSULTANT:

IF TO CITY:

City of Costa Mesa 77 Fair Drive Costa Mesa, CA 92626

Tel: Tel: 714-754-

Fax: Fax: 714-754-

Attn: Attn:

6.5. <u>Drug-free Workplace Policy</u>. Consultant shall provide a drug-free workplace by complying with all provisions set forth in City's Council Policy 100-5, attached hereto as Exhibit "C" and incorporated herein by reference. Consultant's failure to conform to the requirements

set forth in Council Policy 100-5 shall constitute a material breach of this Agreement and shall be cause for immediate termination of this Agreement by City.

- 6.6. Attorneys' Fees: In the event that litigation is brought by any party in connection with this Agreement, the prevailing party shall be entitled to recover from the opposing party all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing party in the exercise of any of its rights or remedies hereunder or the enforcement of any of the terms, conditions, or provisions hereof.
- 6.7. Governing Law: This Agreement shall be governed by and construed under the laws of the State of California without giving effect to that body of laws pertaining to conflict of laws. In the event of any legal action to enforce or interpret this Agreement, the parties hereto agree that the sole and exclusive venue shall be a court of competent jurisdiction located in Orange County, California.
- 6.8. <u>Assignment</u>: Consultant shall not voluntarily or by operation of law assign, transfer, sublet or encumber all or any part of Consultant's interest in this Agreement without City's prior written consent. Any attempted assignment, transfer, subletting or encumbrance shall be void and shall constitute a breach of this Agreement and cause for termination of this Agreement. Regardless of City's consent, no subletting or assignment shall release Consultant of Consultant's obligation to perform all other obligations to be performed by Consultant hereunder for the term of this Agreement.
- 6.9. <u>Indemnification and Hold Harmless</u>: Consultant shall protect, defend, indemnify and hold harmless City and its elected and appointed officials, officers, and employees from any and all claims, liabilities, expenses, including attorney fees, damage to property or injuries to or death of any person or persons or damages of any nature including, but not by way of limitation, all civil claims or workers' compensation claims arising out of or in any way connected with the intentional or negligent acts, error or omissions of Consultant, its employees, agents or subcontractors in the performance of this Agreement.
- 6.10. <u>Independent Contractor</u>: Consultant is and shall be acting at all times as an independent contractor and not as an employee of City. Consultant shall secure, at his expense, and be responsible for any and all payment of Income Tax, Social Security, State Disability Insurance Compensation, Unemployment Compensation, and other payroll deductions for Consultant and its officers, agents, and employees, and all business licenses, if any are required, in connection with the services to be performed hereunder.
- 6.11. Ownership of Documents: All findings, reports, documents, information and data including, but not limited to, computer tapes or discs, files and tapes furnished or prepared by Consultant or any of its subcontractors in the course of performance of this Agreement, shall be and remain the sole property of City. Consultant agrees that any such documents or information shall not be made available to any individual or organization without the prior consent of City. Any use of such documents for other projects not contemplated by this Agreement, and any use of incomplete documents, shall be at the sole risk of City and without liability or legal exposure to Consultant. City shall indemnify and hold harmless Consultant from all claims, damages, losses, and expenses, including attorneys' fees, arising out of or resulting from City's use of such documents for other projects not contemplated by this Agreement or use of incomplete documents furnished by Consultant. Consultant shall deliver to City any findings, reports, documents, information, data, in

any form, including but not limited to, computer tapes, discs, files audio tapes or any other Project related items as requested by City or its authorized representative, at no additional cost to the City.

- 6.12. Public Records Act Disclosure: Consultant has been advised and is aware that all reports, documents, information and data including, but not limited to, computer tapes, discs or files furnished or prepared by Consultant, or any of its subcontractors, and provided to City may be subject to public disclosure as required by the California Public Records Act (California Government Code Section 6250 et. seq.). Exceptions to public disclosure may be those documents or information that qualify as trade secrets, as that term is defined in the California Government Code Section 6254.7, and of which Consultant informs City of such trade secret. The City will endeavor to maintain as confidential all information obtained by it that is designated as a trade secret. The City shall not, in any way, be liable or responsible for the disclosure of any trade secret including, without limitation, those records so marked if disclosure is deemed to be required by law or by order of the Court.
- 6.13. Responsibility for Errors. Consultant shall be responsible for its work and results under this Agreement. Consultant, when requested, shall furnish clarification and/or explanation as may be required by the City's representative, regarding any services rendered under this Agreement at no additional cost to City. In the event that an error or omission attributable to Consultant occurs, then Consultant shall, at no cost to City, provide all necessary design drawings, estimates and other Consultant professional services necessary to rectify and correct the matter to the sole satisfaction of City and to participate in any meeting required with regard to the correction.
- 6.14. <u>Prohibited Employment</u>: Consultant will not employ any regular employee of City while this Agreement is in effect.
- 6.15. Order of Precedence: In the event of an inconsistency in this Agreement and any of the attached Exhibits, the terms set forth in this Agreement shall prevail. If, and to the extent this Agreement incorporates by reference any provision of the RFP or the Response, such provision shall be deemed a part of this Agreement. Nevertheless, if there is any conflict among the terms and conditions of this Agreement and those of any such provision or provisions so incorporated by reference, this Agreement shall govern over both the Response and the RFP and the Response shall govern over the RFP.
- 6.16. <u>Costs</u>: Each party shall bear its own costs and fees incurred in the preparation and negotiation of this Agreement and in the performance of its obligations hereunder except as expressly provided herein.
- 6.17. No Third Party Beneficiary Rights: This Agreement is entered into for the sole benefit of City and Consultant and no other parties are intended to be direct or incidental beneficiaries of this Agreement and no third party shall have any right in, under or to this Agreement.
- 6.18. <u>Headings</u>: Paragraphs and subparagraph headings contained in this Agreement are included solely for convenience and are not intended to modify, explain or to be a full or accurate description of the content thereof and shall not in any way affect the meaning or interpretation of this Agreement.
- 6.19. <u>Construction</u>: The parties have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises with respect to

this Agreement, this Agreement shall be construed as if drafted jointly by the parties and in accordance with its fair meaning. There shall be no presumption or burden of proof favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

- 6.20. <u>Amendments</u>: Only a writing executed by the parties hereto or their respective successors and assigns may amend this Agreement.
- 6.21. <u>Waiver</u>: The delay or failure of either party at any time to require performance or compliance by the other of any of its obligations or agreements shall in no way be deemed a waiver of those rights to require such performance or compliance. No waiver of any provision of this Agreement shall be effective unless in writing and signed by a duly authorized representative of the party against whom enforcement of a waiver is sought. The waiver of any right or remedy in respect to any occurrence or event shall not be deemed a waiver of any right or remedy in respect to any other occurrence or event, nor shall any waiver constitute a continuing waiver.
- 6.22. Severability: If any provision of this Agreement is determined by a court of competent jurisdiction to be unenforceable in any circumstance, such determination shall not affect the validity or enforceability of the remaining terms and provisions hereof or of the offending provision in any other circumstance. Notwithstanding the foregoing, if the value of this Agreement, based upon the substantial benefit of the bargain for any party is materially impaired, which determination as made by the presiding court or arbitrator of competent jurisdiction shall be binding, then both parties agree to substitute such provision(s) through good faith negotiations.
- 6.23. <u>Counterparts</u>: This Agreement may be executed in one or more counterparts, each of which shall be deemed an original. All counterparts shall be construed together and shall constitute one agreement.
- 6.24. <u>Corporate Authority</u>: The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by doing so, the parties hereto are formally bound to the provisions of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by and through their respective authorized officers, as of the date first above written.

A municipal corporation		
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Mayor of the City of Costa Mesa CONSULTANT		
Compatura	Date:	
Signature		
Name and Title	_	

CITY OF COSTA MESA,

Social Security or Taxpayer ID Number	
ATTEST:	
City Clerk and ex-officio Clerk of the City of Costa Mesa	
APPROVED AS TO FORM:	
	Date:
City Attorney	
APPROVED AS TO INSURANCE:	
Risk Management	Date:
Kisk Management	
APPROVED AS TO CONTENT:	
Project Manager	Date:

,

SUBJECT	POLICY	EFFECTIVE	PAGE
DRUG-FREE WORKPLACE	NUMBER 100-5	DATE 8-8-89	1 of 3

BACKGROUND

Under the Federal Drug-Free Workplace Act of 1988, passed as part of omnibus drug legislation enacted November 18, 1988, contractors and grantees of Federal funds must certify that they will provide drug-free workplaces. At the present time, the City of Costa Mesa, as a sub-grantee of Federal funds under a variety of programs, is required to abide by this Act. The City Council has expressed its support of the national effort to eradicate drug abuse through the creation of a Substance Abuse Committee, institution of a City-wide D.A.R.E. program in all local schools and other activities in support of a drug-free community. This policy is intended to extend that effort to contractors and grantees of the City of Costa Mesa in the elimination of dangerous drugs in the workplace.

PURPOSE

It is the purpose of this Policy to:

- 1. Clearly state the City of Costa Mesa's commitment to a drug-free society.
- 2. Set forth guidelines to ensure that public, private, and nonprofit organizations receiving funds from the City of Costa Mesa share the commitment to a drug-free workplace.

POLICY

The City Manager, under direction by the City Council, shall take the necessary steps to see that the following provisions are included in all contracts and agreements entered into by the City of Costa Mesa involving the disbursement of funds.

- 1. Contractor or Sub-grantee hereby certifies that it will provide a drug-free workplace by:
- a. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in Contractor's and/or subgrantee's workplace, specifically the job site or location included in this contract, and specifying the actions that will be taken against the employees for violation of such prohibition;

SUBJECT	POLICY	EFFECTIVE	PAGE
DRUG-FREE WORKPLACE	NUMBER 100-5	DATE 8-8-89	2 of 3

- b. Establishing a Drug-Free Awareness Program to inform employees about:
- 1. The dangers of drug abuse in the workplace;
- 2. Contractor's and/or sub-grantee's policy of maintaining a drug-free workplace;
- 3. Any available drug counseling, rehabilitation and employee assistance programs; and
- 4. The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- c. Making it a requirement that each employee to be engaged in the performance of the contract be given a copy of the statement required by subparagraph A;
 - d. Notifying the employee in the statement required by subparagraph 1 A that, as a condition of employment under the contract, the employee will:
 - 1. Abide by the terms of the statement; and
 - 2. Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction;
- e. Notifying the City of Costa Mesa within ten (10) days after receiving notice under subparagraph 1 D 2 from an employee or otherwise receiving the actual notice of such conviction;
 - f. Taking one of the following actions within thirty (30) days of receiving notice under subparagraph 1 D 2 with respect to an employee who is so convicted:
 - 1. Taking appropriate personnel action against such an employee, up to and including termination; or
 - 2. Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health agency, law enforcement, or other appropriate agency;

SUBJECT	POLICY	EFFECTIVE	PAGE
DRUG-FREE WORKPLACE	NUMBER 100-5	DATE 8-8-89	3 of 3

- g. Making a good faith effort to maintain a drug-free workplace through implementation of subparagraphs 1 A through 1 F, inclusive.
 - 2. Contractor and/or sub-grantee shall be deemed to be in violation of this Policy if the City of Costa Mesa determines that:
 - a. Contractor and/or sub-grantee has made a false certification under paragraph 1 above;
 - b. Contractor and/or sub-grantee has violated the certification by failing to carry out the requirements of subparagraphs 1 A through 1 G above;
 - c. Such number of employees of Contractor and/or sub-grantee have been convicted of violations of criminal drug statutes for violations occurring in the workplace as to indicate that the contractor and/or sub-grantee has failed to make a good faith effort to provide a drug-free workplace.
 - 3. Should any contractor and/or sub-grantee be deemed to be in violation of this Policy pursuant to the provisions of 2 A, B, and C, a suspension, termination or debarment proceeding subject to applicable Federal, State, and local laws shall be conducted. Upon issuance of any final decision under this section requiring debarment of a contractor and/or sub-grantee, the contractor and/or sub-grantee shall be ineligible for award of any contract, agreement or grant from the City of Costa Mesa for a period specified in the decision, not to exceed five (5) years. Upon issuance of any final decision recommending against debarment of the contractor and/or sub-grantee, the contractor and/or sub-grantee shall be eligible for compensation as provided by law.

EXHIBIT D

SAMPLE CERTIFICATE OF INSURANCE

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					PERSONAL & ADV INJURY	\$1,000,000
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POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSES OR CONTRACTORS - (FORM B)

This endorsement modifies insurance provided under the following:

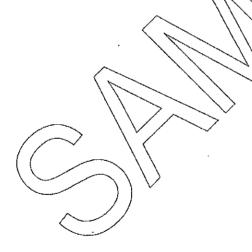
COMMERCIAL GENERAL LIABILITY COVERAGE PART.

SCHEDULE

Name of Person or Organization:

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

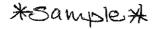
WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" for that insured by or for you.



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Copyright, Insurance Services Office, Inc., 1984

Page 1 of 1



POLICY NUMBER: __.

COMMERCIAL GENERAL LIABILITY ECG 24 514 05 00

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY AND NONCONTRIBUTORY PROVISION - YOUR OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

Paragraph 4., Other insurance of Conditions (Section IV) is amended by the addition of the following:

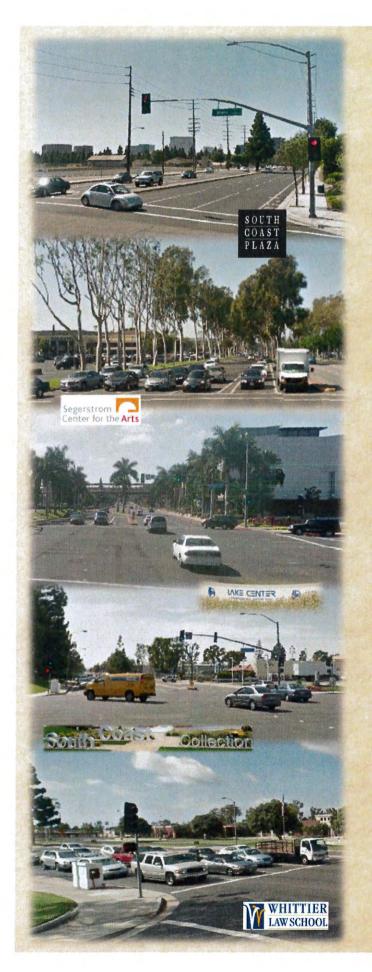
If insurance similar to this insurance is held by a person or organization that is:

- a. An owner of real or personal property on which you are performing operations; or
- b. A contractor on whose behalf you are performing operations,

this insurance is primary to that other insurance, and that other insurance shall not contribute to amounts payable under this insurance, for liability arising out of your ongoing operations performed for that person or organization under a written contract. However, this does not apply to any person or organization:

- From whom you did not receive a specific written request that this insurance be primary insurance, or if you
 did not receive that request prior to the date that your operations for that person or organization commenced;
 or
- b. For whom a certificate of insurance evidencing that request is not on file with, or received by, us prior to sixty days after the end of the policy period for this insurance.

EXHIBIT B CONSULTANT'S PROPOSAL



TECHNICAL PROPOSAL

to provide

PROFESSIONAL CONSULTANT SERVICES

for the

SUNFLOWER AVENUE TRAFFIC SIGNAL COORDINATION PROJECT

submitted to



TRANSPORTATION SERVICES DIVISION

APRIL 20, 2015

submitted by

ALBERT
GROVER &
ASSOCIATES



April 20, 2015

Mr. Pritam Deshmukh, Associate Civil Engineer Transportation Services Division, Fourth Floor City Hall 77 Fair Drive Costa Mesa, California 92628

RE: Sunflower Avenue Traffic Signal Coordination

Dear Mr. Deshmukh:

Albert Grover & Associates (AGA) is pleased to respond to the City of Costa Mesa's Request for Proposal (RFP) dated January 5, 2015, to provide professional Turn-Key services for design, equipment purchase and installation, construction management, system integration, and ongoing monitoring/maintenance to improve coordination signal timing on the Sunflower Avenue Corridor.

Enclosed please find four copies of our Technical Proposal detailing our proposed project approach, work plan, and project schedule; identification of our project team and descriptions of their relevant experience; and listing details of the Project Team's experience in conducting similar projects for various governmental agencies throughout Southern California, including appropriate references and contact persons. As requested in the RFP, our Fee Proposal has been submitted under separate cover.

There are several key factors that we feel make AGA, in general, and Mr. Chalap Sadam, our designated Project Manager, in particular, especially qualified to provide the required services and more. These factors include the following:

- Our Team's expertise in all phases of turnkey Traffic Management Center/ITS improvement traffic signal coordination projects, including planning, design, construction, operation and maintenance, will greatly assist us in helping to achieve project goals. Per our references, no other consulting traffic and transportation engineering firm in Southern California is nearly as experienced as AGA in two key areas: development, implementation and fine-tuning of coordination timing plans, and ongoing operation of various traffic signal control systems. Our experience in all components of signal timing enables us to develop optimized coordination plans for real world traffic conditions.
- AGA staff have successfully completed many multijurisdictional traffic signal coordination projects involving a multitude of different hardware and software systems. While the City of Santa Ana is not formally included as part of the project, we understand the importance of working with them at shared intersections to maximize project benefits. Our extensive experience in achieving consensus among various Cities, Counties and Caltrans with different systems and, quite often, different engineering and political concerns, is a definite asset that will help us achieve project objectives, as was the case in AGA's development of a large scale multijurisdictional traffic signal coordination project for 260 signals in Orange County's GMA-6, and also for 650 signals involving 17 jurisdictions throughout the San Bernardino Valley for SANBAG.
- Our Team is especially experienced in the turnkey design/construction of Traffic Management Centers (TMCs). We recently completed the design/construction of the Buena Park TMC as part of the Citywide ITS Project that we conducted for the City, a project conducted by the Crosstown/CompView/AGA Team that included close coordination with Caltrans District 12 staff. It is important to note that the Buena Park Citywide ITS Project was awarded "Project of the Year" by the Orange County Traffic Engineers Council (OCTEC). Other TMCs designed and/or built by our Team members include the Cities of Garden Grove, Los Angeles, San Marcos, and San Diego; DOTs in the States of Nevada, Idaho, and Washington; and Caltrans.
- AGA staff have timed thousands of signals in Orange County alone over the past twenty years, including Citywide and/or multi-corridor coordination timing projects for La Habra, Fountain Valley, Fullerton, Santa Ana, Brea, Buena Park, Huntington Beach, Lake Forest, and Costa Mesa. Additionally, for OCTA, we conducted the Traffic Signal Coordination Forum Project, involving all Orange County cities; developed the Orange County Traffic Signal Coordination Program, the road map for

Mr. Pritam Deshmukh April 20, 2015 Page 2

County-wide signal coordination; conducted the Euclid Street Traffic Signal Synchronization Demonstration Project, OCTA's first multijurisdictional signal coordination project; and completed six additional corridor projects led by OCTA. It is important to note that all these corridor projects were all conducted as turn-key projects, with AGA responsible for all components of the projects. In addition, AGA completed nine additional Project P funded projects led by the cities. Furthermore, as part of OCTA's Consultant Team for the Traffic Signal Synchronization Project (previously referred to as the BRT Project), AGA developed and implemented signal synchronization plans for the Harbor Boulevard, State College Boulevard, and Bristol Street Corridors. It is important to note that Mr. Sadam served as Project Manager for the vast majority of the above listed projects, including design and overseeing installation of fiberoptic communications and upgrades on Harbor Boulevard in Costa Mesa.

- ♦ AGA staff have designed and installed various ITS elements including CCTV, fiberoptic communication systems, wireless interconnect systems, and serial or Ethernet based systems, as well as upgraded central systems including Siemens ACTRA/TACTICS, Econolite Aries and Centracs, McCain QuicNetPro, Intelight MaxView, and Caltrans systems. We also have provided support services for Telvant MIST and Multisonics VMS systems, and we provide complete design/build services, design/manage services or design/bid services as appropriate.
- AGA's methodology for developing optimum coordination timing involves far more than simply plugging traffic count data into off-the-shelf signal timing software programs for generalized conditions. Because of our extensive experience in operating signal systems for a multitude of cities, our coordination timing plans are based on real world conditions often not addressed by others.
- AGA proposes to basically use our same staff members that we have utilized for many years to provide identical services for many similar projects to design and provide the installation/construction of the signal control/communication hardware/software and various other ITS components and to develop, implement, fine-tune and operate the new timing plans for this project. All of our project team members have extensive local Orange County experience in developing and implementing both local and coordination timing plans, specific to all of the controllers utilized on both project routes.
- AGA's overall approach to this project is that we can provide much more than simply conducting various tasks we make systems work. Our goal is to utilize our expertise in helping the various participating agencies develop large scale multijurisdictional signal coordination for the maximum overall public benefit at a reasonable cost.

It should be noted that AGA is requesting no modifications to the City's standard Professional Services Agreement, and that we have no existing or potential conflict of interest which might impair or undermine our ability or credibility regarding the proposed services.

AGA looks forward to working with the Cities of Costa Mesa and Santa Ana on this very important project. If you have any questions or require amplification on any aspect of this proposal, please call Mr. Sadam or me. This Technical Proposal and our accompanying Fee Proposal are valid for a period of 90 days from the date of submittal. Mr. Sadam and I are authorized to negotiate and contractually bind AGA.

Respectfully submitted.

ALBERT GROVER & ASSOCIATES REDACTED

Albert L. Grover, P.E., T.E. President/CEO

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SECTION I: QUALIFICATIONS, RELATED EXPERIENCE AND REFERENCES

QUALIFICATIONS

The City of Costa Mesa Transportation Services Division has requested proposals to provide professional Turn-Key services for the Sunflower Avenue Corridor Project, a coordination timing project funded in part by the Orange County Transportation Authority's (OCTA) Project P grant funds.

Albert Grover & Associates (AGA), in conjunction with our data collection subcontractor National Data & Surveying (NDS), our equipment installation subcontractor Crosstown Electrical & Data, Inc. (Crosstown), our Audio/Video subcontractor CompView, Inc. (CVI), our construction subcontractor Sherwood Builders for Traffic Management Center (TMC) related remodeling, and vendor (Econolite) possess all of the necessary qualifications, experience and manpower to provide the requested services. These services include not only signal timing synchronization services, but also traffic signal/interconnect/ITS component design, equipment purchase and installation, system integration, TMC design and construction, and ongoing operational support services.

AGA's services are not just routine, but rather the application of experience and knowledge to first properly identify a problem and then to provide the most appropriate and cost-effective solution. AGA is not a company that provides only labor service for client designated tasks; rather, AGA provides a high level of intellectual support to accomplish client objectives. AGA's unique blend of Civil Engineers, Traffic Engineers, and skilled technical traffic signal system maintenance/monitoring personnel provides a synergy that typically results in project success beyond expectations.

AGA's wide range of services offered can be divided into six primary areas of expertise: traffic engineering, day-to-day traffic signal operations, transportation planning, civil engineering/ construction management, communication and operational control of traffic signal systems, and actual onsite City Traffic Engineer staffing. While we are well known and respected for our work in all six of these areas, we are perhaps best known for our extensive expertise and experience in the field of multijurisdictional traffic signal coordination. It should also be noted that AGA operates traffic signal systems for various governmental agencies and does so remotely from our Fullerton office, which includes a mini TMC. Our unique "hands-on" signal experience, combined with our senior staff's previous experience as City Traffic Engineers, allows AGA staff to possess a very realistic understanding of what it takes to adequately serve the public while maintaining political harmony.

It is important to note that for both 2008 and 2010 AGA was recognized as one of the most successful architectural, engineering, planning, and environmental consulting firms in the country,

"Congratulations to AGA for winning the prestigious CTF Local Street Project of the Year Award. Well deserved. The AGA team did outstanding work on this project."

Caltrans District 8

having been named as one of the Top 200 "Hot Firms" nationwide, as recognized by ZweigWhite. Additionally, AGA received the "Local Street Project of the Year" award for 2011 from the California Transportation Foundation for the San Bernardino Valley Coordinated Traffic Signal System Project that we conducted for SANBAG, a project that included interconnect design and construction, and timing plan development, implementation and monitoring/maintenance for 650 signalized intersections throughout the San Bernardino Valley, including signals at 48 Caltrans interchanges.



There are many reasons why we feel that the AGA Project Team is most qualified to conduct and successfully complete this corridor project. While all of these reasons are more fully discussed in various sections of this Technical Proposal, key relevant factors include the following:

• We have a thorough knowledge of traffic conditions not only throughout the Sunflower Avenue corridor, but also along the various coordinated crossing arterials that must be considered when developing coordination plans for the corridors. Via our multijurisdictional and/or citywide projects, we have developed coordination timing plans for these crossing arterials. We fully understand the importance of evaluating the impacts to these crossing arterials of the coordination plans that we develop for this corridor.

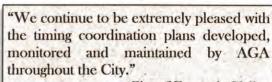


We conducted the Euclid Street Traffic Signal Synchronization Demonstration Project (Euclid Street Project), the first multijurisdictional signal coordination project funded and overseen directly by OCTA. This project, developed during 2006-2007, served as the "test" project for OCTA to assess the overall feasibility and effectiveness of similar future projects such as

Since incorporation in 1993, AGA has become a recognized leader in the field of traffic signal interconnect and coordination timing.

the project that is the subject of this RFP. The significant improvements in all Measures of Effectiveness (MOEs) obtained by AGA, due in no small part to our project management expertise and our ability to achieve consensus among multiple cities and Caltrans, became the standard that subsequent projects were measured against.

- We were selected by OCTA to conduct both the Chapman Avenue TLSP and Orangethorpe Avenue TLSP Projects, both of which were similar to not only the Euclid Street Project, but also to the Sunflower Avenue corridor that is the subject of the current RFP. As with the Euclid Street Project, significant improvements in all MOEs were achieved on both the Chapman Avenue and Orangethorpe Avenue Projects, portions of which were conducted simultaneously.
- We have developed many Traffic Management Centers in Southern California, including those in use in Caltrans Districts 7, 11, and 12. Recent implementations include the TMCs in the Cities of Buena Park and Garden Grove. Shown below is the TMC designed and constructed by the Crosstown/CVI/AGA Team as part of the Buena Park Citywide ITS Project. This Buena Park project was honored as "Project of the Year" by the Orange County Traffic Engineers Council (OCTEC).
- While we are very well known and respected for our expertise in developing and implementing highly efficient coordinated timing plans, we have extensive expertise and experience in all phases of the proposed projects. Via our many previous multijurisdictional traffic signal
 - interconnect and coordination timing projects, we have designed, constructed, implemented, fine-tuned, operated and maintained WWV/GPS time synchronized independent systems utilizing fiber optic, hardwire, wireless, cellphone, and telephone interconnect methodologies. Recognizing that equipment design and installation are significant components of the Sunflower Avenue Corridor Project, it is important to note that our design/build experience helps to make us good construction, installation and operational managers as well as good designers. The fact that AGA staff actually go into the field to troubleshoot and solve operational problems tremendously enhances our design expertise.
- We are experienced in the design and operation of all types of signal control systems, including Econolite, Siemens, Multisonics, McCain, Naztec, Traconex and Model 170/2070 systems and have, for many years, operated and maintained both Type 90 (NEMA) and Model 170/2070 systems for governmental agencies from our offices in Fullerton. We presently operate/monitor over 300 traffic signals for eight different cities, including Seal Beach, La Habra, Fountain Valley, Fullerton, Montclair, Highland, Rialto and Loma Linda, and recently designed a signal system Master Plan for the City of Highland. All of these systems include coordination with Caltrans signals.
- AGA previously prepared the City of Costa Mesa Traffic Signal System Master Plan which identified specific improvements on each corridor to upgrade the Citywide system. Detailed knowledge of the Citywide Master Plan, recent work on the Baker Street/Placentia Avenue corridor project, the current ongoing Adams Avenue corridor project, and the several timing development and implementation projects in the City will allow AGA to approach the project more holistically and identify/implement cost effective solutions on the project corridor.



City of Fountain Valley





- One of our key staff members who will be instrumental in conducting the Sunflower corridor project Mr. Felipe Ortega has been providing on-call signal system support services to Costa Mesa for the past five years, including troubleshooting the City's VMS system; replacing parts to get the system up and running; bringing additional signals online; and supporting City staff in operating the system on an ongoing basis. This includes assisting the City in converting the VMS system on Harbor Boulevard to the Econolite ASC/3 system.
- One additional key factor further amplifying AGA's unique qualifications to conduct the proposed Sunflower corridor project relates to the ongoing monitoring of signal coordination. The RFP notes that project requirements include two years of continuing signal timing support to monitor, observe, fine-tune and optimize the signal timing and phasing operations of all corridor intersections, including proactively surveying the corridor on a regular and frequent schedule, observing the traffic and fine-tuning the signal timing as required. These are the identical services that AGA has been providing to a wide range of Southern California cities for many years, including citywide monitoring for La Habra, Fountain Valley, Fullerton and Seal Beach in Orange County.
- Our unique combination of experienced Professional Engineers and highly trained Signal System Specialists enables us to provide this service in an efficient, cost-effective manner, with our own Traffic Operations Center (TOC) serving as the hub for this activity.
- Our key employees' previous experience as City Traffic Engineers, and our current service as Contract City Traffic Engineers, allows us the opportunity to view situations "from both sides of the fence." Combined with our many previous consensus-building projects, including the Euclid Street Project, the Bolsa Avenue/1st Street corridor and Tustin Avenue/Rose Drive Corridor Projects, the OCTA Traffic Forum, and the OCTA Orange County Traffic Signal Coordination Program, we are confident that these multijurisdictional projects can be completed to the satisfaction of all responsible agencies.
- Mr. Chalap Sadam, AGA's Vice President, has been designated as Project Manager for this very important project, and will devote as much of his time as necessary to ensure the timeliness, cost-effectiveness and overall success of the projects. Mr. Sadam's extensive experience with Orange County signal synchronization projects has resulted in the establishment of professional relationships with traffic engineering personnel at Caltrans, Orange County, and the majority of the 34 Orange County cities, wherein he is highly respected for his project management and consensus building skills. He will be available for

"I wanted to personally thank...AGA team for quickly lending us a hand in implementing the construction coordination timing...intersections are operating wonderfully. We really appreciate the partnership and teamwork your firm demonstrates."

City of Ontario

any agency meetings and presentations to explain and/or clarify any aspect of the project, whether or not such meetings and presentations have been specified in the Scope of Work. Mr. Sadam will be personally responsible for all project work efforts and deliverables, with overall project oversight provided by Mr. Al Grover, AGA's Principal in Charge for this project, and quality control provided by Mr. Mark Miller. In short, Mr. Sadam, Mr. Grover, and Mr. Miller will do whatever is necessary to ensure the success of this project.

RELATED EXPERIENCE

Staff of AGA in general, and Mr. Sadam in particular, have been providing professional consulting traffic engineering services for both municipalities and private developers for over twenty years. Overall, staff of AGA have provided consulting services to ten California counties and more than 100 California cities during this time.

AGA is especially qualified and experienced in the field of multijurisdictional traffic signal interconnect and timing synchronization and other ITS elements. Our staff has completed timing plans for more than 6,500 traffic signals in California alone. We have designed, analyzed and evaluated various hardware and software components for the majority of the different traffic signal control and synchronization systems. We have experience with Model 170/2070 systems (BI Tran QuicNet), 2070 systems (BI Tran QuicNet and

AGA has been conducting multijurisdictional signal coordination projects since 1993, well before other Traffic Engineering firms even considered such projects.

ACTRA/Tactics), Type 90 systems (Econolite, Siemens, Naztec, Multisonics and Traconex), Caltrans CTNET systems, and UTCS systems. We have designed and analyzed Time Base Coordination Systems and fiber optic, hardwire, microwave, spread spectrum,



Sunflower Avenue Corridor Project

cellphone and telephone interconnect systems. We have coordinated City signals with Catrans on-and off-ramp signals, and have for many years controlled a Type 90 (ACTRA) system for the City of La Habra, an ACTRA/Tactics system (previously a Multisonics VMS system like Costa Mesa's system) in Fullerton, and Model 170/2070 systems for the Cities of Montclair, Highland, Rialto, and Seal Beach, and Caltrans from our office in Fullerton.

We previously completed a joint Santa Ana/Costa Mesa project that developed appropriate interties between the two cities' signal systems for various arterials. Additionally, as part of OCTA's TSS (previously designated as Bus Rapid Transit – BRT) Project, we were responsible for developing timing and converting from VMS Multisonics controllers to Econolite controllers, including utilization of fiberoptic communication and integration with the MIST central system for signals on Harbor Boulevard in Costa Mesa. Several of the most relevant similar turn-key projects conducted for OCTA by AGA are the previously noted Euclid Street Project, a project involving 62 intersections in six cities; the Chapman Avenue TLSP Project, which included 52 intersections for four agencies; and the Orangethorpe Avenue TLSP Project, which included 43 intersections for seven agencies and several additional corridor projects. All of these projects included coordination with Caltrans. These similar turn-key projects included hardware installation by the same AGA team members. Some of the turn-key components included controller upgrades, cabinet replacements, fiber switches, splice enclosures, pullboxes, CCTV, Control Center upgrades, conduit installation, signal hardware improvements, and the development of As-Built plans.

AGA staff have also completed many other multijurisdictional signal timing projects for cities in Orange County, including the following:

- ◆ City of La Habra/City of Brea/Caltrans signal coordination timing project for 74 signalized intersections.
- City of Buena Park/Caltrans signal coordination timing project for 66 signalized intersections.
- ◆ City of Fountain Valley/Caltrans signal coordination timing project for 52 signalized intersections.
- ◆ City of Buena Park Citywide Intelligent Transportation System Project.
- City of Fullerton led Four Corridors Project including 75 signalized intersections.

The most relevant recently completed projects were also OCTA sponsored projects. The Euclid Street Traffic Signal Synchronization Demonstration Project, OCTA's first multijurisdictional corridor interconnect and coordination project, basically set the stage for all of OCTA's subsequent Proposition 1B TLSP Projects, including the six corridor projects conducted by AGA. It should be noted that the Chapman Avenue TLSP Project and the Bastanchury Road RTSSP Project included the installation of the Centracs central signal control system at the City of Garden Grove and the City of Placentia respectively. As part of our current Antonio Parkway RTSSP Project we will also be installing Centracs for the County of Orange. All components of the proposed Sunflower corridor project were likewise included in those projects, including design, system integration/construction management, development/ implementation/fine-tuning of coordination timing plans, and providing ongoing system maintenance and operations.

It should be noted that the same key AGA Project Team members identified in the following Section II of this proposal were instrumental in conducting all of the previously listed projects. Because our key senior staff have worked together for more than eighteen years, we bring a wealth of experience, expertise, familiarity and continuity to the project. We also have extensive experience working with various vendors and their products which will be utilized in this turn-key project, including Telvent (MIST central control system) and Econolite (ASC/3 controllers). Likewise, we have worked for many years with NDS, the traffic data collection firm; Crosstown, the equipment installation subcontractor; and CVI, the audio/video subcontractor. Our most recent projects wherein we teamed with NDS, Crosstown, and CVI were the multiple OCTA led corridor projects, and the Buena Park Citywide ITS Project where Sherwood Builders assisted in the TMC remodeling efforts. Relevant contact information is as follows:

National Data & Surveying 8370 Wilshire Blvd, Ste 205 Beverly Hills, CA 90211 Steve Souter (323) 782-0090 Crosstown Electrical & Data, Inc. 5463 Diaz St Irwindale, CA 91706 David Heermance (626) 813-6693 CompView 10650 Humbolt St Los Alamitos, CA 90720 Dan Winovitch (562) 430-9500 Sherwood Builders 1401 S. Beach Blvd, Ste B La Habra, CA 90631 Ralph Grant (562) 458-5386



REFERENCES

Following is a listing of several of the most recent similar relevant projects completed by AGA. Included are the names of contact persons and current telephone numbers. It is important to note that the most important aspect of all of the multijurisdictional projects conducted by AGA is the establishing of a consensus among all participating agencies. More often than not, hardware and software incompatibilities between adjoining jurisdictions are simply engineering problems requiring engineering solutions. Of more importance is the resolution of conflicting political concerns between adjoining jurisdictions. Our key strength is our ability to work with divergent personalities in different agencies to resolve these concerns. This has been an important factor in our successful multijurisdictional projects involving coordination between different vendor type systems and involving Caltrans. We strongly urge the City of Costa Mesa to contact the listed references regarding their experience with AGA.

AGA's approach to interconnect and synchronization projects is that we do more than simply prepare interconnect and timing plans – we actually make the system work.

Fullerton Citywide Timing Plan Development and Implementation

Initial project was for development, implementation and fine-tuning of multijurisdictional coordination timing plans for 120 intersections, including Caltrans ramps, for four separate time periods. Also included was development of a Local Timing Guidelines Manual. The initial multijurisdictional project included signals in the Cities of Anaheim, Buena Park, Fullerton, Placentia, and Yorba Linda. Subsequent multijurisdictional corridor timing projects include Bastanchury, Yorba Linda, Malvern, Chapman, State College, Harbor, Rosecrans, Commonwealth, Magnolia, Brookhurst and Gilbert corridors, completed at various times for various costs. AGA currently provides ongoing monitoring for all Fullerton signals.

Mr. Don Hoppe City of Fullerton 303 W. Commonwealth Ave. Fullerton, CA 92832 (714) 738-6864 dhoppe@cityoffullerton.com

La Habra/Brea/Caltrans Coordinated Signal System Project and Traffic Signal Synchronization Projects

Development, implementation, fine-tuning and monitoring of 74 signalized intersections, including Caltrans signals on Imperial Highway (SR-90) and Beach Boulevard (SR-39) and at various freeway ramp intersections. Includes ongoing monitoring of coordination timing citywide. Completed in 2011 at a cost of \$273,000. Lambert Road RTSSP Project was completed in 2013 at a cost of \$344,000. La Habra Bivd/Central Ave/State College Blvd RTSSP Project is scheduled to be completed in 2015 at a cost of \$315,000.

Mr. Nelson Wong City of La Habra 201 East La Habra Boulevard La Habra, CA 90631 (562) 905-9620 nelson_wong@lahabracity.com

OCTA TLSP and RTSSP Projects

Design of signal interconnect/communication improvements; construction management of all improvements; system integration; development, implementation, and fine-tuning of coordination timing plans; monitoring and maintenance of coordination; preparation of final report identifying project objectives, scope, findings, improvements, and recommendations for continued operation. Chapman TLSP was completed in 2010 at a cost of \$798,000, Orangethorpe TLSP in 2011 at \$698,000, Tustin Ave/Rose Dr RTSSP in 2013 at \$632,000, and Bolsa Ave/1st St RTSSP in 2014 at \$1,124,000.

Mr. Ron Keith
Principal Traffic Engineer
OCTA
550 S Main St
Orange, CA 92863
(714) 560-5990
rkeith@octa.net

City of Buena Park Citywide Intelligent Transportation System Project

Development of City's Fiber Optic Master Plan and Citywide IP Scheme, design of Signal Interconnect/Communication Plans, Fiber Optic Installation Design Plans, CCTV System Installation Plans and new Traffic Management Center; construction management of all improvements. Completed in 2012 at a cost of \$952,000.

Mr. Dennis Barnes City of Buena Park 6650 Beach Boulevard Buena Park, CA 90622 (714) 562-3696 dbarnes@buenapark.com



SECTION II: PROPOSED STAFFING/PROJECT ORGANIZATION

AGA's extensive expertise and experience in designing and installing interconnect systems, in developing, implementing, fine-tuning and operating traffic signal timing and coordination plans, and *most importantly in helping resolve both technical and policy traffic management issues*, enables us to provide the required consultant services entirely in-house, with the exception of data collection tasks, which will be conducted by our subconsultant, National Data & Surveying Services (NDS), and construction related tasks, which will be conducted by our equipment installation subcontractor, Crosstown Electrical & Data, Inc. (Crosstown), our Traffic Management Center subcontractor CompView (CVI), and Sherwood Builders for TMC remodeling/construction aspects.

All tasks defined in the RFP, and elaborated upon in Section III of this proposal, will be directly overseen and managed by **Mr. Chalap Sadam**, P.E., T.E., Vice President. All meetings will be chaired by Mr. Sadam, who will also, if required, personally make any required presentations to City staff, Commissions, or Councils. As shown on the Project Organization Chart (Figure 1), all AGA Task Managers will report directly to Mr. Sadam.

Mr. Sadam is a registered Civil and Traffic Engineer with a Master of Science, Civil Engineering (Transportation) degree from Virginia Polytechnic Institute and State University, and a Master of Business Administration degree from the University of Southern California. He was AGA's Project Manager for joint Costa Mesa/Huntington Beach and Costa Mesa/Santa Ana coordination timing projects; for citywide signal timing projects in the Cities of La Habra, Fullerton, Fountain Valley, and Santa Ana; for the San Bernardino Valley Coordinated Traffic Signal System Project; and for various projects conducted by AGA for OCTA, including the Euclid Street Traffic Signal Synchronization Demonstration Project, and the subsequent six corridor projects. Mr. Sadam also served as Assistant Project Manager for the Orange County Traffic Signal Coordination Program that AGA completed for OCTA. He was also responsible for developing multijurisdictional coordination signal timing plans for hundreds of signals for the various Orange County GMA-2 and GMA-6 multijurisdictional coordination signal timing projects conducted by AGA.

Because multi-level review of both individual components and final work products is the key to quality control, AGA utilizes the extensive expertise and experience of senior staff members to review all work products to ensure that project goals are met and that agency review efforts can be minimized.

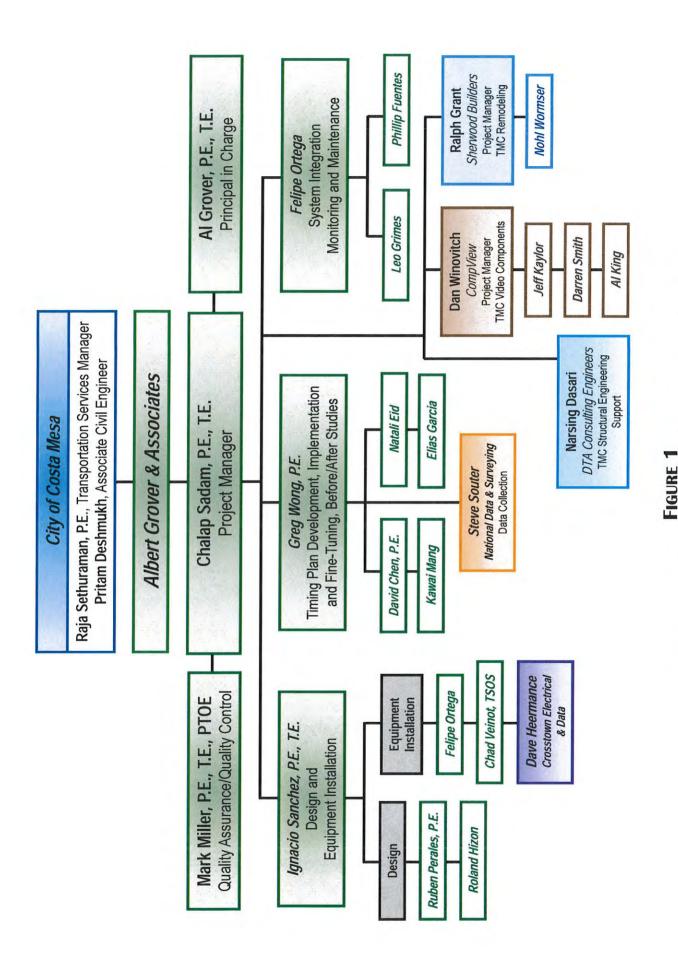
Mr. Sadam joined Albert Grover & Associates in 1993 as a Transportation Engineer, and provides expertise in the preparation of traffic impact studies, development of transportation planning models to evaluate long range impacts, development of signal coordination master plans, preparation of traffic signal coordination timing plans, design and operation of traffic signal systems, design of intersection improvement plans, traffic signal interconnect plans and ITS plans, traffic accident analysis and recommendation of mitigation measures, and the preparation of freeway interchange feasibility studies and Major Investment Studies (MIS). Mr. Sadam has completed numerous traffic impact and transportation planning studies in Southern California.

Mr. Sadam's additional experience includes the development of traffic circulation studies and corridor studies, signal synchronization feasibility studies, parking feasibility studies, street lighting master plans, speed studies, traffic engineering software development and project management. Computer skills include experience in the usage of transportation planning and traffic engineering software such as Synchro, Vissim, TruTraffic, HCS and WEBSTER and ArcView GIS systems. Mr. Sadam is also familiar with relational database management systems and has used Microsoft Access and Oracle databases along with programming languages such as Visual Basic and C/C++.

Full resumes for Mr. Sadam and other key staff are contained in Appendix A.

Serving as Principal in Charge will be Mr. Al Grover, President/CEO. Mr. Grover is a registered Civil and Traffic Engineer with a Master of Engineering (Civil/Transportation) degree from Cornell University. He was AGA's Project Manager for the development of the San Bernardino Valley Coordinated Traffic Signal System Plan, the Coachella Valley Project 2020 Signal Synchronization Feasibility Study, and OCTA Traffic Signal Forum Project and the Orange County Traffic Signal Coordination Program. Mr. Grover has managed and/or conducted scores of traffic signal interconnect and coordination timing projects throughout California, including FETSIM projects for 16 separate grants involving over 500 traffic signals; has been instrumental in proposed development studies, parking studies, bike trail projects, street alignments, traffic signal installations, etc.; set up AGA as a contract operator of local agency signal systems; and established the firm as a leader in Design/Manage (the forerunner of our Design/Build) operations.





COSTA MESA SUNFLOWER AVENUE COORDINATION PROJECT
ORGANIZATION CHART

Prior to forming AGA in 1993, Mr. Grover was Executive Vice President of Mohle-Grover and Associates, where key AGA staff members were also employed, for 12 years. Additionally, Mr. Grover previously was the Director of Traffic and Parking for the City of Beverly Hills; Traffic Engineer for the City of Inglewood, where he implemented a computerized traffic control system operating 105 intersections from City Hall utilizing the UTCS software package; and Project Engineer for Caltrans' Los Angeles Area Freeway Surveillance and Control Project, a test program to evaluate innovative ITS traffic control techniques and devices. Mr. Grover also served as member of the Highway Capacity Manual Committee, which provides a link with national activities relative to signal operations and roadway capacity issues. Recently, Mr. Grover has been actively involved in California Manual of Uniform Traffic Control Devices (CA MUTCD) updates relative to bicycle detection, bicycle timing, and signalized intersections.

Mr. Mark Miller, P.E., T.E., PTOE, Executive Vice President, will be directly responsible for all aspects of Quality Assurance/Quality Control on the proposed project. Mr. Miller has more than 38 years of experience, including more than 20 years serving as a City Traffic Engineer. Mr. Miller has managed many ITS, traffic signal interconnect/coordination and street light system projects. He has developed and implemented design standards, specifications and cost estimates for traffic signals, interconnect projects, CCTV projects, and street light projects. He also has extensive experience in preparing traffic signal coordination and timing plans.

Project management is a critical component of the proposed Sunflower corridor project. Unlike other projects where Task Managers can simply manage their respective tasks and report to the overall Project Manager, this project requires extensive involvement of the Project Manager in all tasks and aspects of the project identically to the manner in which AGA has successfully conducted previous OCTA corridor projects. The Project Manager will be directly responsible for conducting any meetings/workshops that will be required to build the

AGA's depth and breadth of experienced staff with local Orange County expertise allows us to conduct multiple coordination timing projects simultaneously.

consensus necessary to achieve success on these important projects. Mr. Grover, Mr. Sadam, and Mr. Miller are extremely well qualified to manage the proposed project. They have previously managed multijurisdictional traffic signal coordination timing projects, have extensive expertise in all phases of traffic and transportation engineering, and have well-deserved reputations for resolving conflicts and achieving consensus.

Preparation of plans, specifications, cost estimates, bid and contract documents for all new/upgraded traffic signal control and communication hardware and software, and providing equipment installation and construction management services, will be the responsibility of Mr. Ignacio Sanchez, P.E., T.E., Senior Design Engineer, with the assistance of Mr. Ruben Perales, P.E., Design Engineer, Mr. Roland Hizon, and Mr. Chad Veinot, TSOS. Mr. Sanchez has a BS degree in Civil Engineering from the University of Guadalajara, Mexico, and is a licensed professional Civil Engineer and Traffic Engineer in California. His duties at AGA include traffic signal, signing, striping, and signal interconnect plan development; preparation of engineers cost estimates and specifications; CAD design; development of signal coordination timing plans; field topographic surveys; street lighting design; conceptual improvement plans; GPS unit installations; and development and installation of system graphics for various Traffic Control Systems. Mr. Sanchez has prepared plans for Caltrans and other government agencies such as the County of Riverside, County of Los Angeles, Cities of Riverside, Santa Clarita, Victorville, Fullerton, Brea and Huntington Beach, and for private developers such as Home Depot, Rite Aid and Sav-On. He recently worked with the Orange County Transportation Authority (OCTA) as Task Manager of the Bus Rapid Transit (BRT) project, Transit System Priority (TSP). Mr. Perales and Mr. Hizon have extensive experience working on various corridor projects from design aspects to utility coordination to overseeing construction activities as well as OCTA required project accounting. Additionally, both Mr. Perales and Mr. Hizon worked in the preparation of the City of Costa Mesa's Master Plan.

Development, implementation and fine-tuning of coordination timing plans, including all required data collection and conducting "before and after" studies, will be the direct responsibility of Mr. Greg Wong, P.E. with assistance from Mr. David Chen, P.E., Ms. Natali Eid, Ms. Sally Nguyen, and Ms. Kawai Mang. Mr. Wong was instrumental in development of timing plans for the La Habra, Fountain Valley, Santa Ana, and Fullerton Citywide Timing Plans; for the OCTA Euclid Street Traffic Signal Synchronization Demonstration Project and multiple corridor projects; for the 650 intersections in the San Bernardino Valley Coordinated Traffic Signal System Project for SANBAG; and for the OCTA TSS Project which included Harbor Boulevard and Bristol Street in the Cities of Costa Mesa and Santa Ana, and the recent implementation on the Baker St/Placentia Ave corridor.

Mr. Wong rejoined AGA in July 2001 as a Transportation Engineer. He had previously worked for AGA for several years prior to leaving to obtain experience working in the public sector. His duties at AGA include the preparation of traffic signal coordination timing plans, traffic impact studies/analyses, GIS analysis/design/implementation projects, parking circulation analyses, and traffic signal



designs. Mr. Wong has extensive experience in using a variety of transportation planning and traffic engineering software, such as Synchro, Tru Traffic, HCS, and WEBSTER. Other software's include GIS (ArcView), AutoCAD, Microstation, and Microsoft applications. Mr. Wong was a key participant in numerous projects that involved the state, local cities and private agencies. These included County Traffic Signal Synchronization Program (TSSP) projects, street and highway improvement projects, local city projects and County signal upgrades.

Providing system integration services during construction and implementation phases of the project, and providing monitoring and maintenance of both the hardware/software and actual signal coordination for the project corridor during the two year monitoring period after agency acceptance of all improvements, will be overseen by Mr. Felipe Ortega, Advanced System Integrator, with significant assistance provided by Mr. Leo Grimes on signal timing and system integration related services and Mr. Phillip Fuentes on construction oversight services. Mr. Ortega joined Albert Grover & Associates in 2008, after having spent years working with Intersection Development Corporation (IDC) as Vehicle Management System (VMS) Lead Support and also with Team Econolite as Lead Systems Support, Mr. Ortega routinely monitors signal operations and coordination along the streets of various cities that have contracted with AGA to provide such on-going signal monitoring services, looking for both hardware related and timing related problems. He also quickly responds to requests from various cities on an as-needed basis. His unique expertise in both signal timing software and signal hardware enables AGA to quickly identify the actual cause of the problem and take definitive action to provide the appropriate solution, thereby avoiding the frustrating "finger pointing" often experienced with troubleshooting of sophisticated signal systems.

With 30% of our firm being Registered Civil and Traffic Engineers, and 30% being registered Traffic Engineers, AGA is one of the largest Orange County based Traffic Engineering firms with local staff experienced with local traffic.

Mr. Ortega provides technical expertise in the design of new, and upgrading of existing Traffic Management Centers. He is especially well versed in the utilization of various communication media such as fiber optic, wireless Ethernet radios, Ethernet over copper, etc., including previous generation equipment utilizing serial and Frequency Shift Key (FSK) communication. His experience includes assistance in designing CCTV systems for various cities, along with utilizing video detection cameras to provide live video feeds to city Traffic Management Centers and AGA's own TMC. Mr. Ortega has also been involved

in the development and design of Internet Protocol (IP) schemes for cities' traffic signal related equipment, including assisting in the configuration of Layer 2 and 3 Ethernet networking communication switches.

Mr. Ortega, Mr. Grimes, and Mr. Fuentes have all been responsible for conducting field evaluation of hundreds of signalized intersections. They have implemented both local and coordination timing plans in hundreds of signal controllers, including nearly every brand of controller in use in Southern California. They have been responsible for fine-tuning of timing plans at hundreds of locations, and for daily monitoring of signal systems in Orange County and Inland Empire. They have also been responsible for purchasing, installing and integrating hardware and software in local agencies' Traffic Management Centers, including a wide range of central control systems: QuicNet, CTNET, ACTRA, Aries, Centracs, Tactics, among others. They have resolved signal system communication problems, addressing both internal communication issues and multijurisdictional issues. Mr. Ortega's, Mr. Grimes', and Mr. Fuentes' familiarity with, and respect of, signal maintenance contractor's procedures and personnel greatly assists AGA in the implementation, fine-tuning, operation, monitoring and troubleshooting of various signal systems.

Collection of various traffic data, including intersection turning movement counts and 24-hour ADT counts will be conducted by National Data & Surveying Services (NDS). NDS' work will be overseen by Mr. Steve Souter, Chief Operating Officer. NDS was founded in 1997 to provide high quality, reasonably priced raw traffic data collection for government agencies, engineering firms, and private businesses in the Western United States who are engaged in transportation planning. AGA has utilized NDS for the collection of traffic volume data and other similar data collection efforts (such as pedestrian counts, delay studies, parking utilization studies, etc.) for 15 years. Mr. Souter has over 20 years of experience in the traffic data collection business, working for the past nine years at the company's Chief Operating Officer. Mr. Souter will be NDS' Project Manager for the Sunflower corridor project, and will be personally responsible for all data collection.

We also plan to utilize Crosstown Electrical & Data, Inc. (Crosstown) for various equipment installation tasks that are required as part of the three corridor projects. We have worked with this firm for many years on a wide variety of signal interconnect communication projects, including various OCTA funded projects throughout Orange County. Mr. Dave Heermance, Crosstown's Project Manager, provided identical service to AGA as part of our team for the Chapman Avenue TLSP Project, Orangethorpe Avenue TLSP Project, and



the City of Buena Park Citywide ITS Project. Additionally, AGA plans to use Econolite for signal controller cabinets and communication D panel installation services for related locations along the project corridors.

The overall tasks of CompView, Inc. (CVI) will be managed by Mr. Dan Winovitch. Mr. Winovitch has 15 years of professional audio/video (AV) experience. His project management experience includes working with clients, contractors and architects on the design/build of traffic management centers, network operation centers, control rooms for power and water companies, city council chambers, boardrooms, conference rooms, lecture halls and training centers. He is skilled at communicating clearly with clients, colleagues, and contractors from other trades to complete projects on time and on budget. If the City decides to proceed with the construction of the Traffic Management Center, Mr. Jeffrey P. Kaylor will serve as Design Engineer for CVI's TMC AV components. Mr. Kaylor has been involved in the AV integration field for over 40 years. He has worked for international firms including: Walt Disney Imagineering, Pierce-Phelps, and AEI music. Jeff also owned and operated the award winning D&E firm, A/V Design Co. His experience has been not only as a design engineer, but also in operations management. Recent projects he has been responsible for include: Caltrans Traffic Management Centers, San Diego and Los Angeles Counties, Network Operation Centers for companies including SCE, Vertex & SBC, Gene Autry Western Heritage Museum, Disney/MGM Park, and the City of Buena Park TMC and the City of Garden Grove TMC.

CVI's System Integration efforts will be managed by Mr. Darren Smith. Mr. Smith has 26 years of experience in the design, integration, engineering and project management of AV, broadcast, theatrical and concert sound systems for corporate headquarters, theatres, conference facilities, hospitality, sports and entertainment venues and religious facilities, as well as numerous concert touring rigs. He is also a highly experienced house and monitor engineer, and production manager for concert, theatrical, corporate and industrial events. His previous ventures include co-owner/operator of systems integration firms. He also brings extensive experience as engineering and operations manager and contract engineer for international systems integration firms. His recent experience includes; Qualcomm San Diego Network Operations Center, CDOT Traffic Operations Center, Commerce City Justice Center, City of Windsor Council Chambers and City Court Systems, City of Pittsburgh Main Data Center, Maine DOT Operations Center, Lockheed AV Systems Relocation, Sahara Hotel and Casino Las Vegas, and NYNY Hotel and Casino Las Vegas.

Remodeling and construction components of the TMC will be completed by **Sherwood Builders** and will be managed by **Mr. Ralph Grant.** Mr. Grant was instrumental in the completion of the City of Buena Park TMC where he managed the remodeling and reconstruction of the new TMC which included new carpeting, new walls, custom built furniture, electrical circuitry, lighting, etc. Assisting Mr. Ralph Grant will be Mr. Nohl Wormser. Mr. Wormser was in charge of coordinating with City staff relative to inspection items and completing the actual construction of the new TMC. Structural engineering support for TMC remodeling, including any additional walls and glass enclosures, will be provided by **Mr. Narsing Dasari** of **DTA Consulting Engineers**. Mr. Darsari provided structural engineering support for many residential and commercial properties including the City of Buena Park City Hall reconstruction.

Summary of Staff Qualifications

Name	Registration/License	Years of Experience	Years with AGA	Education Training	Project Assignment
Chalap Sadam	P.E., Civil, T.E.	25	22	MS-Civil, 1990; MBA, 2002	Project Manager
Al Grover	P.E., Civil, T.E.	49	22	BS-Civil, 1965; MS-Civil, 1966	Project Oversight/Principal in Charge
Mark Miller	P.E., Civil, T.E., P.T.O.E.	41	22	BS-Civil, 1974	Quality Control
Greg Wong	P.E., Civil	19	16	BS-Civil, 1996	Signal Timing
David Chen	P.E., Civil	17	13	MS-Civil, 1999	Signal Timing/Data Collection
Sally Nguyen		8	8	BS-Civil, 2008	Signal Timing
Ignacio Sanchez	P.E., Civil, T.E.	26	11	BS-Civil, 1986	Design
Ruben Perales	P.E., Civil	12	10	BS-Civil, 2004	Design
Felipe Ortega		19	8	Signal Technician Level 2	System Integrator
Leo Grimes		25	15	Signal Technician Level 3	Field Review
Phillip Fuentes	C10 - Electrical	26	9	Signal Technician Level 2	Field Review
Chad Veinot	T.S.O.S.	14	11	Traffic Signal Operations Specialist	Field Review
Roland Hizon	EIT	26	11	BS-Civil, 1982	Project Administration
Pauline Bingham		11	11	BA-History, 1988	Project Administration
Natali Eid		21	21	BA-Business, 2001	Project Administration
Kawai Mang	EIT	1	11	BS-Civil, 2013	Engineering Assistant
Elias Garcia	EIT	1	1	Engineering Student	Engineering Intern



SECTION III: PROJECT UNDERSTANDING, APPROACH, AND SCHEDULE

Via the Citywide Traffic Signal System Master Plan, the City of Costa Mesa has developed an overall plan for coordination of traffic signals on major corridors throughout the City. The proposed Sunflower Avenue Corridor Project is another step in improving Citywide traffic operations. In general, this project will provide for various signal system and communication upgrades, and the development and continued operation of coordinated signal timing plans.

The Sunflower Avenue Corridor, between Main Street on the east and Hyland Avenue on the west, includes traffic signals controlled by the Cities of Costa Mesa and Santa Ana. The Sunflower Avenue roadway varies from a four-lane section with a two-way left turn lane from Hyland Avenue to Bear Street, to a six-lane section from Bear Street to Main Street with typical speed limits of 40 mph. Daily traffic volumes range up to 26,000 vehicles per day (vpd).

The RFP for the proposed project has a defined Scope of Work which identifies specific tasks to be conducted by the consultant. These tasks include overall project management; assessment of traffic signals and arterial network conditions; design and preparation of plans with appropriate specifications for the construction/installation of new and/or upgraded traffic signal control and communication hardware and software; construction and construction management; system integration; development, implementation, and fine-tuning of coordination timing plans; providing ongoing monitoring and maintenance of timing and communication for two years; and preparation of a final report discussing all components of the project. It is important to note that, pursuant to requirements presented in the RFP, this project will be conducted as a "Turn-Key" project, i.e., AGA will be completely responsible for all components of the project as identified above. The AGA Project Team members have discussed this Turn-Key project extensively and have agreed on the following project approach, which is based in general on the RFP; the Orange County Traffic Signal Coordination Program that AGA prepared for OCTA; the Citywide Traffic Signal System Master Plan for Costa Mesa; discussions with traffic engineering personnel of City of Costa Mesa; and our previous experience in designing, installing, operating and maintaining many multi-jurisdictional interconnected traffic signal systems. Specifics of our approach are based on our recent project experience developing, implementing, fine tuning and monitoring multi-jurisdictional coordination traffic signal timing plans on Harbor Boulevard, Adams Avenue, Fairview Road and Bristol Street, including the recent Baker St/Placentia Ave Corridor Project, which we conducted for the City; and on our specific knowledge of the signal system hardware and software particulars for the cities participating in the various projects that we have acquired via our previous citywide and/or multijurisdictional coordination timing projects.

It is important to recognize that effective traffic signal synchronization consists of appropriate traffic signal infrastructure, optimum intersection capacity, coordinated signal timing, and the maintenance, upkeep and monitoring of this integrated system to ensure that the capacity gained with the initial inter-jurisdictional coordinated system is continued on a long-term basis. AGA proposes to apply this effective approach to traffic signal synchronization while conducting the three corridor projects in order to ensure ongoing benefits for motorists in the Costa Mesa region.

Key strategies available with AGA to create effective traffic signal synchronization include:

- The use of a common time source to throughout the project corridor for accurate time of day.
- The use of a common signal system background cycle length when developing optimized coordination traffic signal timings throughout the corridor.
- The development, implementation, and fine-tuning of optimized signal timing parameters based on prevailing traffic patterns.
- Recognizing the multi-agency common goal of increasing arterial thru-put capacity with reduced stops and delays.
- Achieving improvements in arterial traffic carrying capacities, such as those achieved via traffic signal modifications or minor roadway striping changes.
- Obtaining cooperation and support from City staff.
- The use of upgraded signal controllers/assemblies and software and integration with the respective agency central systems to improve efficiencies;
- Providing CCTV traffic surveillance cameras at selection locations.
- Upgrading traffic signal and signal communications (fiber optic, wireless etc..) along the project route;
- Providing additional fine-tuning and monitoring of signal timings to ensure arterial capacity gains with traffic signal synchronization are sustained on a long-term basis.



The provision of upgraded controllers and communication systems, and integration with the central systems, are very essential for implementation and achievement of optimized coordination signal timings on the corridor, as well as providing the ability to monitor and fine tune timings on an on-going basis. A key component of AGA's services is to ensure that all of these components are implemented and function as designed in order to maintain the resulting significant benefits.

AGA's results-oriented leadership is key to our management approach and our proven record of project success.

The project, in general, consists of providing communication and signal timing/coordination improvements along the Sunflower corridor. As noted, the project will be conducted as a "Turn-Key" project, i.e., all equipment design/purchase/ installation/construction/operation will be provided by the AGA Team, including coordination timing plan development, implementation, fine-tuning and assessment. All cost allocations will be the direct responsibility of the Turn-Key Manager (AGA).

AGA staff experience in integrating the central system hardware (computer servers, workstations, Ethernet switches, modems, port servers, GPS servers) with field elements including interfacing with traffic signal system vendors, communication systems specialists and respective agency Information Technology staff will be key to project success. Additionally, due to our on-going signal system monitoring projects with various agencies, AGA is fully knowledgeable of each of the systems' complexities and key interrelationships of hardware, software, and people.

The following is our detailed Scope of Work for this project.

Project Management

Mr. Chalap Sadam, P.E., T.E., will be AGA's Project Manager for this Project. He will be responsible for adherence to the project schedule and, along with Mr. Mark Miller, for maintaining quality control of all project work products, project budget control and invoicing, tracking of project schedule, regular project updates and progress reports, agency comment dispositions and document control and filing.

It is anticipated that all components required to achieve an operating system, including City review times, can be completed within one year of receipt of notice to proceed, with the two year monitoring and maintenance period to follow. The Final Report will be prepared as required. Our preliminary project schedule is included as **Figure 2**. This schedule is based on an assumed Notice to Proceed date of April 7, 2015. Upon receipt of the actual Notice to Proceed, and prior to the project Kick-Off Meeting, AGA will prepare a more detailed project schedule that includes actual start dates, activity durations, product submittal dates, etc., including agency review times.

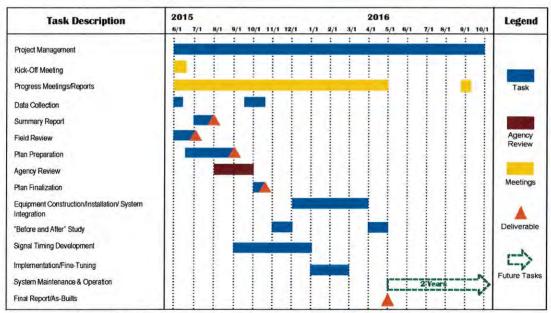


Figure 2: Costa Mesa Sunflower Avenue Corridor Turn-Key Project Schedule



Agendas and minutes will be prepared before/after all meetings and provided to all meeting attendees. Mr. Sadam's extensive experience in conducting forums and in dealing with traffic engineering problems and political concerns, as viewed from both a consultant's and a city's perspective, will be invaluable in providing guidance for this project. Additionally, our involvement in signal coordination projects for La Habra, Fullerton, Buena Park, Huntington Beach, Fountain Valley, and most importantly, Costa Mesa provides us a good background for understanding agencies' concerns.

AGA will conduct a project kick-off meeting with all participating agencies to discuss project objectives, scope of work, project schedule, required cooperative agreements, and various budget factors. As this meeting sets the stage for the entire project, our Project Manager (Chalap Sadam), Design/Construction Task Manager (Ignacio Sanchez), and Timing Plan Task Manager (Greg Wong) will all attend the meeting.

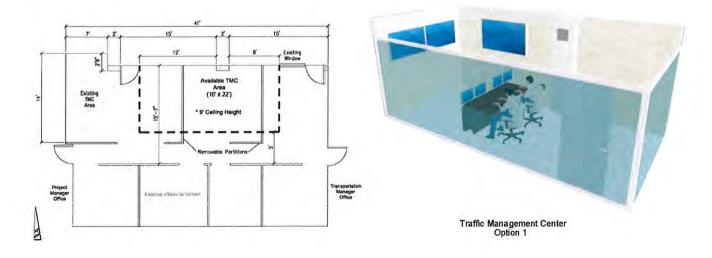
In addition to the Kick-Off Meeting, regular bi-weekly meetings will be held with Costa Mesa staff during the design and construction phases of the project, and quarterly meetings held during the monitoring and maintenance phase of the project. Deliverables will include updated project schedule, presentations and meeting attendance, supporting meeting/presentation materials, agendas and minutes, and bi-weekly project reports.

Project Approach

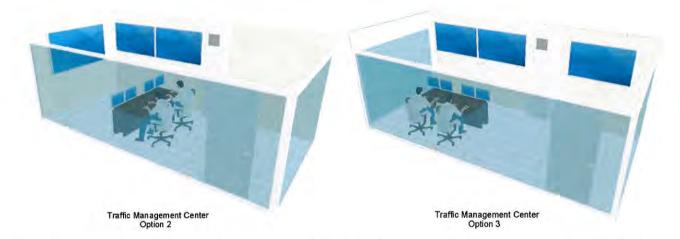
In order to "hit the ground running" on this project, our Team has met with City staff, conducted a detailed field review of potential fiberoptic cable/conduit routing paths, and examined the existing TMC. Detailed below are our initial thoughts regarding two key components of the project: the potential fiberoptic routing path along Sunflower Avenue and possible alternate fiber routing to tie in to the fiber optic trunk line, and the design of the new TMC at City Hall.

AGA has identified an alternate route for the fiber optic cable installation at the west end of the project to tie in to the existing fiber optic cable trunk line on Harbor Boulevard. Based on our preliminary field review and our previous project experience in the City of Costa Mesa, the existing fiber optic trunk line currently ends at the intersection of Harbor Boulevard and South Coast Drive. Utilizing the existing conduit on Susan Street between Sunflower Avenue and South Coast Drive and installing new conduit on South Coast Drive between Susan Street and Harbor Boulevard and leveraging available conduit on portions of this section would allow the City to tie in to the existing fiber optic trunk line and complete the northern ring as laid out on the City's Master Plan. It would also avoid delays due to the coordination required with the railroad company if the new conduit were to be installed on Sunflower Avenue between Susan Street and Harbor Boulevard where a railroad crossing exists.

One additional item of importance relates to the relocation/construction of the new Traffic Management Center at City Hall. Our Team has developed several initial concepts for the layout of the new TMC at City Hall. A floor plan of the existing room where the TMC will be installed and the conceptual layouts of the TMC are shown below. Additional conceptual renderings can be found in Appendix B.







TMC 1 Description: In the first layout there will be two 55" LED Flat Panels mounted on a new wall to be constructed along with a new 70"+ LED Flat Panel mounted on the existing north wall. The Operators Console, facing west towards the two 55" LED Flat Panels, will be for two people. Each Operator will have a PC with Dual DVI Graphics Outputs. We will place a DVI distribution amplifier on each output allowing for feeds to both the Operators local monitor and the 8X4 DVI matrix switch. If desired the City can provide a Cable box for television input to the AV switch. We will program a Crestron Controller to provide the Switching, Monitor On/Off and Cable TV transport controls. All control pages will be HTML based. The Operator will open an Internet Explorer window and click on the Crestron Control link in the favorites. This will serve up the control pages to the Operator's PC. The TMC will be enclosed via the installation of glass partitions/walls to allow for viewing of the TMC from the outside.

TMC 2 Description: In the second layout there will be one 90" LED Flat Panel mounted on a new wall to be constructed along with two 70" LED Flat Panels mounted on the existing north wall. Similar to the first layout, the Operators Console, facing west towards the 90" LED Flat Panel, will be for two people and will include the equipment as detailed above.

TMC 3 Description: In the third layout there will be two 70" LED Flat Panels mounted on the existing north wall to the left of the existing column. An additional 90" LED Flat Panel will be mounted on the north wall to the right of the existing column. The Operators Console, facing north towards the two 70" LED Flat Panels, will be for two people and will include the equipment as detailed above.

Additional layouts, including the reuse of existing TMC with minor modifications will be prepared in consultation with the City. In recommending a particular TMC option, the AGA team will also consider the lighting levels, heat generation and dissipation, requirement and availability of HVAC and duct work, and server noise levels including potential relocation of server hardware to a separate location. Additionally, in lieu of TMC improvements, AGA will also present alternatives for potential upgrade of the central signal system to Econolite Centracs system. AGA previously assisted the City of Placentia and the County of Orange in upgrading to Centracs system by combining resources from various projects.

Data Collection

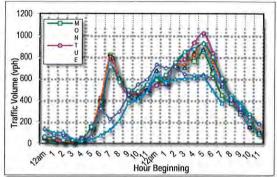
It is important to obtain all appropriate data elements that are required for the design of various signal system and interconnect communication improvements and the development of optimal coordinated signal timing. Such items include as-built roadway, signal, and communication plans; aerial photos; signal timings and agency preferences; data to better understand prevailing traffic conditions; traffic patterns and peaking characteristics; usage and magnitude of vehicular traffic as well as pedestrians and bicycles; school area traffic; high intensity retail traffic; and any unusual traffic patterns that may be governed by special uses such as with area churches or major parks on the weekends. The following data will be collected:

Existing signal timing sheets and existing coordination timing plans for the project corridor as well as any crossing arterials; as-built
roadway, communication and signal plans; aerial photos, maps and collision diagrams; speed data; and any available traffic
counts.



chart is shown on the following page.

- ♦ Agency preferences related to signal timing lead/lag phasing, minimum left-turn splits, cycle lengths, use of preferred or conditional service, coordination time periods, full actuated vs. semi-actuated coordination, use of pedestrian override, weekend coordination, and local timing parameters (Walk, pedestrian clearance, yellow, all red, gap and extension timing).
- Average Daily Traffic 24-hour counts at various critical locations along the corridor, because traffic patterns will not be constant and
 may change at major cross streets. Additionally, graphs will be developed that show hourly traffic volume variations for weekday
 and weekends, and by location. A sample hourly traffic volume variation
- Available daily traffic counts from the City for all major crossing arterials that have a bearing on corridor traffic flow patterns.
- Information on any construction activities on the corridor and other streets in the immediate vicinity.
- Two-hour peak period turning movement counts for the weekday (AM, midday and PM) and weekend (midday) at key project intersections. Additional traffic counts will be collected at school areas where the school closing times may not coincide with typical peaks. In addition, traffic counts will also be collected at major shopping areas particularly South Coast Plaza, and in the vicinity of other special traffic generators.



Additionally, the number of pedestrian and bicycle users, as well as the number of pedestrian actuations occurring by crosswalk, will also be collected. AGA's experienced signal timing engineers will evaluate the above data elements and provide an assessment of prevailing traffic patterns and conditions on the project corridor.

Deliverables will consist of a report summarizing all data collected, including turning movement counts, 24-hour traffic volumes, and drawings of intersection lane geometric features.

Field Review

In the development of signal system/ interconnect communication improvement plans and coordination signal timing plans, it is imperative to have appropriate intersection geometrics, signal phasing, arterial link speeds, an understanding of existing traffic signal system and communication equipment and its capabilities, knowledge of closely spaced intersections and its impact, location of major traffic generators, an assessment of existing traffic conditions and any deficiencies at any of the project intersections and along the project corridor. For this project, the field data inventory will be directly overseen by AGA's Project Manager so that the prevailing conditions in the project area are better understood.

The AGA Team will collect field data in sufficient quantity to identify existing deficiencies, existing system capabilities and operations. Using data collected as a starting point (including as-built plans and aerial photos), and with input from the cities and Caltrans, the AGA Team will conduct extensive field reviews throughout the project corridor to identify and assess all components that affect signal coordination, including:

- Intersection lane geometrics, including number, usage of each lane; length of left/right turning lanes; distance between signalized intersections; and corridor lane configurations and lane widths, as appropriate.
- Existing signal operation characteristics signal phasing, cycle lengths, protected/permissive left-turn operation (including first car detection vs. queue detection), lead-lag phasing, right-turn overlap phasing and U-turn restrictions.
- Traffic signal controller and cabinet type, make, brand, software & version; interconnect equipment, telemetry, modems and switches; maintenance condition of traffic signal equipment including controllers; time referencing setup and daily time clock drift.
- Digital photos of equipment inside traffic signal cabinet and identification of any deficiencies.
- Special characteristics such as proximity to adjacent intersections and any senior centers; presence and location of bus stops (near-side vs. far-side); location of driveways; on-street parking, parking maneuvers, and parking restrictions; adequacy of left-turn and right-turn storage; intersections with high volumes of pedestrians and bicyclists; areas with high volumes of trucks and buses; high volume un-signalized intersections; and impact of freeway access points on the project corridor and in the immediate vicinity on cross streets.



- Over-saturated intersections and measures to improve operations; uneven lane distribution, including impact to saturation flow rate
 due to a lane drop within a few hundred feet of the intersection; unbalanced traffic distribution of a dual left-turn lane resulting in
 lower saturation flows; and observations for queuing and queue spillovers, including potential lane blockages.
- Traffic signal detection, both stop bar detectors and advance detectors, their timings and maintenance status; pedestrian push buttons and condition; sensitivity and settings of video detection, particularly for false calls or even dropped calls; and any unusual recall phases and reasons thereof.
- For intersections that may require minor intersection geometric changes or signal modifications, AGA will conduct a detailed Highway Capacity Manual based capacity, timing and queuing analysis to determine appropriate improvements.

Improvement Plans Preparation

Based on data collected and the Field Review conducted, AGA will develop plans, specifications, and cost allocations as required for our Turn-Key Team's installation of new and/or upgraded traffic signal control and communication equipment and various other ITS elements as specifically detailed in the RFP for this project. In addition to preparing the Design Report for the proposed system improvements for the Sunflower Avenue Corridor, we will also <u>update</u> the previous AGA developed "City of Costa Mesa Traffic Signal System Master Plan". The Master Plan update will allow the City for better planning and integration of various corridor project components at the TMC. Figure 3 graphically displays the project corridor and the locations of the City's fiberoptic core rings, key components of the overall traffic signal control and communication infrastructure. Plans for improvements will be prepared by AGA in accordance with City requirements.

The development process for the Turn-Key plans, which in essence will resemble typical plans will include utility company reviews and be prepared on 24"x36" mylar sheets, signed and sealed by Mr. Chalap Sadam, a California licensed Civil Engineer. Detail drawings will be at a 1" = 20' scale. All plans will be prepared and submitted in AutoCAD format. Because of the Turn-Key nature of major components of the project, formal cost estimations will not be provided but, rather, costing will be included in a spreadsheet format detailing the total project costs of all engineering, hardware, software and installation. Deliverables will include preliminary and final construction plans with appropriate specifications and cost allocations.

For the 3" conduit installation component of the project, detailed plans and specifications along with bid documents will be prepared per City Requirements. Additionally, the AGA Team will answer any questions during the bidding process, assist the City in evaluating the bids received, and address any RFI's during construction.

Equipment Construction/Installation/System Integration

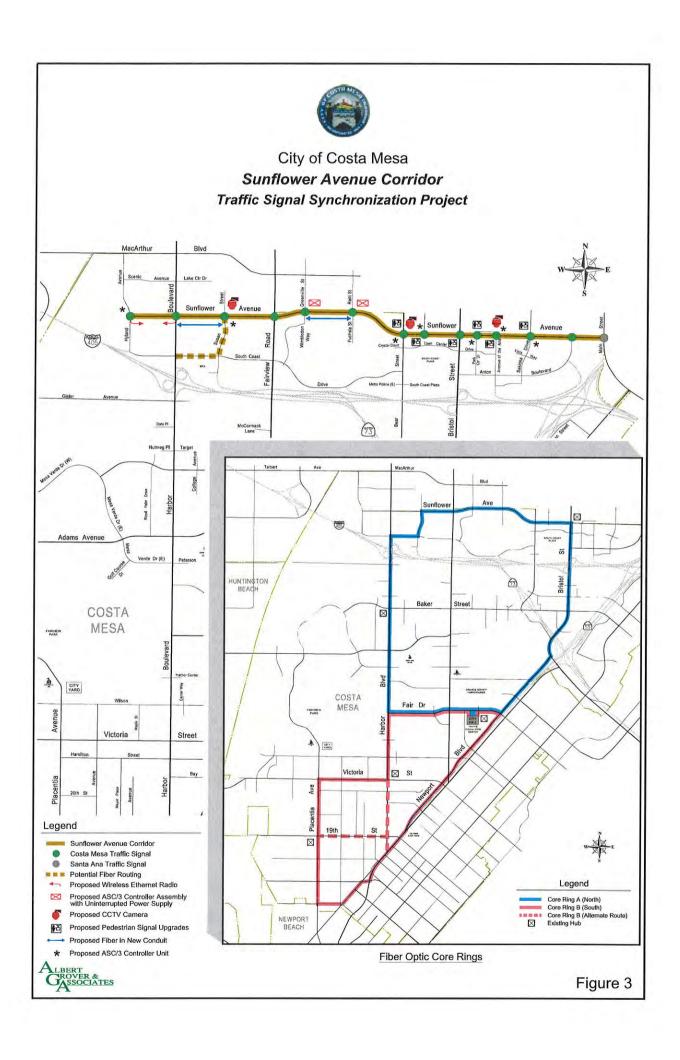
Based on the approved plans, the AGA Team will construct/install all new signal controllers, other signal improvements, communication equipment, CCTV cameras and all other ITS components along the corridor. While the City will provide actual inspection services for all work done, AGA will provide overall system integration and construction support services. Additionally, for the newly interconnected traffic signals, AGA will assist in Internet Protocol (I/P) communications scheme and addressing for Ethernet communication systems. Deliverables will include new equipment and system integration and construction support services. Additionally, as discussed under Project Approach, various conceptual plans and detailed plans will be developed for the Traffic Management Center.

"Before and After" Study

The AGA Team will conduct a "before and after" travel time and delay field study for the each corridor for each peak period for which coordinated timing plans are developed. Measures of Effectiveness (MOE) parameters, which will provide a quantitative basis for determining coordination benefits, will include stops, delays, travel times, reds versus greens, average speeds, fuel consumption, and emissions. MOE's will be compiled using Synchro and TruTraffic software and field measurements using the floating-car technique. According to the floating-car technique, the driver floats with the traffic by passing only as many vehicles as pass the test car. A minimum of three floating car runs will be conducted for each direction for each coordination time period.

As shown on the Project Schedule (Figure 2), "before" studies are planned to be conducted prior to the completion of construction of various signal system and interconnect communication improvements, and "after" studies conducted after construction, system integration, and new timing plan implementation are completed. Deliverables will include a Memorandum with the results of the "before" and "after" studies.





Signal Timing Development

AGA's approach to several key components of the signal timing plan development process is detailed in the following sections.

Arterial Link Speeds and Saturation Flow Rate Measurements: AGA proposes to field measure link speeds for signal coordination using the floating car technique. This field measurement is crucial for determining proper and effective coordination between signals. Additionally, AGA proposes to field measure saturation flow rates at several critical locations along the project arterial. These measured values are then used to determine accurate capacity values, which is key to developing efficient signal progression.

Signal Timing Software: Various signal timing analysis and simulation software programs - Synchro, SimTraffic, Webster and TruTraffic programs will be used for this project. AGA proposes to utilize Synchro in addition to other signal timing optimization programs in an interactive manner. The TruTraffic program, a leading industry tool, will be used to prepare time-space diagrams. SimTraffic, a traffic simulation software, will be used at specific locations such as closely spaced intersections with blocking problems or lane change problems, or at congested intersections with large tuming movement volumes. Micro simulation analysis programs allow for evaluation of capacity starvation or queue spill-over impacts, evaluation of unusually high tuming movement volumes, use of lead-lag left tum phasing, etc.

Cycle Length and Timing Analysis: Before developing any timing plans for project intersections, AGA will analyze the complete network to determine system cycle length requirements and subsystem requirements. Every attempt will be made to minimize the number of subsystems required throughout the project area to maximize the benefits of coordination (reduced delay, stops, fuel usage, mobile source

AGA's experience and expertise in integrating synchronization of project routes with crossing arterials has proven critical to success on previous corridor projects.

emissions, etc.). AGA will also consider existing coordination on many of the crossing arterials with the objective of improving overall arterial network operations. The system cycle length determination is extremely critical, as the cycle length must be minimal to achieve maximum benefits. AGA will identify critical intersections area-wide, and perform detailed capacity/delay analyses using sophisticated delay optimization routines to help establish system/subsystem cycle lengths. When system cycle lengths are arbitrarily selected rather than minimized and optimized, complaints often arise from local side street traffic because of their increased waiting time.

Various signal timing programs will be used to help calculate the signal timing information including cycle lengths, splits, phase sequences and offsets for signalized intersections along each corridor to maximize arterial progression and to reduce delay. The different traffic flow conditions will be analyzed and timing plans will be developed accordingly. The optimization will include the analysis of progression based on optimum phase sequences (leading lefts, lead/lag, etc.) to provide the best arterial progression. The results of the progression analysis will be shown on time-space diagrams. The timing analysis will evaluate queue lengths, stops and delays resulting from the impacts/benefits of coordination.

The existing cycle length systems in the project area range from 110 seconds to 130 seconds. It is important to recognize that while many of the project intersections near the crossing arterials (Harbor Boulevard, Fairview Road, Bristol Street) are fairly large with multiple lanes, many of which are currently coordinated at higher cycle lengths, certain intersections on Sunflower Avenue could operate at lower cycles, particularly during the off-peak hours. For early morning or late evening time periods, it may be appropriate to coordinate traffic signals at a much shorter cycle or use full-actuated coordination, in order to minimize delays to side-streets. Recognizing the changing traffic patterns on Sunflower Avenue at its termination at Main Street including the use of split phase operation at this intersection, a moderate to heavy pedestrian usage on Sunflower Avenue at Stevens/Park Center intersection including direct access to large parking areas here and at Sunflower Avenue/Avenue of the Arts intersection will all be critical when developing appropriate signal coordination timing plans.

Understanding the traffic patterns, the intersection capacities, natural barriers, and what is optimum given the characteristics of a certain time period, are all important when evaluating if local, arterial or system-wide optimization is desired. Serving the needs of pedestrians is a significant component of timing analysis. Knowing the number of pedestrians helps in defining if appropriate Walk time is being provided, such as in school and downtown areas; knowing how many pedestrian actuations are occurring in a time period will help define if the pedestrian override feature may be deployed to help maximize arterial progression. Proper allocation of left-turn splits is important to avoid excessive queues that may block thru traffic. The potential use of protected/permissive left turn (PPLT) phasing can also effectively improve traffic operations at selected project intersections. After careful review of traffic patterns, elimination of



minor deficiencies and assessment of available capacities, AGA will conduct an arterial bandwidth requirement analysis before timespace diagrams are generated so that the timing plans can accommodate the prevailing traffic volumes for each time period.

Lead/Lag Phasing: Another factor that will influence the development of coordination timing plans for the project arterials involves lead/lag phasing at protected left turn locations. AGA will investigate the potential use of such phasing. Primarily, it provides for wider bands and allows for progression with both thru and left turn movements. Without lead/lag phasing, left turns are typically NOT coordinated and queues will be longer, so lead/lag phasing can help when pockets are short. The use of time-space diagrams help indicate when lead/lag phasing may be appropriate. AGA's experienced staff will carefully review the actual need for lead/lag phasing at minor intersections and will minimize its usage for better efficiency of actuated operation.

We will also carefully analyze queuing, especially for left turn pockets to ensure that left turn demand does not overflow and block thru traffic, thereby disrupting traffic progression. Adequate time will be provided to the left-turns both to avoid queue spill-over and minimize resident complaints.

Local Factors: Knowledge of key local factors, such as the location, operating hours and peak flow conditions related to periods of high commute traffic; South Coast Plaza, Segerstrom Center for the Arts, etc., are all very important in preparing timing plans. AGA's knowledge of such local factors, combined with input from the City, will greatly enhance our ability to develop the most appropriate timing plans. Additionally, attention must be given to any crossing that may be interconnected and coordinated when establishing logical break points, if such break points are required. Consideration will also be given to local streets when developing the cycle lengths, to avoid unnecessary delays to local residents and pedestrians. The side street delays will be kept to a minimum by the usage of double cycle or half cycle where feasible.

AGA will also determine if minor modifications to existing signal operations and striping layouts would improve the level of service at project intersections. Such modifications could include converting split-phase operation to standard leading left turn operation, adding a right turn lane at selected intersections, etc.

Timing Plan Deliverables: The RFP requires that coordinated timing plans be developed for the AM, midday and PM weekday traffic conditions, nighttime conditions, and typical weekend midday conditions. The weekend timing plans are especially important in shopping areas and near high-use recreational areas. An additional service being proposed by AGA is the development of holiday shopping plans for roadways in the vicinity of major shopping areas (South Coast Plaza, Metro Pointe, etc). These specialized plans will consider the impact of substantially increased traffic to/from these areas at selected times of the year. Historically, one timing plan was typically used for each time period, say one AM plan for 6:30am to 9:00am on a weekday; however, traffic may not be constant throughout this period, but may peak for an hour. Arterial speeds also concurrently vary with the traffic volumes. Because coordination offset is a function of arterial travel speeds, one timing plan with a set speed will not be adequate. The changing speeds, within a time period, warrant different offsets so that a platoon of vehicles can progress without interruption. AGA recognizes this and will provide several additional timing plans over and above those required in the RFP so as to move the traffic as efficiently as possible along each corridor throughout the day, and not be constrained with a limited number of plans that are tailored only for certain traffic counts and input from City staff.

After initial development of all signal timing plans, they will be submitted to the City for review. Plans will be revised as required, and any necessary new controller timing sheets will be developed. These revisions are typically minimized because AGA will already have reviewed and manually optimized all timing plans. Time-space diagrams will be prepared for all timing plans, to aid in the review process and to graphically document the finalized timing parameters.

Implementation and Fine Tuning of Timing Plans

One area where experience with various controllers and central system software is very important is during the implementation of coordination timings. Certain systems, such as the Type 90 (Multisonics VMS System, Econolite, etc.) require phase splits in percent of cycle or in seconds. Eagle SEPAC controllers require coordination timing splits in seconds. Model 170/2070 controllers with BiTrans McCain program require force-offs. The new Caltrans Traffic Signal Control Program (TSCP) for Model 2070 controllers allows the use of green factors or phase force-offs for implementing coordination timing. Similarly, the coordination offsets are referenced differently on various systems, such as at the beginning or end of coordination phase green, and refer to either ring 1 phases or ring 2 phases.



Other system and/or controller intricacies, such as the mechanism to accomplish lead/lag phasing, proper phase permissive times, yield points, etc., are all important for successful signal coordination implementation.

Based on our extensive experience with various systems, AGA will develop customized coordination timing sheets that are controller specific. These customized sheets will eliminate the implementation errors that are typical when software program output is

implemented directly on different signal systems. Given the difference in hardware and software systems used by various agencies, development of controller specific timing sheets is critical. AGA will implement timing plans at all controllers. Each timing plan will identify cycle lengths, splits and offsets for all signals along each corridor, and will identify start times and end times of each timing plan.

AGA's hands-on experience with a wide variety of controller types and central system software greatly facilitates our implementation of timing plans.

The new timing will be observed in the field, and will be tested for a minimum of two weeks. Working in conjunction with City staff, adjustments to the timing will be made as necessary

and revised timing plan data files will be prepared. After final timing plans are approved by the City, final Time-Space Diagrams will be prepared and provided for each time of day timing plan. All Synchro data files and other electronic files, including a memorandum documenting the signal timing optimization and implementation, will be provided.

System fine tuning is generally defined as ensuring that the entire system is functioning as a whole, that is, as an inter-jurisdictional multi-agency coordinated system. Our proposed fine tuning of project signals includes the following components: (a) Review of system functions, (b) Driving of the system signals to visually review the coordination effectiveness, (c) Communicating with responsible maintenance technicians, and (d) Minor modifications of splits and offsets to respond to traffic fluctuations. Deliverables will include optimized and synchronized traffic signal timing plans and field implementation of optimized traffic signal plans including all required fine-tuning.

System Maintenance and Operation

System maintenance and operations is generally defined as ensuring that the entire system is functioning as a whole, that is, as an interjurisdictional multi-agency coordinated system. Communication between a central system and signals will be monitored along the corridor to ensure necessary conditions for signal synchronization. A variety of methods will be used to monitor, maintain, and repair both communications and detections along the project corridor. The upkeep of communication systems and detection systems will be completed working in conjunction with the respective agency signal maintenance staff. A number of techniques will be used including regular drives along the corridor, analysis of central system report output, and discussions with respective agency staff.

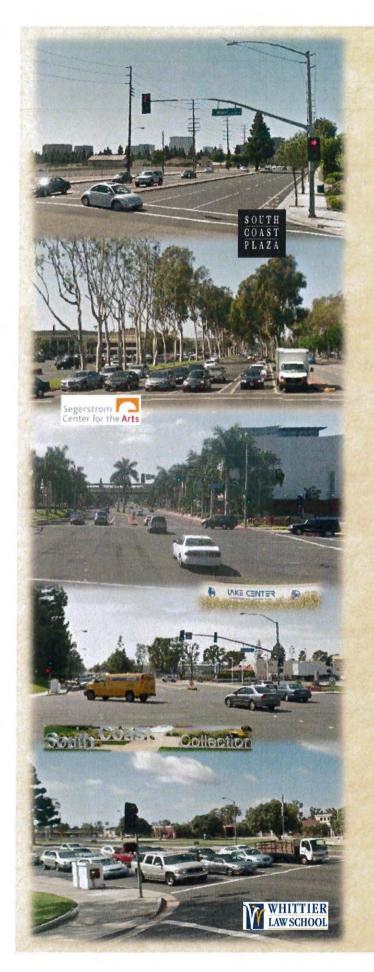
AGA will support City staff in the operation of the system, and will provide continuous monitoring/optimizing of system timing of all project intersections for two years following implementation of signal timing plans to further fine tune the system and modify the plans as needed. This will consist of monitoring of the systems from our offices (via telephone modems or VPN) combined with extensive field reviews. This three year operational period will not officially start until coordination timing plans have been implemented. Deliverables will include revised signal timing plans and a memorandum documenting the changes.

Project Report/As Built Plans

AGA will prepare a Final Timings and Evaluation Technical Report with an executive summary. The final report will provide a complete documentation of the project, including project objectives, scope and location, findings and recommendations, implementation schedule, improvements accomplished, and procedures for continuing maintenance, surveillance, and evaluation of the coordinated signal system. In addition, the report will include a summary of work performed, data collected, "before" and "after" studies and project benefits achieved in terms of fuel savings, travel time reduction, emissions reduced including Green House Gas (GHG) and other measurable parameters. Project results will also be summarized in the OCTA required Corridor Synchronization Performance Index (CSPI). The report will also include for each project intersection the lane configurations, signal phasing, turning movement data, and cycle lengths for existing and proposed timing for all peak periods. In addition, in a separate binder, all the traffic signal phase sequences, signal timing plans, time-space diagrams, and pedestrian timings will be documented. As-Built plans for all constructed improvements will also be prepared and provided to the appropriate agency. Deliverables include a Traffic Signal Synchronization Final Report and as-built plans for all constructed improvements.



EXHIBIT C FEE SCHEDULE



FEE PROPOSAL

to provide

PROFESSIONAL CONSULTANT SERVICES

for the

SUNFLOWER AVENUE TRAFFIC SIGNAL COORDINATION PROJECT

submitted to



TRANSPORTATION SERVICES DIVISION

APRIL 20, 2015

submitted by

ALBERT
GROVER &
ASSOCIATES



April 20, 2015

Mr. Pritam Deshmukh Associate Civil Engineer Transportation Services Division Fourth Floor City Hall 77 Fair Drive Costa Mesa, California 92628

RE: Sunflower Avenue Traffic Signal Coordination Project Fee Proposal

Dear Mr. Deshmukh:

Albert Grover & Associates (AGA) is pleased to respond to the City of Costa Mesa's Request for Proposal (RFP) dated January 5, 2015 to provide professional Turn-Key services for design, equipment purchase and installation, construction management, system integration, and ongoing monitoring/maintenance to improve coordination signal timing on approximately 3.3 miles of Sunflower Avenue encompassing 14 traffic signals controlled by the City of Costa Mesa.

Enclosed please find our Fee Proposal to provide the required services. AGA's total fee for this project amounts to \$629,849, which includes both hardware/software improvements and engineering efforts for the Sunflower Avenue Corridor. Our Fee Proposal consists of four primary components:

- Table 1: The "General Fee Schedule", including lump sum cost for signal coordination, development and implementation of timing, "before and after" studies, reports, etc.; lump sum for construction cost of system improvements; lump sum cost for record drawings, PS&E, and procurement; lump sum cost for PS&E for TMC improvements, an annual and two-year cost for maintenance; and a cumulative not-to-exceed fee.
- <u>Table 2A</u>: A breakdown detailing hourly cost of personnel per task, along with a cumulative not-toexceed amount for the project.
- <u>Table 2B:</u> A breakdown detailing all personnel cost components including labor base rate, other direct costs, overhead and fees.
- <u>Table 2C:</u> A detailed cost estimate for purchase/installation of communication, CCTV hardware improvements, controller units, cabinets, and various other equipment on an intersection-byintersection basis.

Mr. Pritam Deshmukh April 20, 2015 Page 2

AGA looks forward to working with the City of Costa Mesa on this very important project. If you have any questions or require amplification on any aspect of this proposal, please contact Mr. Sadam or me. This Fee Proposal is valid for a period of 90 days from the date of submittal. Mr. Sadam and I are authorized to negotiate and contractually bind AGA.

Respectfully submitted,

ALBERT GROVER & ASSOCIATES REDACTED

Albert L. Grover, P.E., T.E.

President/CEO

Proposals\Costa Mesa\Sunflower\Cost Proposal\Sunflower Cost Letter.docx

Table 1 **GENERAL FEE SCHEDULE Albert Grover & Associates Sunflower Avenue Traffic Signal Coordination Project** April 20, 2015

Part 1 – Signal Coordination, Develop and Implement Timing, Before and After Studies, Reports and Documents for OCTA Reporting)		Lump Sum	\$92,134
Part 2 – System Improvements, Procure and Install Equipment			Lump Sum	\$364,454
Part 3 – Preparation of Record Drawings, Project Plans Specification and Estimate, and Procurement	IS		Lump Sum	\$55,194
Part 4 – Preparation of Plans, Specifications and Estimate for TMC Improvements			Lump Sum	\$39,905
Part 5 – 2 Years Follow-Up Maintenance	Cost Per Year	\$14,081	Lump Sum	\$28,162
Traffic Management Center Cost			Lump Sum	\$50,000
	CUMUL	_ATIVE NOT-TO-EX	CEED FEE:	\$629,849
Additive Work Scope				

		l person \$260		
Traffic Counts at Intersections Weekday (6-hour)	Per Intersection	2 person \$412	Intersection Total	\$2,688
	Per Service Se	l person \$115	•	
Traffic Counts at Intersections Weekend (2-hour)	Per Intersection	2 person \$175	Intersection Total	\$1,160
Install 3" Conduit	Per I	ineal Foot \$35		

City of Costa Mesa - Sunflower Avenue Traffic Signal Coordination Project Estimated Fee Schedule - Hourly Cost of Personnel Per Task Albert Grover & Associates April 20, 2015 Tatale 2A

			, n	Tag Tag	-			Part 2	Part	13	Part 4	Part 5					
Positions snoiti noiteellot strd	Data Collection		vəivəsi bləi'i grimiT langi?	System Timing Developme	enist bas notistremeldml ensist primit to grimut	Before/After Study	Project Report	Equipment Construction/Installation/ System Integration	ansiq finamevorqmi aniu8-2A & notistegerq	WəivəA bləiA ngizəO	Traffic Management Center Concept Plans & 30% Design Plans	System Maintenance & Operation	Traffic Management Center	SAUOH JATOT	Hourly Rate	TOOS JATOT	1000
ar/Vice President		١	œ	20	1 1	ω	4			0		1	0	136	\$ 231	\$	31,368
President/CEO 0	0		0	12	2	0	4	0	0	0	∞	0	0	26	\$ 288		7,496
Vice President 0	0		4	œ	7	0	2	8	20	0	æ	0	0	52	\$ 231	8	11,994
Senior Transportation Engineer 4	4		10	35	10	16	12	0	10	0	0	24	0	120	\$ 192	\$ 2	23,065
Senior Design Engineer 0	0	İ	4	0	0	0	0	42	40	8	40	0	0	134	\$ 173		23,181
ngineer 4			0	တ	0	0	4	36	36	0	0	0	0	98	\$ 165		14,216
4			0	12	٥	0	0	0	0	0	0	0	O	16	\$ 165	69	2,645
Senior Signal Systems Specialist 0 0			_	0	ထ	0	0	24	36	æ	30	20	0	156	\$ 135	\$	20,988
Associate Transportation Engineer 0 0				0	0	0	0	48	48	œ	98	0	0	140	\$ 135	45	18,836
Transportation Engineering Associate 0 0 0		٥	_	0	0	0	0	0	40	٥	8	0	0	22	\$ 135		9,418
Design Engineer 8 8		80	-	24	16	12	မ	0	0	0	0	16	0	96	1		13,147
Signal Systems Specialist 0 0		0		80	18	0	0	30	16	00	12	20	0	112	\$ 127	\$	14,208
scialist 0				00	\$	0	o	32	18	00	24	26	0	164	\$ 127	\$	20,805
4	`	4	+	e 8	12	24	œ	0	0	0	0	18	0	120	\$ 115	₩	13,838
rtation Engineer		14	\dashv	16	12	18	80	٥	0	0	0	0	0	82	\$ 91	es.	7,448
10 1		۱3	\dashv	42	٥	12	0	30	48	0	8	0	0	130	\$ 77		9,994
Engineering Aide 0 0	_			o	٥	0	00	0	٥	0	0	0	0	æ	\$ 77	₩	615
Hourly Total 62 72		12	7	190	106	06	56	274	336	40	220	196	0	1642		\$ 243	243,263
Task Cost																	
Subcontractors & Control System Hardware																	
Weekday & Weekend Turning Movement Counts \$ 3,848	\$ 3,848															69	3.848
\$ 540																	540
					-	\$ 3,000							İ				3.000
Control System Hardware - Costa Mesa			H	İ	-			\$ 323,999								32	323,999
Structural Engineer Support for TMC			H								\$ 5,200						5,200
			\sqcap										\$ 50,000			\$	50,000
		J												SUB-TOTAL)TAL	\$ 386	386,587
				\$92,134	34			\$364,454	\$55,194	194	\$39,905	\$28,162	\$50,000	TOTAL	٩Ľ	\$ 629	629,849
		1															۱

Table 2B

City of Costa Mesa - Sunflower Avenue Traffic Signal Coordination Project Estimated Fee Schedule - Hourly Cost of Personnel Per Task Albert Grover & Associates April 20, 2015

1. DIRECT LABOR	HOURS	RATE	COST
Albert Grover	26	\$79.36	\$2,063
Chalap Sadam	136	\$63.49	\$8,635
Mark Miller	52	\$63.49	\$3,301
Greg Wong	120	\$52.90	\$6,348
Ignacio Sanchez	134	\$47.61	\$6,380
Roland Hizon	86	\$45.50	\$3,913
Natali Eid Esparza	16	\$45.50	\$728
Leo Grimes	156	\$37.03	\$5,777
Ruben Perales	140	\$37.03	\$5,184
Chad Veinot	70	\$37.03	\$2,592
David Chen	90	\$40.21	\$3,619
Phillip Fuentes	112	\$34.92	\$3,911
Felipe Ortega	164	\$34.92	\$5,727
Sally Nguyen	120	\$31.74	\$3,809
Kawai Mang	82	\$25.00	\$2,050
Elias Miramontes	130	\$21.16	\$2,751
Pauline Bingham	8	\$21.16	\$169
Total Direct Labor:	1,642		\$66,957
2. INDIRECT COSTS (overhead, Ga	&A - specify)	V DADE	· . · · · · · · · · · · · · · · · · · ·
Overhead & G&A	239.54%	X BASE = \$66,957	
Total Indirect Costs:	239.3470	400,957	\$160,391
Total India oct 5 5535.			\$100,001
3. FIXED FEE		·	
	7.000/	X BASE =	
Fee Total Fixed Fee:	7.00%	\$227,348	\$15 O14
Total rixed ree.			\$15,914 TOTAL FEE
4. OTHER DIRECT COSTS			IOIALILL
See Table 2A for Details			
		·	
Total Other Direct Costs:			\$386,587
	<u> </u>	· · · · · · · · · · · · · · · · · · ·	- · · · · · · · · · · · · · · · · · · ·
	· · · · · · · · · · · · · · · · · · ·		
TOTAL PROPOSED PRICE			\$629,849

Sunflower Avenue Traffic Signal Synchronization Project Table 2C - Proposed Equipment/Improvements with Costs April 20, 2015

Ŀ									
S E	Item	Unit	Q.f.y	Labor	Material		Тах	Estimate Total	Įa I
-	Sunflower Ave at Main St								
	No Improvements								
			į						
	Total - Sunflower Ave at Main St							\$	1
7	Sunflower Ave at Anton Blvd	: :							
						_			
	No Improvements								
		!				İ			
	Total - Sunflower Ave at Anton Blvd							w	•
60	Sunflower Ave at Flower SUSakioka Dr				:				
	ASC/3 Controller	A	-	\$ 700.00	ss.	2,444.00 \$	195.52	8,03	3,339.52
	Communication D Panel	Æ	ς-	\$ 700.00	49	495.00 \$	39.60		1,234.60
	Ethernet Fiber Switch	E	-	\$ 329.82	69	1,480.00 \$	118.40	\$ 1,9	1,928.22
	6E Pullbox and Concrete	ā	-	\$ 1,401.74	so.	380.00 \$	30.40	€9	1,812.14
	Fiber Splice Endosure Assembly	ā	-	\$ 780.00	\$	400.00	32.00	49	1,212.00
	Fiber Termination Unit (SPH-01P)	a	-	87	ક્ક	300.00	24.00	\$	1,203.38
	SMFO Breakout Cable	片	150	\$ 1.45	8	0.55 \$	0.04	\$	306.60
	Pedestrian Signal Head Upgrade	ā	80		es	156.00 \$	12.48	\$	2,117.44
	Pedestrian Push Button Upgrade	a	80	\$ 54.97	₩	175.00 \$	14.00	3,9	1,951.76
	Total - Sunflower Ave at Flower St/Sakioka Dr							\$ 15,1	15,105,66
4	Sunflower Ave at Avenue of the Arts								
	ASC/3 Controller	Ę	4	\$ 700.00	s	2,444.00 \$	195.52	€\$	3,339.52
	Communication D Panel	ā	4	\$ 700,00	£9	495.00 \$	39.60	\$ 1,2	1,234.60
	Ethernet Fiber Switch	ā	1	\$ 329.82	43	1,480.00 \$	118.40	\$ 1,9	1,928.22
	6E Pullbox and Concrete	Ā	,-	\$ 1,401.74	မှ	380.00 \$	30.40	49	1,812.14
	Fiber Splice Enclosure Assembly	ā	<u></u>	\$ 780.00	\$	400.00	32.00	6	1,212.00
	Fiber Termination Unit (SPH-01P)	ā	Ę	\$ 879.38	es.	300.000	24.00	\$ 1,2	1,203.38
	SMFO Breakout Cable	<u></u> 느	150	\$ 1.45	*	0.55 \$	0.04	\$	306.60
	Pedestrian Signal Head Upgrade	Æ	4	\$ 96.20	₽	156.00 \$	12.48	\$	1,058.72
	Pedestrian Push Button Upgrade	E	4	\$ 54.97	49	175.00 \$	14.00	€9	975.88
	CCTV System	ជ	-	\$ 1,797.04	49	6,165.00 \$	493.20	S	8,455.24
	Total - Sunflower Ave at Avenue of the Arts							\$ 21,5	21,526.30

Rem No.	ltem	Unit	æ		Labor	Material	<u></u>	Тах	<u> </u>	Estimate Total
ιņ	Sunflower Ave at Park Center									
	ASC/3 Controller	4	-	€9	700.00	\$ 2.	2.444.00	195.52	\$	3 339 52
	Communication D Panel	ā	-	()						1.234,60
	Ethernet Fiber Switch	ā	_	69	329.82		1,480.00 \$			1.928.22
	6E Pullbox and Concrete	ā	-	€9	1,401.74					1,812,14
	Fiber Splice Enclosure Assembly	Ð	-	69	780.00	,	400.00	32.00		1,212.00
	Fiber Termination Unit (SPH-01P)	ā	_	↔	879.38	44	300.00			1,203.38
	SMFO Breakout Cable	5	150	67	1.45					306.60
	Pedestrian Signal Head Upgrade	EA	8	υ	96.20	G	156.00 \$	12.48		2,117,44
	Pedestrian Push Button Upgrade	Ð	80	€9	54.97		1			1,951.76
	Total - Sunflower Ave at Park Center								€5	15,105.66
ဖ	Sunflower Ave at Bristol St									
	Pedestrian Signal Head Upgrade	ā	80	49	96.20	8	156.00 \$	12.48	69	2.117.44
	Pedestrian Push Button Upgrade	EA	80	69	54.97		175.00 \$			1,951.76
	Splice new fiber to existing fiber trunk line (existing splice enclosure)	S	-	€9	1,500.00	€9		€	69	1,500.00
	Total - Sunflower Ave at Bristol St						J	İ	s	5,569.20
7	Sunflower Ave at Plaza Dr.									
	ASC/3 Controller	4	-	69	700.00	\$ 2,	2,444.00 \$	195.52	\$	3,339,52
	Communication D Panel	ā	-	69	700.00	\$	495.00 \$	1		1,234.60
	Ethernet Fiber Switch	EA	-	69	329.82	\$	1,480.00 \$	118.40	89	1,928.22
	6E Pullbox and Concrete	Æ	1	69	1,401.74	69	380.00 \$	30,40	€\$	1,812.14
	Fiber Splice Enclosure Assembly	EA	-	₩	780.00	·	400.00	32.00	8	1,212.00
	Fiber Termination Unit (SPH-01P)	EA	1	₩	879.38	69	300.00	24.00	\$	1,203.38
	SMFO Breakout Cable	片	150	49	1.45	\$	0.55 \$			306.60
	Pedestrian Signal Head Upgrade	Ճ	ထ	₩.		\$	156.00 \$	12.48	€9-	2,117.44
	Pedestrian Push Button Upgrade	<u>a</u>	۵	€9	54.97	· &	175.00 \$	14,00		1,951.76
	Total - Sunflower Ave at Plaza Dr								44	15,105.66
∞	Sunflower Ave at Bear St				•					
	ASC/3 Controller	Ā	٠	↔	700.00	\$ 2,	2,444.00	195.52	\$	3,339.52
	Communication D Panel	<u>s</u>	·	₩.	700.00	s	495.00 \$	39.60	₩.	1,234.60
	Ethernet Fiber Switch	5	e ~~	₩.	329.82	\$ 1,	1,480.00 \$	118.40	*	1,928.22
	Ethernet DSL Switch (Actelis ML688)	a	2	643	345.00	,	1,800.00 \$	144.00	\$	4,578.00
	6E Pullbox and Concrete	ā	٠	₩		49	380.00 \$	30.40	*	1,812.14
	Fiber Splice Enclosure Assembly	Ā	۳.	↔		\$	400.00		*	1,212.00
	Fiber Termination Unit (SPH-01P)	5	_	69	879.38	69	300.00	.,	\$	1,203.38
	SMFO Breakout Cable	느	150	63	1.45	49	0.55 \$	0.04	\$	306.60
	Pedestrian Signal Head Upgrade	ā	80	69		€ 1	156.00 \$	12.48	€9	2,117.44
	Pedestrian Push Button Upgrade	Ā	80	es.		\$	175.00	14.00	8	1,951.76
	CCTV System	<u>a</u>	-	49	1,797.04	\$ e'.	6,165.00 \$	493.20		8,455.24
	Totai - Sunflower Ave at Bear St								5	28,138.90

Item No.	ltem	Unit	Qty.		Labor	Σ	Material	Тах		Estim	Estimate Total
6	Sunflower Ave at Fuchsia St/Raitt St					:					
	Type P Controller Assembly (includes ASC/3 controller unit)	ā	-	\$		69	20,304.00	\$	1,624.32	69	21,928.32
	Cabinet Testing	Ą	-	€9	1,675.00	69		ь	1	G	1,675.00
	Install Type P Cabinet on Existing Foundation (reuse existing Type II service)	Æ	-	69	3,000,00	69	+,	69	1	69	3,000.00
	Communication D Panel	ð	-	69	700.00	69	495.00	64	39.60	€9	1,234.60
	Ethernet Fiber Switch	Æ	-	ь	329.82	₩	1,480.00	69	118.40	€	1,928.22
	6E Pullbox and Concrete	ð	-	₩	1,401.74	₩	-	69	30.40	G	1,812.14
	Fiber Splice Enclosure Assembly	ā	-	6 9	780.00	69	400.00	69	32.00	es es	1.212.00
	Fiber Termination Unit (SPH-01P)	4	-	69	879.38	69		69	24.00	. en	1,203,38
	SMFO Breakout Cable	5	150	69	1.45	€9-	0.55	69	0.04	69	306.60
	Uninterrupted Power Supply (Battery Backup System) Total - Sunflower Ave at Eucheta StrBatt St	ā	-	€9	439.76	€9		€	428.00	ω .	6,217.76
5	Sunflower Ave at Wimbledon Way			:						A	40,518.02
	Type P Controller Assembly (includes ASC/3 controller unit)	ā	-	69	-	69	20,304.00	69	1.624.32	69	21,928,32
	Cabinet Testing	Æ	-	69	1,675,00	မာ			1	65	1 675 00
	Install Type P Cabinet on Existing Foundation (reuse existing Type II service)	4	-	69	3,000.00	es.		69	,	69	3,000.00
	Communication D Panel	Ą	-	€9	700.00	63	495.00	₩	39.60	€9	1,234.60
	Ethernet Fiber Switch	Ā	1	49	329.82	ક્ક	1,480.00	G	118.40	↔	1,928.22
	6E Pullbox and Concrete	ā	τ-	↔	1,401.74	es :	380.00	es.	30.40	€>	1,812.14
	Fiber Splice Enclosure Assembly	ā	~	69	780.00	ક્ક	400.00	69	32.00	64	1,212.00
	Fiber Termination Unit (SPH-01P)	ð	- -	₩	879.38	6 9	300.00	€9	24.00	€	1,203.38
	SMFO Breakout Cable	느	150	64	1.45	es	0.55	\$	0.04	69	306.60
	Uninterrupted Power Supply (Battery Backup System)	EA	1	€9	439.76	€	5,350.00	69	428.00	₩.	6,217.76
	Total - Sunflower Ave at Wimbledon Way									•	40,518.02
Ξ	Sunflower Ave at Fairview Rd										
!	Splice new fiber to existing fiber trunk line (existing splice enclosure)	LS	-	8	1,500.00	6 9		69	1	8	1,500.00
	Total - Baker St at Fairview Road									69	1,500.00
12	Sunflower Ave at Susan St										
	ASC/3 Controller	4	-	69	700.00	8	2,444.00	64	195.52	65	3,339.52
	Communication D Panel	ð	-	€9	700.00	69	_	64)	39.60	69	1,234.60
	Ethernet Fiber Switch	Ð	-	69	329.82	8		€9	118.40	69	1,928.22
	6E Pullbox and Concrete	Ð	1	€9	1,401.74	€9	380.00	G	30.40	s o	1,812.14
	Fiber Splice Enclosure Assembly	ā	1	€9	780.00	€9	400.00	69	32.00	69	1,212.00
	Fiber Termination Unit (SPH-01P)	ā	-	64	879.38	ક	300.00	€9	24.00	69	1,203.38
	SMFO Breakout Cable	느	150	₩	1,45	\$	0.55	es-	0.04	€9	90.55
	CCTV System	ង	۴	↔	1,797.04	ક્ક	6,165.00	\$	493.20	tA	8,455.24
	Total - Sunflower Ave at Susan St									4	19,275.65

ftem No.	ltem	Unit	Ogr	تر	Labor	Material	_	Tax	Est	Estimate Total
13	Sunflower Ave at Harbor Blvd									
	Communication D Panel	ā	-	49	700.00	\$	495.00 \$	39.60	G	1,234.60
	Ethernet Fiber Switch	E	۲-	(A)	329.82	\$ 1,4	1,480.00 \$	118.40		1.928.22
	6E Pullbox and Concrete	Ę	۴	69	1,401.74	8	380.00 \$	30,40	€9	1,812.14
	Fiber Splice Enclosure Assembly	Æ	₹~	69	780.00	8	400.00	32.00	69	1,212.00
	Fiber Termination Unit (SPH-01P)	Æ	*	49	879.38	8	300.00	24.00	49	1,203.38
	SMFO Breakout Cable	当	150	₩.	1.45	\$	0.55 \$	0.04	49	90.55
	Wireless Ethernet Radio	EA	*~	()	1,797.04	\$ 2,9	2,950.00 \$	236.00	49	4,983,04
	Total - Sunflower Ave at Harbor Blvd				!	İ			sa.	12,463.93
4	Sunflower Ave at Hyland Ave									
	ASC/3 Controller	EA	٠	€9	700.00	\$ 2,4	2,444.00 \$	195.52	₩	3,339.52
	Communication D Panel	EA	Υ	69	700.00	\$	495.00 \$	39.60	€4	1,234.60
	Wireless Ethernet Radio	EA	-	₩	1,797.04	\$ 2,9	2,950.00 \$	236.00	4	4,983.04
	Total - Sunflower Ave at Hyland Ave								49	9,557.16
15	3" Conduit along Sunflower Ave and South Coast Dr									
	For Bid and Award by City (see separate cost estimate)			49	1	49	-	'	es.	
	Total - 3" Conduit along Sunflower Ave and South Coast Dr						İ		69	•
16	Central System Improvements									
	Configuration of Intersections into the MIST System with Graphics	E	13	€9	600.00				63	7,800.00
	TMC Upgrade & Relocation for Bid and Award by City (see separate cost estimate)			€>	'		<u> </u>		€÷	
	Total - Central System Improvements								49	7,800.00
17	Single Mode Fiber Optic (SMFO) Installation (in new and existing conduit)									
	Remove existing copper and install 24SMFO Cable with tracer wire	5	16800		16	16800 LF @ \$2.40/LF	2.40/LF		67	40,320.00
	Install 24SMFO Cable with tracer wire (in new conduit)	5	4000		4(4000 LF @ \$2.11/LF	2.11/LF		69	8,440.00
<u></u>	Replace existing pull box with new #5 pull box and concrete	EA	10	4	1,090.00	\$	250.00 \$	20.00	49	13,600.00
	Total - SMFO Installation								4.0	62,360.00
					:	System Im	provemen	System Improvements Subtotal:	€	294,544.16
				Conting	jency (10%) including	Equipme	Contingency (10%) including Equipment Warranty:	\$	29,454.42
			-			System Ir	пргочеш	System Improvements Total:	₩.	323,998.58

EXHIBIT D PROJECT SCHEDULE

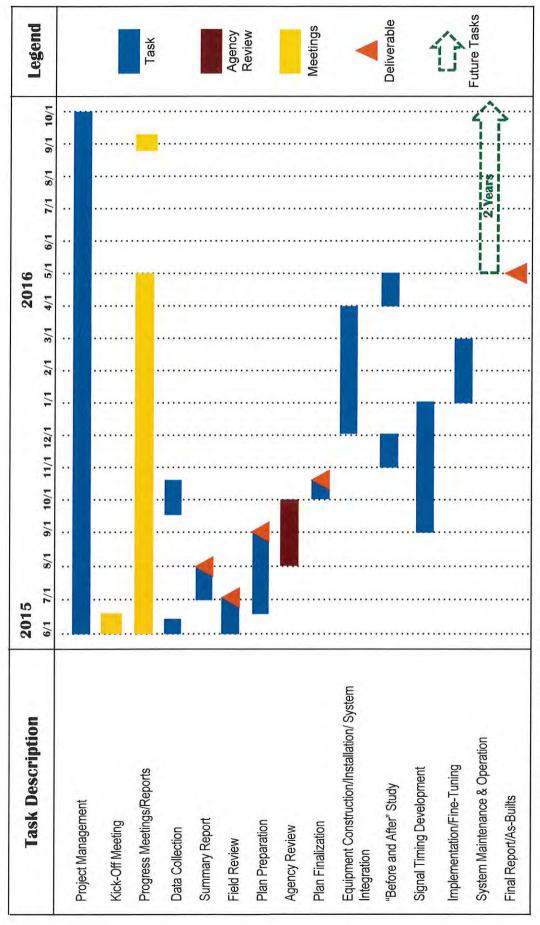


Figure 2: Costa Mesa Sunflower Avenue Corridor Turn-Key Project Schedule

EXHIBIT F CITY COUNCIL POLICY 100-5

SUBJECT	POLICY NUMBER	EFFECTIVE DATE	PAGE
DRUG-FREE WORKPLACE	100-5	8-8-89	1 of 3

BACKGROUND

Under the Federal Drug-Free Workplace Act of 1988, passed as part of omnibus drug legislation enacted November 18, 1988, contractors and grantees of Federal funds must certify that they will provide drug-free workplaces. At the present time, the City of Costa Mesa, as a sub-grantee of Federal funds under a variety of programs, is required to abide by this Act. The City Council has expressed its support of the national effort to eradicate drug abuse through the creation of a Substance Abuse Committee, institution of a City-wide D.A.R.E. program in all local schools and other activities in support of a drug-free community. This policy is intended to extend that effort to contractors and grantees of the City of Costa Mesa in the elimination of dangerous drugs in the workplace.

PURPOSE

It is the purpose of this Policy to:

- 1. Clearly state the City of Costa Mesa's commitment to a drug-free society.
- 2. Set forth guidelines to ensure that public, private, and nonprofit organizations receiving funds from the City of Costa Mesa share the commitment to a drug-free workplace.

POLICY

The City Manager, under direction by the City Council, shall take the necessary steps to see that the following provisions are included in all contracts and agreements entered into by the City of Costa Mesa involving the disbursement of funds.

- 1. Contractor or Sub-grantee hereby certifies that it will provide a drug-free workplace by:
 - a. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in Contractor's and/or sub-grantee's workplace, specifically the job site or location included in this contract, and specifying the actions that will be taken against the employees for violation of such prohibition;

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- b. Establishing a Drug-Free Awareness Program to inform employees about:
 - 1. The dangers of drug abuse in the workplace;
 - 2. Contractor's and/or sub-grantee's policy of maintaining a drug-free workplace;
 - 3. Any available drug counseling, rehabilitation and employee assistance programs; and
 - 4. The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- c. Making it a requirement that each employee to be engaged in the performance of the contract be given a copy of the statement required by subparagraph A;
- d. Notifying the employee in the statement required by subparagraph 1 A that, as a condition of employment under the contract, the employee will:
 - 1. Abide by the terms of the statement; and
 - 2. Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction;
- e. Notifying the City of Costa Mesa within ten (10) days after receiving notice under subparagraph 1 D 2 from an employee or otherwise receiving the actual notice of such conviction;
- f. Taking one of the following actions within thirty (30) days of receiving notice under subparagraph 1 D 2 with respect to an employee who is so convicted:
 - 1. Taking appropriate personnel action against such an employee, up to and including termination; or
 - 2. Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health agency, law enforcement, or other appropriate agency;

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- g. Making a good faith effort to maintain a drug-free workplace through implementation of subparagraphs 1 A through 1 F, inclusive.
- 2. Contractor and/or sub-grantee shall be deemed to be in violation of this Policy if the City of Costa Mesa determines that:
 - a. Contractor and/or sub-grantee has made a false certification under paragraph 1 above;
 - b. Contractor and/or sub-grantee has violated the certification by failing to carry out the requirements of subparagraphs 1 A through 1 G above;
 - c. Such number of employees of Contractor and/or sub-grantee have been convicted of violations of criminal drug statutes for violations occurring in the workplace as to indicate that the contractor and/or sub-grantee has failed to make a good faith effort to provide a drug-free workplace.
- 3. Should any contractor and/or sub-grantee be deemed to be in violation of this Policy pursuant to the provisions of 2 A, B, and C, a suspension, termination or debarment proceeding subject to applicable Federal, State, and local laws shall be conducted. Upon issuance of any final decision under this section requiring debarment of a contractor and/or sub-grantee, the contractor and/or sub-grantee shall be ineligible for award of any contract, agreement or grant from the City of Costa Mesa for a period specified in the decision, not to exceed five (5) years. Upon issuance of any final decision recommending against debarment of the contractor and/or sub-grantee, the contractor and/or sub-grantee shall be eligible for compensation as provided by law.