

AGREEMENT TO PROVIDE PAVEMENT MANAGEMENT PROGRAM UPDATE

THIS AGREEMENT is made and entered into on this 19th day of October, 2021 by and between Bucknam Infrastructure Group, Inc. (“Consultant”), and the City of Santa Ana, a charter city and municipal corporation organized and existing under the Constitution and laws of the State of California (“City”).

RECITALS

- A. On August 16, 2021 the City issued Request for Proposal No. 21-076, by which it sought a Consultant to provide Pavement Management Program Updates.
- B. Consultant submitted a responsive proposal that was selected by the City. Consultant represents that it is able and willing to provide the services described in the scope of work that was included in RFP No. 21-076.
- C. In undertaking the performance of this Agreement, Consultant represents that it is knowledgeable in its field and that any services performed by Consultant under this Agreement will be performed in compliance with such standards as may reasonably be expected from a professional consulting firm in the field.

NOW THEREFORE, in consideration of the mutual and respective promises, and subject to the terms and conditions hereinafter set forth, the parties agree as follows:

1. SCOPE OF SERVICES

Consultant shall perform the services described in the scope of work that was included in RFP No. 21-076, which is attached as **Exhibit A**, and as more specifically delineated in Consultant’s proposal, which is attached as **Exhibit B** and incorporated in full.

2. COMPENSATION

- a. City agrees to pay, and Consultant agrees to accept as total payment for its services for City, the rates and charges identified in **Exhibit C**. The total amount to be expended under this Agreement shall not exceed ninety-one thousand dollars and zero cents (\$91,000) during the term of this Agreement, including any extension periods. The sum is comprised of (1) the base amount of \$79,038 and (2) an approximate 15% contingency in the amount of \$11,962 for additional services at the City’s sole discretion.
- b. Payment by City shall be made within 45 days (forty-five) days following receipt of proper invoice evidencing work performed, subject to City accounting procedures. Payment need not be made for work which fails to meet the standards of performance set forth in the Recitals which may reasonably be expected by City.

3. TERM

This Agreement shall commence on the date first written above and terminate on October 18th, 2023, unless terminated earlier in accordance with Section 16, below. The term of this Agreement may

be extended for two 1-year periods upon a writing executed by the City Manager and City Attorney.

4. PREVAILING WAGES

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the services being performed are part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and the total compensation is \$1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its elected officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

5. INDEPENDENT CONTRACTOR

Consultant shall, during the entire term of this Agreement, be construed to be an independent contractor and not an employee of the City. This Agreement is not intended nor shall it be construed to create an employer-employee relationship, a joint venture relationship, or to allow the City to exercise discretion or control over the professional manner in which Consultant performs the services which are the subject matter of this Agreement; however, the services to be provided by Consultant shall be provided in a manner consistent with all applicable standards and regulations governing such services. Consultant shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes.

6. OWNERSHIP OF MATERIALS

This Agreement creates a non-exclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subcontractors to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subcontractor prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were provided to Consultant by the City. City shall not be limited in any way in its use of the Documents and Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

7. INSURANCE

Prior to undertaking performance of work under this Agreement, Consultant shall maintain and shall require its subcontractors, if any, to obtain and maintain insurance as described below:

- a. Minimum Scope and Limit of Insurance

1. **Commercial General Liability (CGL):** Insurance Services Office Form CG 00 01 covering CGL on an “occurrence” basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **\$1,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability:** ISO Form Number CA 00 01 covering any auto (Code 1), or if Consultant has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with a limit no less than **\$1,000,000** per accident for bodily injury and property damage.
3. **Workers’ Compensation:** as required by the State of California, with Statutory Limits, and Employer’s Liability Insurance with limit of no less than **\$1,000,000** per accident for bodily injury or disease.
4. If Consultant is or employs a licensed professional such as an architect or engineer: Professional liability (errors and omissions) insurance, with a combined single limit of not less than **\$2,000,000** per claim with \$2,000,000 in the aggregate.

If the Consultant maintains broader coverage and/or higher limits than the minimums shown above, the City requires and shall be entitled to the broader coverage and/or the higher limits maintained by the Consultant. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

b. Other Insurance Provisions

1. **Additional Insured Status:** The City, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Consultant’s insurance (at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of **both** CG 20 10, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 if a later edition is used).
2. **Primary Coverage:** For any claims related to this contract, the Consultant’s insurance coverage shall be primary coverage at least as broad as ISO CG 20 01 04 13 as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Consultant’s insurance and shall not contribute with it.

3. **Notice of Cancellation:** Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the City.
4. **Waiver of Subrogation:** Consultant hereby grants to City a waiver of any right to subrogation that any insurer of said Consultant may acquire against the City by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.
5. **Self-Insured Retentions:** Self-insured retentions must be declared to and approved by the City. The City may require the Consultant to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or City.
6. **Acceptability of Insurers:** Insurance is to be placed with insurers authorized to conduct business in the state with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the City.
7. **Claims Made Policies (applicable only to professional liability):**
 - i. The Retroactive Date must be shown, and must be before the date of the contract or the beginning of contract work.
 - ii. Insurance must be maintained and evidence of insurance must be provided *for at least five (5) years after completion of the contract of work.*
 - iii. If coverage is canceled or non-renewed, and not replaced *with another claims-made policy form with a Retroactive Date prior to* the contract effective date, the Consultant must purchase "extended reporting" coverage for a minimum of *five (5)* years after completion of work.
8. **Verification of Coverage:** Consultant shall furnish the City with original Certificates of Insurance including all required amendatory endorsements (or copies of the applicable policy language effecting coverage required by this clause) and a copy of the Declarations and Endorsement Page of the CGL policy listing all policy endorsements to City before work begins. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant's obligation to provide them.

The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

9. **Subcontractors:** Consultant shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Consultant shall ensure that City is an additional insured on insurance required from subcontractors.
10. **Special Risks or Circumstances:** City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

8. INDEMNIFICATION

Consultant agrees to defend, and shall indemnify and hold harmless the City, its officers, agents, employees, contractors, special counsel, and representatives from liability: (1) for personal injury, damages, just compensation, restitution, judicial or equitable relief arising out of claims for personal injury, including death, and claims for property damage, which may arise from the negligent operations of the Consultant, its subcontractors, agents, employees, or other persons acting on its behalf which relates to the services described in section 1 of this Agreement; and (2) from any claim that personal injury, damages, just compensation, restitution, judicial or equitable relief is due by reason of the terms of or effects arising from this Agreement. This indemnity and hold harmless agreement applies to all claims for damages, just compensation, restitution, judicial or equitable relief suffered, or alleged to have been suffered, by reason of the events referred to in this Section or by reason of the terms of, or effects, arising from this Agreement. The Consultant further agrees to indemnify, hold harmless, and pay all costs for the defense of the City, including fees and costs for special counsel to be selected by the City, regarding any action by a third party challenging the validity of this Agreement, or asserting that personal injury, damages, just compensation, restitution, judicial or equitable relief due to personal or property rights arises by reason of the terms of, or effects arising from this Agreement. City may make all reasonable decisions with respect to its representation in any legal proceeding. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

9. INTELLECTUAL PROPERTY INDEMNIFICATION

Consultant shall defend and indemnify the City, its officers, agents, representatives, and employees against any and all liability, including costs, for infringement of any United States' letters patent, trademark, or copyright infringement, including costs, contained in the work product or documents provided by Consultant to the City pursuant to this Agreement.

10. RECORDS

Consultant shall keep records and invoices in connection with the work to be performed under this Agreement. Consultant shall maintain complete and accurate records with respect to the costs incurred under this Agreement and any services, expenditures, and disbursements charged to the City for a

minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant under this Agreement. All such records and invoices shall be clearly identifiable. Consultant shall allow a representative of the City to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement during regular business hours. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement for a period of three (3) years from the date of final payment to Consultant under this Agreement.

11. CONFIDENTIALITY

If Consultant receives from the City information which due to the nature of such information is reasonably understood to be confidential and/or proprietary, Consultant agrees that it shall not use or disclose such information except in the performance of this Agreement, and further agrees to exercise the same degree of care it uses to protect its own information of like importance, but in no event less than reasonable care. "Confidential Information" shall include all nonpublic information. Confidential information includes not only written information, but also information transferred orally, visually, electronically, or by other means. Confidential information disclosed to either party by any subsidiary and/or agent of the other party is covered by this Agreement. The foregoing obligations of non-use and nondisclosure shall not apply to any information that (a) has been disclosed in publicly available sources; (b) is, through no fault of the Consultant disclosed in a publicly available source; (c) is in rightful possession of the Consultant without an obligation of confidentiality; (d) is required to be disclosed by operation of law; or (e) is independently developed by the Consultant without reference to information disclosed by the City.

12. CONFLICT OF INTEREST CLAUSE

Consultant covenants that it presently has no interests and shall not have interests, direct or indirect, which would conflict in any manner with performance of services specified under this Agreement.

13. NON-DISCRIMINATION

Consultant shall not discriminate because of race, color, creed, religion, sex, marital status, sexual orientation, gender identity, gender expression, gender, medical conditions, genetic information, or military and veteran status, age, national origin, ancestry, or disability, as defined and prohibited by applicable law, in the recruitment, selection, teaching, training, utilization, promotion, termination or other employment related activities or any services provided under this Agreement. Consultant affirms that it is an equal opportunity employer and shall comply with all applicable federal, state and local laws and regulations.

14. EXCLUSIVITY AND AMENDMENT

This Agreement represents the complete and exclusive statement between the City and Consultant, and supersedes any and all other agreements, oral or written, between the parties. In the event of a conflict between the terms of this Agreement and any attachments hereto, the terms of this Agreement shall prevail. This Agreement may not be modified except by written instrument signed by the City and by an authorized

representative of Consultant. The parties agree that any terms or conditions of any purchase order or other instrument that are inconsistent with, or in addition to, the terms and conditions hereof, shall not bind or obligate Consultant or the City. Each party to this Agreement acknowledges that no representations, inducements, promises or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which is not embodied herein.

15. ASSIGNMENT

Inasmuch as this Agreement is intended to secure the specialized services of Consultant, Consultant may not assign, transfer, delegate, or subcontract any interest herein without the prior written consent of the City and any such assignment, transfer, delegation or subcontract without the City's prior written consent shall be considered null and void. Nothing in this Agreement shall be construed to limit the City's ability to have any of the services which are the subject to this Agreement performed by City personnel or by other consultants retained by City.

16. TERMINATION

This Agreement may be terminated by the City upon thirty (30) days written notice of termination. In such event, Consultant shall be entitled to receive and the City shall pay Consultant compensation for all services performed by Consultant prior to receipt of such notice of termination, subject to the following conditions:

- a. As a condition of such payment, the Executive Director may require Consultant to deliver to the City all work product(s) completed as of such date, and in such case such work product shall be the property of the City unless prohibited by law, and Consultant consents to the City's use thereof for such purposes as the City deems appropriate.
- b. Payment need not be made for work which fails to meet the standard of performance specified in the Recitals of this Agreement.

17. WAIVER

No waiver of breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this Agreement shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure or right, or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

18. JURISDICTION - VENUE

This Agreement has been executed and delivered in the State of California and the validity, interpretation, performance, and enforcement of any of the clauses of this Agreement shall be determined and governed by the laws of the State of California. Both parties further agree that Orange County, California, shall be the venue for any action or proceeding that may be brought or arise out of, in connection with or by reason of this Agreement.

19. PROFESSIONAL LICENSES

Consultant shall, throughout the term of this Agreement, maintain all necessary licenses, permits, approvals, waivers, and exemptions necessary for the provision of the services hereunder and required by the laws and regulations of the United States, the State of California, the City of Santa Ana and all other governmental agencies. Consultant shall notify the City immediately and in writing of its inability to obtain or maintain such permits, licenses, approvals, waivers, and exemptions. Said inability shall be cause for termination of this Agreement.

20. MISCELLANEOUS PROVISIONS

- a. Each undersigned represents and warrants that its signature herein below has the power, authority and right to bind their respective parties to each of the terms of this Agreement, and shall indemnify City fully, including reasonable costs and attorney's fees, for any injuries or damages to City in the event that such authority or power is not, in fact, held by the signatory or is withdrawn.
- b. All Exhibits referenced herein and attached hereto shall be incorporated as if fully set forth in the body of this Agreement.

21. NOTICE

Any notice, tender, demand, delivery, or other communication pursuant to this Agreement shall be in writing and shall be deemed to be properly given if delivered in person or mailed by first class or certified mail, postage prepaid, or sent by fax or other telegraphic communication in the manner provided in this Section, to the following persons:

To City:

Clerk of the City Council
City of Santa Ana
20 Civic Center Plaza (M-30)
P.O. Box 1988
Santa Ana, CA 92702-1988
Fax: 714- 647-6956

With courtesy copies to:

Nabil Saba, PE
Executive Director, Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-21)
P.O. Box 1988
Santa Ana, California 92702
Fax: 714-647-5635

To Consultant:

Peter J Bucknam, PM
Bucknam Infrastructure Group, Inc.
3548 Seagate Way Suite 230
Oceanside, CA 92056
Office: 760-216-6529

A party may change its address by giving notice in writing to the other party. Thereafter, any communication shall be addressed and transmitted to the new address. If sent by mail, communication shall be effective or deemed to have been given three (3) days after it has been deposited in the United States mail, duly registered or certified, with postage prepaid, and addressed as set forth above. If sent by fax, communication shall be effective or deemed to have been given twenty-four (24) hours after the time set forth on the transmission report issued by the transmitting facsimile machine, addressed as set forth above. For purposes of calculating these time frames, weekends, federal, state, County or City holidays shall be excluded.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the date and year first above written.

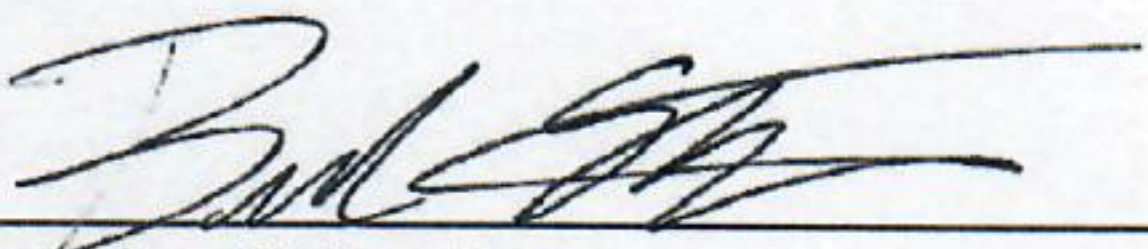
ATTEST:

CITY OF SANTA ANA


Daisy Gomez
Clerk of the Council

Kristine Ridge
City Manager

APPROVED AS TO FORM:
SONIA R. CARVALHO
City Attorney


Brandon Salvatierra
Deputy City Attorney

CONSULTANT:


PETER BUCKNAM
Name: _____
Title: PRESIDENT

RECOMMENDED FOR APPROVAL:

Nabil Saba, PE
Executive Director
Public Works Agency

EXHIBIT A

Scope/RFP 21-076

**Appendix
ATTACHMENT 1
SCOPE OF WORK**

**CITY OF SANTA ANA
REQUEST FOR PROPOSALS
FOR
PAVEMENT MANAGEMENT PROGRAM UPDATE
RFP NO. 21-076**

INTRODUCTION/BACKGROUND

The City of Santa Ana is seeking a qualified consultant to perform pavement condition surveys and budgetary analysis as part of the update to the City's Pavement Management Program (PMP). The PMP surveys and analysis shall comply with Orange County Transportation Authority (OCTA) guidelines.

The City's roadways consist of approximately 450 centerline miles of paved streets and alleys. The roadways are divided into three networks: Master Plan of Arterial Highways (MPAH), Local Street, and Alley. The MPAH Network contains approximately 105 centerline miles of Major Arterial, Primary Arterial, Secondary Arterial, and Collector streets with AC and PCC surfaces. The Local Street Network contains approximately 317 centerline miles of residential and nonresidential/ industrial streets with AC and PCC surfaces. The Alley Network contains approximately 28 centerline miles of alleys with AC and PCC surfaces. The database includes 4,417 street sections in all three networks and these sections were last surveyed in 2019. These data were input into StreetSaver software; therefore, all works for this scope of services shall utilize the latest version of StreetSaver software.

Description of Work:

The proposal should include the following tasks and fees and any additional tasks and fees deemed necessary by the Consultant shall be clearly identified in the proposal. Additionally, the City reserves the right to provide Notice To Proceed (NTP) for any, all or none of the following optional tasks:

Database

Task 1 - Management and Administration

The Consultant shall monitor project progress and maintain project files. Other responsibilities include supervising and reviewing the inspection process for conformance with OCTA guidelines. The Consultant shall meet with City staff to review schedule, budget, project documents, project goals, format of deliverables and clarify responsibility of each party.

Task 2 - Pavement Condition Surveys

Collect and record pavement distress data, as per ASTM D6433-11 and OCTA guidelines. The pavement distress data shall be collected using the walking survey method; windshield surveys will not be accepted in lieu of walking surveys.

Input pavement distress data into the City's database and calculate Pavement Condition Index (PCI) for each segment utilizing the latest version of StreetSaver software. The consultant shall keep a log of any discrepancies between the database information (i.e. surface type, etc.) and actual field conditions, and shall coordinate with City staff to correct the database as necessary. The Consultant shall provide the City with a list of street sections with a difference of more than 10 PCI values since the last inspection in 2019 and the explanation for such major changes. Corrections/changes to the database shall not be made without prior City staff approval.

Task 3 – Customize Database

To monitor the progress of various maintenance and rehabilitation (M&R) treatments, the database shall add a customized field tracking the details of treatment types (ie 2" AHRM over 3/8" ARAM, over 2" AC over native).

Additionally, the Consultant shall coordinate with StreetSaver developer to prepare a customized report to include the following fields (all of these fields are currently in the database but there is no single report output including all of them) in one single report:

- Local Street Preventative Maintenance's date
- Pavement treatment data in pavement section table
- Project number in M&R section
- Number of slabs (PCC streets only)

Furthermore, the City frequently prepares various reports for City Council. Therefore, the Consultant shall coordinate with StreetSaver developer to prepare up to five custom maps.

Task 4 - Budgetary Analysis

The City will provide the list of completed streets over the past two fiscal years to be updated in the database and the list of streets planned for repair over the next seven fiscal years for the budgetary analysis.

Forecast future PCI values for each segment and create OCTA-required budget scenarios for each network utilizing the latest version of StreetSaver software. The consultant shall coordinate with City staff to develop a 7-year maintenance & rehabilitation strategy (including but not limited to selecting segments, treatment type, costs, and year of implementation).

Task 5 - Final Report

The consultant shall prepare a final Pavement Management Program report and any other required submittal items, as per OCTA guidelines. The report shall include, without limitation, the methods, findings and recommendations of the consultant, which shall be presented in a single comprehensive document which, should include findings generated as part of other tasks described herein.

Task 6 - Database Update and GIS Map Integration (Optional Tasks)

There are approximately 30 or less segments of roadway to be added/deleted/combined from database (City will provide the list).

The Consultant shall integrate GIS mapping (ESRI) with StreetSaver database / Generate updated GIS sharp file.

General Requirements

- All work shall be performed in conformance with the City and OCTA's policies, procedures, and standards.
- The Consultant has total responsibility for the accuracy and completeness of all inspections performed and documents prepared. The documents furnished under the Agreement shall be of a quality acceptable to the City. The criteria for acceptance shall be a product of neat appearance, well organized, and technically and grammatically correct. The assumption of the number of review rounds is not allowed.
- The City has traditionally used paper distress forms but electronic data collection (using laptop/tablet computers) will be acceptable. The paper distress forms shall be submitted to the City for the City's records or the methodology for upload of electronic data collected shall be clearly defined and a method for data verification provided.

Project Deliverables

- Updated database in StreetSaver.
- Final PMP report; digital file on CD and 1 hard copy.

Project Schedule and Milestones

- | | |
|---|-------------------|
| • Kickoff Meeting & Notice To Proceed | October 12, 2021 |
| • Complete inspection & submit inspection data for review | February 18, 2022 |
| • Complete Budgetary Analysis | March 18, 2022 |
| • Submit Draft Pavement Management Report | April 15, 2022 |
| • Complete Final Pavement Report | May 6, 2022 |
| • City Council Approve PMP Report | June 7, 2022 |

Payment and Invoicing

Selected Consultant shall invoice the City based on time and material according to the City's standard invoice template. Tasks and hours shall be clearly identified and all rates must match those included in the approved agreement. City shall retain ten percent (10%) of the invoice amount from each payment until the completed Project has been accepted by the City.

EXHIBIT B

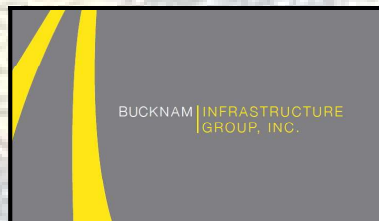
Scope/Bucknam Infrastructure Group, Inc., Proposal

PROPOSAL FOR PAVEMENT MANAGEMENT PROGRAM UPDATE 2021 (RFP #: 21-076)

City of Santa Ana, CA

August 11, 2021

Submitted by:



Bucknam Infrastructure Group, Inc.





Statement of Qualifications

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August 11, 2021

Mr. Kenny Nguyen
Public Works Agency
City of Santa Ana
20 Civic Center Plaza (M-36); 3rd Floor, Ross Annex
Santa Ana, CA 92701

Subject: Proposal for Pavement Management Program Update – 2021

Dear Kenny:

It is our pleasure to submit our proposal to the City of Santa Ana for the continuing, proactive management of your Pavement Management Plan (PMP). With the City seeking to continue the strong development and implementation of pavement management methodologies through advanced inspections, Capital Improvement reporting (CIP), OCTA compliance reporting and GIS enhancement, *Bucknam Infrastructure Group, Inc.* has identified a proactive and cost efficient method to assist the City in continued development of your pavement management program. Our team will focus our high-end pavement and right-of-way management knowledge, extensive Santa Ana - Orange County experience, StreetSaver and GIS/GPS technologies to optimize the City's capital and maintenance dollars by implementing manageable and reliable infrastructure methodologies.

Our PMP implementation services will be provided through cost-conscience pavement inspections, annual work history updates, additional CIP reporting, alternative budgetary reporting, GIS assessment/integration and general database management. Our firm is unique in that we provide:

- ❖ Relevant and accurate PMP services based on our ongoing work with the Orange County Transportation Authority (OCTA), Measure M2 compliance **(Bucknam is currently assisting sixteen (16) OC agencies comply with Measure M2)**

Additionally, Bucknam was selected by OCTA in July, 2021 to perform a county-wide PMP assessment for all 35 local agencies and perform a 10-yr budgetary model that identifies required revenues to sustain or achieve a PCI over 75

- ❖ OCTA Renewed Measure M compliant StreetSaver surveying, reporting and pavement analysis;
- ❖ Use of Bucknam-Fusco "Cloud-based Learning Technology" Artificial Intelligence (AI) to calculate, compare and qualify all AC/PCC asphalt SF's within the City of Santa Ana



- ❖ Local-Orange County knowledge and experience gained through our management of 80 local agency PMP's within Southern California. Over the past two years, **Mr. Peter Bucknam served as Project Manager for numerous Orange County PMP projects (i.e. Orange, Fullerton, San Clemente, La Palma, Brea, Irvine, Fountain Valley, Huntington Beach, Costa Mesa, Tustin, RSM, Laguna Beach, San Juan Capistrano, Laguna Hills, La Habra, and Westminster)** and he has personally managed over 500 PMP projects over the past twenty years
- ❖ Project/engineering experience that brings the understanding that StreetSaver results are not set in stone; we proactively use the available data to enhance budget forecasting, project planning and maintenance zone development
- ❖ Professional Engineering experience through our Principal, Mr. Steve Bucknam, P.E. who brings 40+ years of public/private local agency experience. Mr. Bucknam has served as City Engineer, Deputy City Manager, Design Engineer and Utilities Director for numerous public agencies

As Project Manager, my goal is not just to meet the requirements of this project but establish a living document (Arterial & Local pavement CIP / **Renewed Measure M2 submittal**) that will be used throughout the term of the CIP as well as implement achievable long-term infrastructure management goals in coordination with City schedules.

By selecting *Bucknam Infrastructure Group, Inc.*, the City of Santa Ana will continue to receive a strong, knowledgeable, innovative, and communicative team with the experience to implement a cost-effective infrastructure management program. Our handpicked pavement management professionals are committed to delivering quality services to the City.

Bucknam agrees with the Professional Services Agreement attached to this RFP (including the insurance requirements). This proposal is valid for ninety (90) days.

Respectfully submitted,

Bucknam Infrastructure Group, Inc.



Peter J. Bucknam
Project Manager / President

Firm and Team Experience



Firm Profile and Qualifications

With more than twenty years of managing change, *Bucknam Infrastructure Group, Inc.* is committed to building stronger relationships with government organizations through frequent communication and team building. We build long-term partnerships with agencies that expect and require accuracy, efficiency, and integrity in all aspects of community services. Our experienced staff is committed to ensuring that immediate and long-term goals are met and are a top priority in the development of pavement management, infrastructure management, financial, geographic information systems (GIS), and facility management projects.

Our full-service Infrastructure Management - GIS Division provides comprehensive engineering and infrastructure management services, as well as database management, pavement / ROW field inspection services, and GIS automation and management. Our staff consists of registered civil engineers; former Director of Public Works-City Engineers and maintenance specialists who can help implement solutions based upon your specific facility/infrastructure needs and will provide assistance through each step of your project.

Our extensive professional experience includes:

Public Works Management	Intranet GIS Implementation
ADA Self-Evaluation/Transition Planning	GIS Custom Applications
GASB 34 Compliance/Reporting	Water Resources Planning
Pavement-CIP Management (PMP)	City Engineering Services
Pavement Data Conversion	Federal & State Funding Assistance
Pavement Condition Surveys	Traffic Control Device / Sign Inventory
PMS/GIS Coordination	Infrastructure Grant Assistance
Public Right-of-Way Inventories	Maintenance Management Programs
PMP Compliance Reporting	Record Retention / Scanning Services
Digital Roadway Imaging / Survey	

Regarding Pavement Management Programs, our firm is currently assisting 35+ local agencies comply with the County pavement reporting requirements. In addition to the extensive knowledge and experience of our infrastructure management professionals, Bucknam provides a broad scope of administrative, inspection, construction management, civil engineering, and GIS services to public agencies. The extensive experience of Bucknam's staff, coupled with its service to more than 100 cities and other public agencies, assures our clients that the firm is a broad based resource with an understanding of today's infrastructure issues and knows how to provide the necessary solutions to public agencies in today's complex governmental environment.

We bring a wealth of experience to the City through our successful track record, pavement management knowledge through application, and relationship building through trust and adherence to schedule. We look forward to working with you on your project. Our handpicked management professionals are committed to delivering quality services to the City. **Our office is located in Oceanside, CA.**

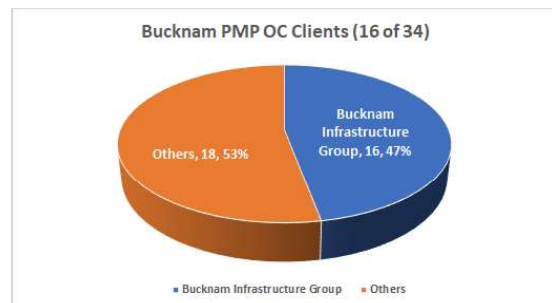


Delineation of Bucknam Infrastructure Group's Strengths

As Bucknam approaches twenty-two (22) years of pavement management experience, our firm is distinct and unique in the fact that we have continued to improve upon our long-term local agency client based throughout Orange County. Building and establishing long-term client relationships through PMP management is a clear delineation of our professional services.

Bucknam's experience and qualifications directly related to this project and other key delineation strengths include:

- Providing PMP services for 16 of the 34 **Orange County** local agencies in the past two years (47% of cities);
- Provided PMP services to Santa Ana for FY 2016 Update
- Providing PMP services to 25+ **Los Angeles County** local agencies in the past two years (30% of cities);
- Bucknam is currently working with OCTA (Mr. Harry Thomas) to assess ALL 35 Orange County agencies PMP databases to validate segmentation, inspections and preform a 10-yr budget analysis for each local agency;
 - The goal is to identify what level of funding each local agency needs to reach or remain above a weighted PCI of 75;
- Implementation of Bucknam-Fusco Cloud-based AI for AC/PCC square footage calculations;
- Staff / Firm is certified through OCTA and MTC for use and management of MicroPAVER/StreetSaver respectively
 - Bucknam is ASTM D6433-20 certified through OCTA until June, 2023 for PMP services to local agencies;
- Focused managers / field technicians that perform infrastructure management services at cost-competitive rates and deliver quality products;
- Local presence (Oceanside office) allows our firm to be on-site within an hour to respond Santa Ana requests and needs;
- Incorporation of Bucknam's MyRoads™ – PMP mapping (web-based access/use); requires no GIS software to view your PMP online (See Task 3.2 within Scope of Work);
- Proven Orange County PMP economic ROI regarding long-term Pavement CIP's recommendations, implementation, maintenance applications and increased PCI's;



Firm and Team Experience



Project Team – Key Staff

The *Bucknam* pavement management team's local agency expertise is demonstrated through:

- ❖ Our experience of managing pavement projects over the past seventeen years;
- ❖ **Assisting cities comply with OCTA Renewed Measure M2 through our experience of working with sixteen (16) of the OC cities regarding PMPs every two year;**
- ❖ Implementing StreetSaver through OCTA / METRO Project Management experience
- ❖ Extensive Orange, Los Angeles, San Diego, Ventura, and Inland Empire PMP project management experience;
- ❖ Our understanding of public works projects from the "city" side through City Engineer and Public Works Director experience;
- ❖ Implementing a realistic, proactive and repeatable PMP methodology that matches your agencies needs and goals.

Bucknam will continue to bring our extensive experience to the City of Santa Ana by building upon our knowledge and understanding of your PMP / GIS goals. Mr. Bucknam's pavement team includes nine (9) dedicated, qualified managers and field technicians that have served under his management for over seventeen years on PMP projects. His team of inspectors will update your PMP through sound Army Corps of Engineers - StreetSaver inspection methodologies. Mr. Bucknam's experience covers the management and implementation of infrastructure management programs that exceeds 58,850 miles of pavement for more than 70 cities and 500+ PMP projects.

Based on the scope of work related to this project, our team brings a tremendous amount of experience to the City of Santa Ana regarding field and in-house training for StreetSaver and innovative survey methodologies (i.e. Tablet-based windshield and/or automated digital roadway imaging). We bring a wealth of experience through projects, pavement application knowledge and relationship building through trust and adherence to schedule.

See Section 6 of our proposal for Bucknam Infrastructure Group, Inc. staff compliance and qualification regarding OCTA's PMP guidelines and compliancy.

Bucknam Team Experience

PETER BUCKNAM, Project Manager, has managed numerous pavement management projects over the past 20+ years in the Southern California region and will be the technical Project Manager for Santa Ana's PMP project. Within this time he has served as project manager for seventy agencies in the Southern California. Peter is committed to the project from the receipt of the notice-to-proceed through completion and furthermore he is a certified PMP software trainer on MicroPAVER/StreetSaver and performed numerous training sessions for local agencies. **He has performed over 50 training workshops covering software's such as MicroPAVER, StreetSaver and CarteGraph. Our niche team of PMP experts allows our Project Manager and staff to survey the network in eight (8) weeks and deliver the Final PMP Report prior to the City's deadline.**

Firm and Team Experience



He brings his expertise to cities through converting, implementing, updating, and enhancing pavement management programs; this covers 20+ years (11 with Bucknam Infrastructure Group, 5 with Bucknam & Associates and 5 with Berryman and Henigar).

Mr. Bucknam has spoken at numerous conferences pertaining to pavement practices, surveying, management and GIS integration as well as conducted numerous City Council pavement studies.

As the City moves into the “program management” phase for its pavement program, Mr. Bucknam brings his experience of working with individual cities for numerous years, where he has assisted cities from the onset (turn-key, data conversion) to high-end pavement management and GIS integration and County compliance. Our staff is proud of the numerous long-term, on-call PMP support contracts we continue to serve with local agencies (e.g. Lake Elsinore, Ontario, Fountain Valley, Huntington Beach and Rancho Santa Margarita, Fullerton and Laguna Hills).

Mr. Bucknam will bring new, fresh and proactive recommendations to this project (i.e. zone maintenance) and will identify realistic program management and fiscal goals to assist the City in its upcoming CIP. Our team brings proven conversion and survey methodologies that efficiently and accurately update all pavement data within the City’s PMP. The City will receive recommendations that are sound and achievable, rather than timid or unrealistic.

STEVE BUCKNAM, P.E., Principal-in-Charge, will be responsible for the overall performance of the project, day-to-day management and provide quality assurance review. Mr. Steve Bucknam is a licensed Civil Engineer (LIC #20903) and will oversee all tasks for this project. Mr. Bucknam is a former Deputy City Manager for Public Works and City Engineer of Norwalk, and City Engineer in Arcadia and Pacifica, California. He has over 45 years of professional experience and has managed street maintenance, reconstruction and improvement programs. He has developed and administered Street maintenance and improvement programs in those cities as well as the City of Newport Beach where he served as Design Division head.

He has extensive experience in capital program planning, pavement construction and budgeting for street improvement programs.

AARON SUTTON, Lead GIS Analyst, will oversee all GIS and PMP data migration prior and during the project. He drives all GIS creation, PMP mapping, editing and deliverables for the project and is our key staffer for the ArcGIS Online web-hosting services that we provide. Mr. Sutton has been involved with over 62 pavement management projects within San Bernardino, LA, San Diego and Orange counties.

SHAUN RUSSO, Lead Field Technician, will be the lead field surveyor for this project. His responsibilities will include surveying, quality control, and working with our management staff ensuring the updated PMP database is complete. He has been involved with over 85 pavement management projects and brings his wealth of PMP software, GIS and inspection experience to this project. **Shaun is a certified ASTM D6433-16 inspector.**

AARON COHODAS, Field Technician, will be a supportive field surveyor for this project. His responsibilities will include surveying, quality control, and working with our management staff ensuring the updated PMP database is complete.

Firm and Team Experience



He has been involved with over 35 pavement management projects and brings his wealth of PMP software, GIS and inspection experience to this project. **Aaron is a certified ASTM D6433-16 inspector.**

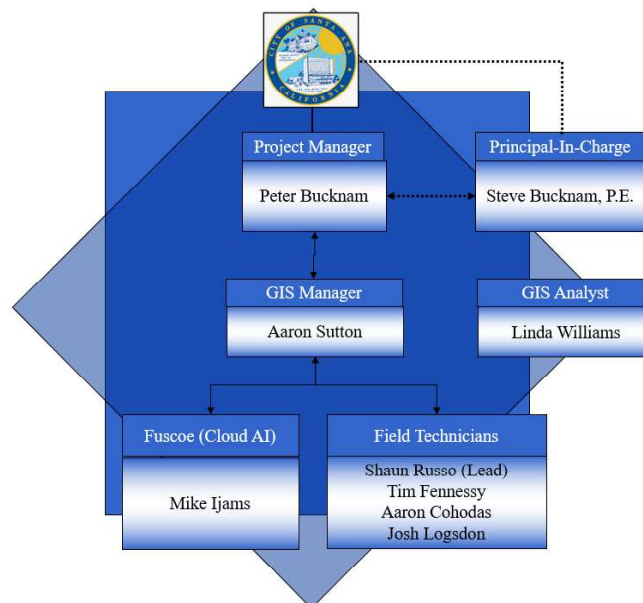
TIM FENNESSY, Field Technician, will be a supportive field surveyor for this project. His responsibilities will include surveying, quality control, and working with our management staff ensuring the updated PMP database is complete. Mr. Fennessy has been involved with over 41 pavement management projects and brings his wealth of PMP software, GIS and inspection experience to this project. **Tim is a certified ASTM D6433-16 inspector .**

With three technicians on this project that are trained in the Army Corps of Engineers survey methodology and available to begin work immediately; our survey schedule will be expedited.

Our team will be able to survey the entire 450 miles of pavement within eight (8) weeks' time due to our familiarity with the Santa Ana PMP network, experience, availability and manpower.

In case of heavy rain that can potentially delay scheduled street inspections, our team includes two (2) additional certified PMP inspectors that can be added to our Field Technician team above, if necessary.

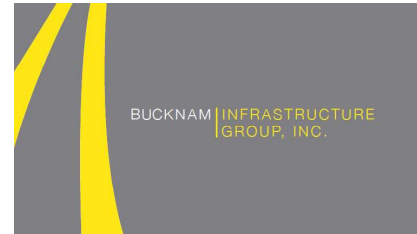
Team Organization Chart



Availability of Staff:

- Project Manager (65%)
- Principal-In-Charge (100%)
- GIS Analyst (75%)
- Field Technician(s) (85%)

Peter J. Bucknam / Project Manager
Director of Infrastructure Management – GIS



EDUCATION

B.A., Geography – Urban Planning, San Diego State University, 1997

PROFESSIONAL DATA

Member, American Public Works Association

Member, Maintenance Superintendents Association

Chair, Transportation Committee, Inland Empire Report Card (ASCE) – 2005/06 & 2008/09

Co-Chair, Member APWA Committee for Street and Technology 2003-2015

Certificate of Professional Development – ASTM D6433-18; MicroPAVER

Certificate of Completion – OCTA MicroPAVER / StreetSaver Distress Training (2011 thru 2022)

NASSCO – Certificate, National Pipeline Assessment Certification Program (PACP)

QUALIFICATIONS / EXPERIENCE OVERVIEW

Peter Bucknam is an expert in infrastructure project management, pavement management-training, planning, resource management, implementation and program management. He has over twenty years' experience in the area of Geographic Information Systems and infrastructure asset management. Mr. Bucknam has managed a wide range of infrastructure project tasks including the collection and input of infrastructure survey data, preparation of Public Works capital improvement program projections and reports, infrastructure/software needs assessments, GIS/GPS data collection, data conversion and quality control.

Mr. Bucknam has performed infrastructure management services to over 70+ local agencies and is currently serving as project manager for numerous pavement management programs throughout Southern California. He has personally served as project manager for 300+ PMP projects throughout Riverside, San Bernardino, San Diego, Orange and Los Angeles counties. He has worked with over 10, Inland Empire County cities, 25 Los Angeles cities and he is currently working with 15 of the 34 Orange County agencies regarding Measure M2 MicroPAVER/StreetSaver compliance.

His project level and management experience covers: pavement/sidewalk management, Traffic Control Device Inventories (TCDI), GIS implementation, Traffic Signal surveys, Right-of-Way (ROW) surveys, and ADA survey/compliance. In managing over 200 infrastructure projects in the past sixteen years, Mr. Bucknam has used a diverse amount of software to assist local agencies implement infrastructure management programs and GASB 34. These programs include MicroPAVER, MTC StreetSaver, LambdaTech's GPSVision, CartéGraph, ESRI products, Crossroads, Lucity, Energov, Spillman, GBA Master Series, and MapInfo.

Prior to joining *Bucknam Infrastructure Group, Inc.*, Mr. Bucknam served as Director of Infrastructure Management-GIS with an Engineering consulting firm where he managed numerous public works infrastructure/ROW projects ranging from surveying, maintenance life-cycles, cost & benefit analysis, financing and construction cost estimating. This included researching, surveying, converting and implementing multiple phase pavement management projects which provided better management practices, data efficiencies and GIS functionality within local governments and maintenance facilities. In addition, he provided technical (software) support for the on-going citywide PMS projects as well as developing capital improvement plans/budgets for integrating Tablet-GIS data management functionality into future maintenance efforts.

SAMPLE OF PETER BUCKNAM’S PROJECT MANAGEMENT EXPERIENCE (1997-2021)

- 2021 OCTA Pavement Management Plan (10 Year Study – OCTA)
- 2021 Pavement Management Program, City of Lake Elsinore
- 2021 Pavement Management Program, City of Bellflower
- 2021 Pavement Management Program, City of Indian Wells
- 2021 Pavement Management Program, City of Solana Beach
- 2021 Pavement Management Program, City of Barstow
- 2021 Sign Inventory Program, City of Norwalk
- 2021 Pavement Management Program, City of San Juan Capistrano
- 2021 Pavement Management Program, City of La Habra
- 2021 Pavement Management Program, City of Gardena
- 2021 Pavement Management Program, City of Menifee
- 2021 Pavement Management Program, City of Duarte
- 2020 Pavement Management Program, City of Pomona
- 2020 Pavement Management Program, City of Covina
- 2020 Pavement Management Program, City of Redlands
- 2020 Pavement Management Program, City of Lomita
- 2020 Sign / Pavement Management Programs, City of National City
- 2020 Sign / Pavement Management Programs, City of Murrieta
- 2020 Pavement Management Program, City of Brea
- 2020 Pavement Management Program, City of Tustin
- 2020 Pavement Management Program, City of Compton
- 2020 Pavement Management Program, La Cresta HOA, Temecula
- 2020 Pavement Management Program, City of Glendora
- 2020 Pavement Management Program, City of La Palma
- 2020 Pavement Management Program, City of Laguna Beach
- 2020 Pavement Management Program, City of Sierra Madre
- 2020 Sidewalk / Pavement Management Programs, City of Lynwood
- 2020 Pavement Management Program, City of Alhambra
- 2020 Pavement Management Program, Inland Empire Utilities Agency
- 2020-25 Pavement Management Program, City of Orange
- 2020-23 Pavement Management Program, City of Fullerton
- 2020-25 Pavement Management Program, City of Ontario
- 2020 Pavement Management Program, City of Huntington Beach
- 2020 Pavement Management Program, City of La Verne
- 2020 Pavement Management Program, City of Monrovia
- 2020 Pavement Management Program, City of Norwalk
- 2020 Sign Inventory Program, City of Aliso Viejo
- 2020 Pavement Management Program, City of South Pasadena
- 2020 Pavement Management Program, City of Westminster
- 2019 Pavement Management Program, City of Rialto
- 2019 Pavement Management Program, City of Palmdale
- 2019 Pavement Management Program, City of El Segundo
- 2019 Citywide GIS Operation & Maint. Services, City of Duarte
- 2019 Citywide GIS Operation & Maint. Services, City of Paso Robles
- 2019 Pavement Management Program, City of Fountain Valley

C. Stephen Bucknam, Jr., P.E., Principal-in-Charge

EDUCATION

B.S., Civil Engineering, Loyola University of Los Angeles, 1967

M.S., Environmental Engineering, Loyola University of Los Angeles, 1972



PROFESSIONAL DATA

Registered Professional Engineer, States of California (No.20903) and Washington (No.17310)

California State Community College Teaching Credential

Fellow, American Society of Civil Engineers

Former, City Engineer, Deputy City Manager, City of Norwalk

Member, Board of Directors – Urban Water Institute

Life Member, American Public Works Association

Member, Water Environment Foundation

Member, University of California Irvine, Civil & Environmental Engineering Affiliates

Honorary Member, Chi Epsilon

EXPERIENCE OVERVIEW

Over forty years' experience in the administration, management, planning, design and construction management of public works and development programs and projects including: water and wastewater projects, pavement management programs, transportation, drainage, including: program management, master planning, infrastructure planning and maintenance programming, environmental studies, street, highway, alley, storm drain, water and sewer system design, rate studies, emergency planning, facilities design, groundwater studies, wells, reservoirs, site studies, pump stations, lift stations, intergovernmental negotiations and agreements, hydrology, treatment facilities, building design, grants, regulatory permitting, system appraisals, R/W negotiations, acquisitions and documentation, project management, production control, operations studies, capital improvement programming and budgeting, hydroelectric projects, underground utilities, assessment districts, surveying, mapping, legal testimony to public boards, commissions and councils, and direction of technical advisory committees to joint powers agencies and water districts.

Transportation / Streets – Highways - Traffic

Served as Contract City Engineer for the City of Arcadia responsible for long range advanced planning of the City's transportation engineering program. Directed the preparation of the City's Transportation Master Plan which identified, consistent with the City's General Plan the transportation related needs under these requirements so of AB 1600 nexus constraints.

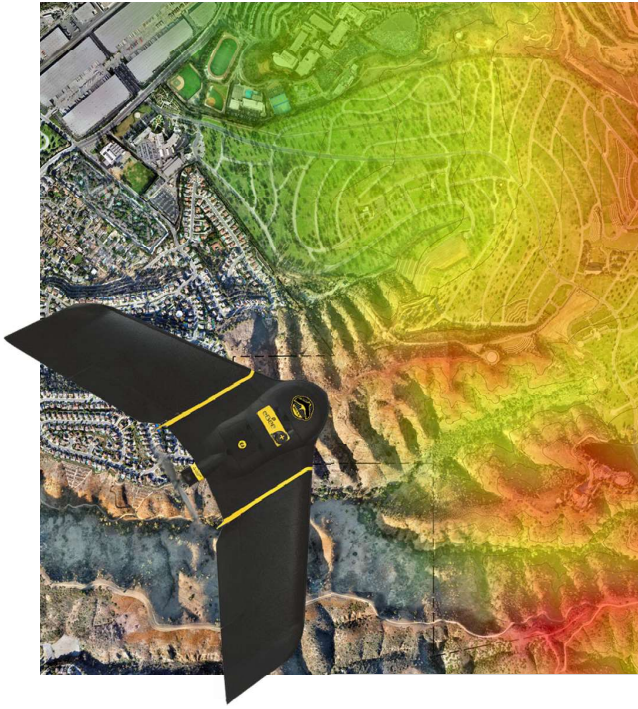
Acted as Principal in charge over a Pacific Coast Highway (SR-1)/Newport Boulevard (SR-55) interchange, City of Newport Beach. Project involves a study of various alternatives, conventional and unconventional, for improvements to the existing interchange.

Restraints include limited right-of-way, environmental challenges (e.g., Newport channel bridge widening, "Arches" liquor store and restaurant property acquisition, and existing bridge aesthetics), and potential hazardous waste issues. Alternatives were evaluated and selected to include in the PSR. Included project coordination with various agencies and sub consultants, and oversight of concept geometries, cost estimating, and report preparation.

Conceptual study, Project Study Report, and Project Report for I-710/Firestone Boulevard interchange modification and Firestone Boulevard improvements for City of South Gate. Also involved a feasibility study which included preparation of a traffic study, conceptual plans for several types of interchanges, construction cost estimates, and preliminary Caltrans Project Study Report. Prepared ISTE National Highway System funding application for authorization and appropriation. Coordination with Caltrans District 7.

Mr. Bucknam has served as the working Principal / Civil Engineer for all pavement management related projects that Bucknam has performed. This includes projects listed below:

- 2021 OCTA Pavement Management Plan (10 Year Study – OCTA)
- 2021 Pavement Management Program, City of Lake Elsinore
- 2021 Pavement Management Program, City of Bellflower
- 2021 Pavement Management Program, City of Indian Wells
- 2021 Pavement Management Program, City of Solana Beach
- 2021 Pavement Management Program, City of Barstow
- 2021 Sign Inventory Program, City of Norwalk
- 2021 Pavement Management Program, City of San Juan Capistrano
- 2021 Pavement Management Program, City of La Habra
- 2020 Pavement Management Program, City of Gardena
- 2020 Pavement Management Program, City of Menifee
- 2020 Pavement Management Program, City of Duarte
- 2020 Pavement Management Program, City of Lomita
- 2020 Sign / Pavement Management Programs, City of National City
- 2020 Sign / Pavement Management Programs, City of Murrieta
- 2020 Pavement Management Program, City of Brea
- 2020 Pavement Management Program, City of Tustin
- 2020 Pavement Management Program, City of Compton
- 2020 Pavement Management Program, La Cresta HOA, Temecula
- 2020 Pavement Management Program, City of Glendora
- 2020 Pavement Management Program, City of La Palma
- 2020 Pavement Management Program, City of Laguna Beach
- 2020 Pavement Management Program, City of Sierra Madre
- 2020 Sidewalk / Pavement Management Programs, City of Lynwood
- 2020 Pavement Management Program, City of Alhambra
- 2020 Pavement Management Program, City of Orange
- 2020 Pavement Management Program, City of Fullerton
- 2020 Pavement Management Program, City of Ontario
- 2020 Pavement Management Program, City of Huntington Beach
- 2020 Pavement Management Program, City of La Verne
- 2020 Pavement Management Program, Inland Empire Utilities Agency
- 2020 Pavement Management Program, City of Monrovia
- 2020 Pavement Management Program, City of Norwalk
- 2020 Sign Inventory Program, City of Aliso Viejo
- 2020 Pavement Management Program, City of South Pasadena
- 2020 Pavement Management Program, City of Westminster
- 2019 Pavement Management Program, City of Rialto
- 2019 Pavement Management Program, City of Palmdale



EDUCATION

- ▶ BA, Geography
California State University Fullerton

REGISTRATIONS/CERTIFICATIONS

- ▶ GIS Instructor, Santiago Canyon College
- ▶ GIS Advisor, USGBC LEED Regionalization, Pacific Chapter
- ▶ FAA Remote Pilot - sUAS
- ▶ FAA Section 333 UAV Exemption
- ▶ FAA Sport Pilot License (pending)

AFFILIATIONS

- ▶ Association for Unmanned Vehicle Systems International (AUVSI)

PATENTS

- ▶ US Patent No. US 10,297,074 B2
Three-Dimensional Modeling from Optical Capture

FEI TEAM MEMBER SINCE 2004

MIKE IJAMS

TITLE Geospatial Technology Manager | OFFICE Irvine, CA

Mike brings a unique cross section of skills, expertise and innovation as the leader of Fuscoe's GIS & Technology team, which provides specialized services that enhance and complement Fuscoe's civil engineering work. An avid aviator, Mike spearheaded Fuscoe's UAV drone program which captures aerial imagery and processes it into 3D point cloud and topographic surveys. In addition to drone services, Mike's main specialties are Geographic Information Systems and 3D visualization. He uses both to facilitate communication between designers, clients and the public, and to clarify design intent, resulting in streamlined project approval. Mike's relevant project work includes:

- **Rancho Guejito Aerial Tree Survey** - UAV aerial tree survey of 23,000 acres in San Diego County. Artificial Intelligence is being used to assess, count and sort trees and classify special vegetation.
- **City of Lake Forest Street Pavement Assessment** - Fuscoe provided image capture and processing of arterial streets in Lake Forest. Artificial intelligence was used to analyze and identify street pavement conditions. This technology helped the City to prioritize and plan annual street maintenance.
- **Fairmont Miramar Hotel Revitalization, Engineering & Tree Survey** - Fuscoe provided civil engineering, UAV tree/inventory survey, topographic and site surveys, GIS documentation and EIR support. FEI provided UAV 3D Point Cloud imagery of trees, gardens, pools, buildings and surrounding neighborhood.
- **Rancho Mission Viejo PA3 Cow Camp Road Aerial Survey** - Fuscoe provided UAV aerial surveys to help visualize Planning Area 3, the newest ranch-oriented community.
- **Newland Sierra 3D Model & View Simulation** - Fuscoe provided a 3D model and view simulation video of the proposed residential master planned community to help build community consensus.

Additionally, Mike has applied our technology services to numerous projects including, Villas at Fashion Island (monitor and document monthly progress of apartment construction in Newport Center in ultra-high definition 4K video); ARDA Veteran's Cemetery Site Feasibility (video simulation); St. Mary's College Campus Master Plan (topographic survey and aerial imagery), among others. He also established a web-based GIS and file system for the City of Yorba Linda following the Freeway Fire and mudslides.

Mike was instrumental in obtaining Fuscoe's 2019 technology patent. Fuscoe patented its exclusive Three-Dimensional Modeling from Optical Capture. He also served as a Santiago Canyon College instructor, where he taught an Introduction to GIS as part of the College's Survey and Mapping Sciences curriculum.

full circle thinking®

Understanding of Need / Scope of Work



Project Understanding / Approach

We have defined detailed phases to the scope of work in accordance to the City's RFP;

1. Management and Administration
 - a. Project Status Meetings – Quality Control Program
 - b. Client Satisfaction / Project Deliverables
 2. Pavement Condition Surveys
 3. Budget Analysis
 4. Final Report (Internal City CIP / OCTA Compliance Reporting)
-

1) Project Implementation (MPAH Network)

TASK 1.1: Database Update

Bucknam will review all available City Circulation Element and OCTA Master Plan of Arterial Highways (MPAH) functional classifications to ensure that all sections within the StreetSaver database are consistent with the City Circulation Element & OCTA MPAH designations.

Deliverable: Citywide street classification verification report and GIS map

TASK 2.1: Management and Administration

Building upon our previous successful Santa Ana PMP projects, Bucknam will implement the key first step of an effective pavement management program; frequent communication and timely scheduled data updates. Our team will set a Project Kickoff meeting to further discuss and review in detail the expectations of the project, StreetSaver use and status, technical approach, boundary section verification, section ID management & surveys, Orange County Transportation Authority (OCTA) compliance, finalization of the scope of work, review of schedule, format of deliverables and clarification responsibility of each party.

This effort will build consensus between the Street Maintenance and Engineering departments as well as build stronger ARTERIAL and LOCAL maintenance programs. The first key topics to be discussed will include the review and assessment of the existing StreetSaver pavement plan/data, OCTA compliance, and survey areas based on recent maintenance work and schedules, new construction, data quality and condition, current pavement procedures, historical expenditure levels, and desired service levels.

Project Status Meetings - Quality Control Program

Status Meetings and Progress Reports

- Minimum of three meetings during the project (kickoff, field, and status meetings) – minimum of eight (8) hours;
- Field review meetings;

Understanding of Need / Scope of Work



- Monthly progress status reports will be delivered to City project manager.

Quality Control (QC)

We will use a statistical sampling approach for measuring the quality of our field technician's work.

In this manner, 10 percent of the original 450 miles of surveys will be re-surveyed by an independent survey crew, supervised by a field supervisor, and the results will be compared to the original surveys (this will include 45 mi. of arterial/local/alley QC). Our QC process involves checking the field crews' work in a "blind study" fashion. Quality control checks will be performed at the end of each survey week. This will ensure that all field personnel are properly collecting distresses and pavement quantities for all street segments.

PCI variance reporting will be performed where previous PCI 2019 data will be compared to newly inspected 2021 PCI data; if PCI's vary more than ten (10) points per year Bucknam staff will assess the potential cause through unrecorded work history, accelerated pavement deterioration, etc. Bucknam will record/log any discrepancies between the previous and current PMP databases (any corrections/changes to the database shall not be made without prior City staff approval).

Since we are collecting distress information on our field Tablets with the Santa Ana MicroPAVER database live, our staff will perform several quality control tests within the pavement management software using a sample set of the City of Santa Ana's street distress data. This will ensure that all system and analysis settings as well as City recommendations and standards are being followed.

All general draft and final reporting will follow the OCTA "Countywide Pavement Management Program, Guidelines Manual. **Over the past two years, Bucknam has submitted seventeen (17) OCTA Measure M2 compliant reports for OC municipalities, they include:**

Orange County PMP Clients		
Brea	Irvine	RSM
Costa Mesa	Aliso Viejo	Tustin
Laguna Hills	Laguna Beach	Westminster
Fountain Valley	San Juan Capistrano	La Habra
Huntington Beach	San Clemente	Fullerton
La Palma	Orange	

Every year our staff has attended the OCTA MicroPAVER Distress Training Classes held from 2011 thru 2021.

In February 2021 our staff was acknowledged as "qualified inspectors and firm" to prepare Pavement Management Plans compliant with the OCTA Countywide Pavement Management Guidelines (this compliance runs through June 2023; see documentation at the end of our scope of work).

Deliverable: Monthly Project Status reports, field review and project status meetings, OCTA QA/QC Plan

Understanding of Need / Scope of Work



Client Satisfaction / Project Deliverables

Shown throughout our Scope of Work, each Task is summarized with project deliverables. Client satisfaction will derive from frequent communication with the Project Manager and key staff members from the Engineering and Street Maintenance departments. Project success is created by delivering on three main factors;

- 1) Adherence to scope tasks and deliverables
- 2) Performing to the standard set by the Project Schedule; and
- 3) Controlling costs. Our Project Manager will follow each of these factors throughout the duration of the project

Deliverable: Project Status Updates, as stated in Task 2.1

TASK 2.2: Conduct Pavement Condition Survey

Once the pavement segmentation has been assessed and verified, the inspection of approximately 450 MPAH & Local centerline miles will be performed per ASTM D6433 and OCTA guidelines.

1. **Walking** - All sections are surveyed through “two-pass test” walking methodologies. AC/PCC distress types will be collected based upon actual surface conditions and physical characteristics of the segment. Surveying methods will be conducted by remaining consistent with ASTM D6433 & the Army Corp of Engineers AC/PCC sampling guidelines while being flexible to current City requirements.

All sample locations are observed through walking surveys; samples areas will cover a minimum of 20% of the total section area and will be 2,500 SF +/- 1,000 SF in size. According to the City’s RFP the following pavement sections are to be surveyed for the upcoming 2021 PMP update:

MPAH – 105 MPAH network centerline miles (2021-22 survey)

- Survey will exclude private streets, Orange County unincorporated areas and State Highways
- Recently overlay maintenance will reduce the amount of necessary survey, Bucknam will coordinate mileage and cost reduction with City prior to survey
- Based on the City’s RFP project Introduction and Task 2 description all segments within the three (3) networks were surveyed in 2019; according OCTA guidelines only the City’s MPAH routes need to be surveyed during FY 2021 – if the City elects to survey MPAH, Local and Alley routes, Bucknam included those efforts within our proposed fee;
- **If City requests a full network-wide survey we have included these cost efforts within our Fee Proposal (450 miles)**

Understanding of Need / Scope of Work



Distress types will be collected based upon actual surface conditions and physical characteristics of the segment. Surveying methods will be conducted by remaining consistent with StreetSaver & the Army Corp of Engineers sampling guidelines while being flexible to current City practices.

We will use the City's GIS centerline live in the field to reduce survey times and project schedules. If the City has a recent high-resolution aerial (approx. 3") we will use this file during our field survey efforts to verify street measurements and other segment attributes.

For all surveys, the use of our StreetSaver PMP-Tablet units allows our staff to collect pavement data with the City of Santa Ana's StreetSaver database live in the field. Due to StreetSaver being a cloud-based PMP we will be assessing our field crew's work daily/weekly at our office to ensure quality control and management.

Our MobileRater Tablet methodology sets us apart from the competition since we are using a paper-less inventory process to enter data; we are also using the City's street GIS layer live on our Tablets to expedite our surveys and GIS editing.

A screenshot of the StreetSaver software interface. The window title is "Create Inspection Units". It shows a form for entering inspection data for "ADELE STREET - ADELE". The form includes fields for Street ID (ADELE), Section ID (10), Begin Loc (LAKE ST.), End Loc (OAK ST.), Road (ADELE STREET - ADELE), Length (ft) (686.00), Area (sq ft) (17836.00), Surface Type (A - AC), Width (ft) (26.00), and # of Lanes (2). There is a table for "Inspection Data" with columns for Date, Insp. #, Length, Area, and Special? The table shows one entry for 09/11/2014, Insp. # 2, Length 100, Area 2600. Below the table is a "Comments" field. At the bottom, there is a table for "Distress Data" with columns for Type, Severity, and Qty. The table shows three entries: 02 - Bleeding (L - Low, 550), 05 - Corrugation (L - Low, 225), and 01 - Alligator Cracking (M - Medium, 1480). The bottom of the window has buttons for Clear, Delete, Save, Save & New, Save & Close, and Close.

Roadway Verification Survey - A listing of the field attribute data that is updated/verified during the survey for the pavement management database is listed below. Bucknam will obtain measurements of each streets width, length and surface classification and compare it to existing StreetSaver data. Discrepancies in the data will be tabulated and reviewed by Bucknam and the City prior to any update within StreetSaver.

1. Field Attribute Data (updated and/or verified)

- From/to, indicating the assigned limits of the section, sample test areas, street name, a street codification (arranged west to east and south to north)
- Street ranking indicating local, alley, arterial, collector, # of lanes, surface type
- Historical PCI tracking from previous inspections and 2021 PCI inspections
- Segment quantities, indicating the length, width, and total true area of the section
- Pavement distresses compliant with StreetSaver – OCTA guidelines (i.e. alligator cracking, block cracking, rutting, long/trans cracking, weathering, etc.
- Provide City with "discrepancy report" indicating variances between field data collection and previous PMP database

2. Conditional data will be evaluated for all street segments and will include:

- StreetSaver 20 AC & 19 PCC distresses by type, severity and sample area
- PCI ratings (0-100); per segment, per grid zone, per maintenance zone and citywide
- Corrections / changes to the database shall not be made w/o prior City approval

Understanding of Need / Scope of Work



We welcome staff members from the City of Santa Ana to join our surveys. All pavement data will be entered into the City's current StreetSaver licensed software. All items listed above will be maintained by our staff for the duration of this project.

Data management will be performed in-house at our Oceanside office. At the completion of the project, the StreetSaver database will be verified and Bucknam will ensure that it is accessible within the City's information services/communication network.

3. Section Distress and PCI Reporting

Once inspections are completed, we will generate a draft Pavement Condition Index (PCI) Report for City staff to review.

PCI reports will include the necessary data listed within the Countywide Pavement Management Program, Guidelines Manual; Chapter 3 (Agency Submittals).

At a minimum, the Santa Ana Pavement Condition Index (PCI) Report will include:

- Present condition index per segment, per rank, per maintenance zone and citywide
- Present condition of segments and future performance for the next seven years based on performance prediction modeling and local conditions
- Identify the form, condition and causes of pavement failure (if possible)

Deliverable: Citywide draft PCI report, Pavement segment data required within Chapter 3 PMP Guideline Manual (OCTA)

TASK 2.3: Customize Database and Maps

The City has requested that customized maintenance & rehabilitation (M&R) treatments be added to StreetSaver in order to track M&R progress (i.e. 2" ARHM over 3/8 ARAM, over 2" AC over native). Bucknam will add this tracking field to the Decision Tree and Work tracking tools within StreetSaver. Additionally, Bucknam will work with StreetSaver development staff (Mr. Dave Baker and other key Devmecca staff) to coordinate the preparation of a Santa Ana Custom Report that will include the following data fields:

Santa Ana StreetSaver Custom Report Attributes	
Street / Section ID	Facility Functional Classification
Street Name	Neighborhood data
Limits (Beg. Location and End Location)	PCI
Measurement (L, W, SF)	Surface Type (AC, PCC, AC/PCC)
Number of Lanes	Last Construction Date
Slab Width (assoc. with PCC streets)	Latest treatment type (assoc. w/last const. date)
Number of Slabs (PCC streets only)	

Furthermore, the City has requested that for the preparation of up to five custom maps for presentation to upper management/City Council; Bucknam will coordinate with Devmecca and StreetSaver support staff to publish the draft and final map products.

Understanding of Need / Scope of Work



TASK 2.4: Budgetary Analysis

Bucknam will review all city provided maintenance projects that have been completed since the last major PMP update (i.e. June 2019) as well as a listing of “scheduled” for M&R over the next seven years. These records will be assessed and entered into StreetSaver. Our staff will generate an updated work history report for City review and compliance.

We will assist the City in developing the most cost-effective preventative maintenance, rehabilitation and R&R strategies possible. This will be accomplished by meeting with the City to discuss and strategize maintenance activities that are currently being used by the City. Based on the City’s current AC & PCC applications and other M&R practices used we will conduct an historical and prospective analysis on the conditional and financial impact these current practices have on the pavement network. Based on our fiscal and deterioration analysis, we will present our results and recommendations to City staff. This analysis will become an essential building block for the 2022-2029 fiscal year maintenance programs.

We will establish/update a M&R “decision tree” that will be used to generate pavement recommendations that match current 2021 practices. This will be accomplished by assessing/updating the unique and individual deterioration curves within StreetSaver based on functional class (i.e. arterial, collector, local), ride quality, traffic volumes and age.

Our staff will review the Santa Ana’s deterioration curves that have been developed based on historical pavement condition, inspection, surface type, StreetSaver deterioration, and road class.

The curves will be modified based on 2021 pavement conditions. The strategies that are typically reviewed are rehabilitation and reconstruction (R&R), localized maintenance, slurry seals, and various overlay types, the expected improvement in pavement condition, the life-cycle extension that would result and the unit costs for maintenance.

All maintenance practices/unit costs will be integrated into StreetSaver and will be derived from the most recent construction bids for pavement rehabilitation. We will account for inflation rates when long-term revenues projections are made.

Our staff will also update the City’s residential maintenance zone approach. We will focus on projecting budgets and maintenance recommendations for all streets within maintenance zones; this will allow us to proactively schedule maintenance efforts throughout the multi-year CIP as well as achieve the desired level of PCI across the City.

Our Project Manager and Principal will work closely with City in defining repair and rehabilitation strategies during each fiscal year (i.e. 2022-2029). Once the repair/rehabilitation strategies have been defined, the identification of a seven year Forecasted Maintenance schedule will be generated. The recommended budget scenarios will be identified on the basis of several criteria:

- Assessment and review of the City’s Pavement CIP;
- Present pavement conditions; Desired levels of service and available resources;
- Cost benefit of individual strategies (e.g. maintain 80 PCI, reach a PCI of 85 in 7-years);
- Recommendations budget strategies and unit costs

Understanding of Need / Scope of Work



- Demonstration of effectiveness of several M&R strategies including preventive, recycling alternatives, high-density mineral bonds and surface/base reconstruction
- Scheduling with the City's major CIP projects (water, sewer, etc.) ;
- Budgetary recommendations that satisfy OCTA Local Match Reduction guidelines;
- Future routine maintenance needs based on projected deterioration rates;
- Renewed Measure M and AHRP objectives and improving citywide weighted PCI

The primary emphasis of this task is to maximize the scheduling of street maintenance using the most cost-effective strategies available and taking into account a life-cycle cost analysis.

A working "draft" Final Report will be generated for City staff to review. The report will include an executive summary, the PCI Report as well as draft budgetary findings and recommendations.

Deliverable: Two copies of the Draft Pavement Management Program Report

TASK 2.5: Final Report - OCTA Compliance Reports / Citywide CIP Report

Through our previous project experience with the City; internal staff has developed a comprehensive, reliable PMP report that is compliant with OCTA and internal needs. If necessary, Bucknam will deliver the Final Report to the City which will be essential for staff reference and use as well as presented in a way that is beneficial for elected officials/upper management.

This report will assist the City in complying with OCTA and its most recent Countywide PMP Guideline requirements. The report will be prepared in a format that uses the information delivered by StreetSaver in conjunction with the information and analysis performed by our team. The report will also provide the City with information on:

- Current inventory and pavement conditions indices (PCI) for all road classes
- Projected annual rehabilitation programs for street maintenance for a 7-yr period (ARTERIAL and LOCAL Forecast Maintenance Reports) that show the largest return on investment and acceptable levels of service
- Modeling and comparison of budget scenarios typically include:
 - Maintenance required to complete all streets within 7-years
 - Current / Actual budget projection (citywide approach)
 - **7-year CIP projection budget for OCTA submittal requirements**
 - **Final Local Match Reduction budgetary models / results**
- Strategies and recommendations for the City's AHRP, SB1, Measure M and maintenance programs and procedures, including a preventative maintenance schedule
- Supporting documentation required by OCTA
- A detailed breakdown of deferred maintenance (backlog)

Understanding of Need / Scope of Work



Our OCTA PMP submittals have been well received by OCTA and are formatted in such a way for easy review and acceptance. Our staff will include within the draft/final report the following minimum data:

- I. **Pavement Management Plan Certification**
- II. **Executive Summary**
- III. **Background (Santa Ana PMP)**
- IV. **Current Pavement Conditions (PCI)**
- V. **Projected Pavement Conditions (PCI)**
- VI. **Alternative Funding Levels**
 - Maintain Existing Average Network PCI
 - Improve Average Network PCI
- VII. **Current and Projected Backlog by Year of Pavement Maintenance Needs**
- VIII. **Centerline Mileage**
- IX. **Percentage of Network in Each of Five Condition Categories Based on Centerline mileage**
- X. **Reduction in M2 Local Match**
- XI. **Appendix A – Seven-Year Road Maintenance and Rehabilitation Plan Based on Current or Expected Funding Level**
- XII. **Appendix B – Complete Street Listing Current Conditions**
- XIII. **Appendix C – Quality Assurance / Quality Control Plan**
 - Introduction
 - Objectives
 - Structure of QA/QC Plan
 - Condition Survey Procedures
 - Accuracy Required for Data Collection
 - Random and Systematic Re-Inspections
 - PCI Comparison with Past Surveys
 - Inspector Qualifications and Experience
 - Safety Procedures
- XIV. **Appendix D – Pavement Management Data Files**

We will make a presentation of the results from the 2021 PMP update to City personal and/or City Council if necessary (pro-bono).

Registered Engineer

Mr. Steve Bucknam, P.E., will review all completed data and prepare and sign a final report incorporating the results of our pavement evaluation and conditions. We will provide engineered recommendations for pavement rehabilitation and replacement design based upon field data and analysis.

Deliverable: Digital file on DVD, one (1) hardcopy of the Final Pavement PMP, in binder and electronic form (.pdf), will be sent to the City. Bucknam will provide one (1) verified copy of StreetSaver database on DVD as well as all M&R, survey and budget analysis data.

Understanding of Need / Scope of Work



Optional Tasks

TASK 3.1: GIS Map Integration

As an enhancement and proactive approach to this project, our staff will update the existing Pavement-GIS link between MicroPAVER and the City's GIS system. Our staff will review, with City staff, all ongoing upcoming capital projects that may impact the GIS mapping delivered for this project (includes approx. 30 or less segments to be added/deleted from database).

The maps described below will be incorporated into the City's Final PMS report:

- PCI values for every section
- Work History identifications
- 7-yr Arterial / Local Rehabilitation and Slurry Seal Programs
- Functional classification maps



Once the City has approved the Pavement Condition Report, we will update the necessary MicroPAVER-GIS linkages (street names will be shown on all maps). By using the unique ID's within the PMS and the City's ESRI street shapefile ID's, we will create a one-to-one match for each pavement section in the GIS. Our staff will coordinate all project deliveries with the Public Works and the GIS division to ensure that the most current and accurate PMS-GIS maps are represented within the City's GIS enterprise.

We can also provide this data to the City's ESRI ArcGIS Online software (if owned) or can provide these mapping services through Bucknam Web-GIS portal supported through ArcGIS Online.

Deliverable: Complete GIS files/themes based on list above (shapefiles).

TASK 3.2: Santa Ana MyRoads™ PMP Web-Portal

Santa Ana MyRoads™ Web-Portal – Bucknam's proprietary option of MyRoads™ is a great match for the Santa Ana PMP today and the future. **This option brings your PMP data to life within a dynamic PMP dashboard!**

Bucknam now provides all our PMP clients with a unique and agency driven "MyRoads™" web-portal that provides instantaneous access to your pavement management database. This "dashboard" allows users to toggle through individual sections via GIS mapping selections, zone queries, rank selection, PCI ranges, etc. to review all section metrics, latest/previous inspections, work histories generate filtered PCI reports and identify potential maintenance costs based upon your unique needs.

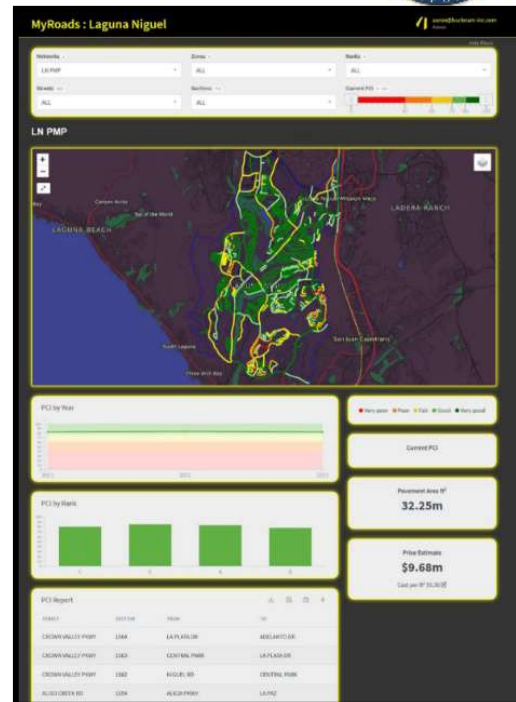
Bucknam has shown below a current local agency MyRoads™ account actively working! This tool will be accessed by City staff simply through a Username/Password methodology. As

Understanding of Need / Scope of Work



changes are made to the Santa Ana PMP database the MyRoads™ dataset is changed to reflect work history edits, PCI inspections and section changes. In summary, MyRoads™ allows the user perform the following dynamic functions:

- Query specific segment(s) to view current/historic PCI, work history inspection;
- Filter for pavement sections within a zone, PCI range and/or functional class;
- Select a pavement section or grouping of section through the on-board GIS tool;
- Enter slurry, overlay & reconstruction unit costs to determine preliminary cost of maintenance and resulting citywide PCI
 - Display critical street / ROW assets along pavement section(s) that are critical to Engineering Bid development and solicitation (ADA ramps, utilities, trees, etc.)
- Displays all final GIS project maps (PCI, work history, 5-yr forecasted maintenance, etc.)
- Bucknam will train Santa Ana staff on the simply use of the MyRoads™ dashboard



General Requirements

- Bucknam agrees that project work shall be performed in conformance with the City and OCTA's policies, procedures and standards
- Bucknam shall have total responsibility for the accuracy and completeness of all inspections performed and documents prepared. The documents provided under the Agreement shall be of a quality acceptable to the City. The criteria for acceptance shall be a product of neat appearance, well organized and technically and grammatically correct. No assumption of the number of review rounds has been taken
- Bucknam will be using laptop/tablet based surveys (digital input/output); as a deliverable a paper based forms shall be submitted to the City for the City's records or the methodology for upload of electronic data collected shall be clearly defined and a method for data verification provided

Project Deliverables

- Updated StreetSaver database within City's license cloud-based program(batch file format delivery for OCTA; digital file on DVD/CD
- Final PMP report; digital file on DVD/CD and 1 hard copy

Relevant Project Experience



Relevant Project Experience

The following project experience presents our description of work, its relevance in completing similar projects for numerous other agencies, OCTA Measure M & M2, Prop. A, and METRO compliance, PMP experience, PMP software training expertise, and the broad knowledge of our pavement project team. Our project team brings over 75 years of public/private engineering and data management experience to the City of Santa Ana. This includes over 500 PMP projects covering turn-key projects, simply training of City staff with pavement management methods, County Measure/Proposition compliancy, financial strategies and Capital Improvement Programs.

Mr. Peter Bucknam, our Project Manager, has worked with over seven (7) San Diego County local agencies, over half the cities within Orange County and 30+ Los Angeles county cities regarding pavement management projects. Over the past twenty-two years, Mr. Bucknam has worked on numerous projects similar to Santa Ana's current PMP project. We have listed four (4) similar pavement management projects that cover the same task descriptions as listed in your RFP:

1. 2000/25 – City of Rancho Santa Margarita, "Citywide Pavement Management Program"
2. 2013/21 – City of San Juan Capistrano, "Citywide Pavement Management Program – GIS"
3. 1998/22 – City of Fountain Valley, "Citywide Pavement Management Program – GIS"
4. 2011/16 – City of Santa Ana, "Citywide Pavement Management Program"

Bucknam Infrastructure Group, Inc.

Citywide Pavement Management Program Update

City of Rancho Santa Margarita (FY 2000-2025) – StreetSaver

Mr. Wilson Leung, P.E., Principal Engineer – (949) 635-1800 x.6506

22112 El Paseo, Rancho Santa Margarita, CA 92688 wleung@cityofrsm.org

Over the past nineteen years, our Project Manager (Mr. Peter Bucknam) has overseen/managed 18 PMP projects for the City of Rancho Santa Margarita. In this span of time the City has increased their overall PCI from the mid-60's to the mid-80's and has been able to sustain the PMP at a high-level of condition.

During this time, until 2015, the City utilized MicroPAVER software to manage the PMP; **through Bucknam's 2015 project RSM converted to StreetSaver. Bucknam has assisted RSM with four additional StreetSaver / OCTA deliveries since 2015.**

We have just signed a new five (5) year contract with the City for PMP services.

Relevant Project Experience



Citywide Pavement Management Program Update City of San Juan Capistrano (2013-2021) - StreetSaver

Mr. Joe Parco, City Engineer – (949) 443-6353

32400 Paseo Adelanto, San Juan Capistrano, CA 92675 jparco@sanjuancapistrano.org

Over the past eight (8) years, our Project Manager (Mr. Peter Bucknam) has overseen/managed four PMP projects for the City of San Juan Capistrano. In this span of time the City has increased their overall PCI from the mid-60's to the mid-70's and has been able to sustain the PMP at a high-level of condition.

Initially, the City utilized MicroPAVER software to manage the PMP; **through Bucknam's 2015 project San Juan converted to StreetSaver. Bucknam has assisted RSM with three additional StreetSaver / OCTA deliveries since 2015.**

Citywide Pavement Management Program City of Fountain Valley (1998-2022) - MicroPAVER

Mr. Temo Galvez, Deputy Director of Public Works / City Engineer – (714) 593-4517

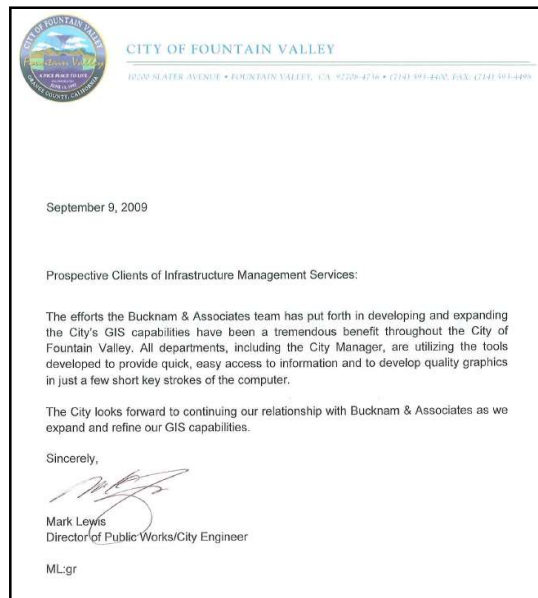
10200 Slater Avenue, Fountain Valley, CA 92708 (temo.galvez@fountainvalley.org)

Mr. Peter Bucknam has managed the City of Fountain Valley's pavement management program for over twenty-four (24) years and is current beginning the 2021-22 annual update for MPAH/Locals for Measure M2 compliance.

Over the twenty-two years Mr. Bucknam has overseen fourteen phases of pavement survey, built the City's Pavement-GIS layer and assisted the City in accomplishing the overlay of more than 90% of the City's arterial network. Our team assisted the City in implementing an Intranet ArcServer Intranet GIS to assist the City in managing all it GIS assets.

Our firm converted all pavement data from CarteGraph to MicroPAVER (2005) based on the use of the program from surrounding agencies and its integration into the City's GIS Intranet program.

Residential maintenance zone management is now the focus of the program where our project team is performing survey, coring and the reorganization of the City's slurry/cape seal zones to create a more attainable, proactive residential maintenance program. Additionally, our staff has performed a citywide arterial and collector pavement management study, sign, catch basin, and curb marking inventory for the City using the Digital Roadway Imaging shown in our scope of



Relevant Project Experience



work. Bucknam serves as the City's on-site GIS Program Manager where we support all GIS services within all departments; this contract runs through FY 2020

Citywide Pavement Management Program Update City of Santa Ana (2011-2016) – MicroPAVER/StreetSaver

Mr. Kenny Nguyen, P.E. – (714) 647-5632

20 Civic Center Plaza (M-36); Ross Annex, Santa Ana, CA 92701 (knguyen@santa-ana.org)

Bucknam has been working with the City of Santa Ana since 2008 and Peter Bucknam, our PMP Project Manager, has worked with the City contiguously since 2001.

Recently in 2016, Bucknam was contracted to assist the City in complying with the OCTA survey and reporting requirements. This project consisted of surveying all MPAH, Local and Alley sections citywide.

Additional local agencies our project manager and staff have worked with over the past fourteen years regarding Pavement Management Programs:

City of Santa Ana	City of El Segundo	City of Cathedral City
City of Temecula	City of Sierra Madre	City of Westminster
City of Burbank	City of Alhambra	City of San Clemente
City of Pico Rivera	City of Yorba Linda	City of Beverly Hills
City of Los Alamitos	City of Tustin	City of Santa Barbara
City of Stanton	City of Rancho Palos Verdes	City of Palmdale
City of Culver City	City of Moreno Valley	City of Arcadia
City of Carlsbad	City of Cypress	City of Huntington Park
City of Costa Mesa	City of Diamond Bar	City of La Habra
City of La Habra Heights	City of Lake Elsinore	City of Lomita
City of National City	OCSD	OCTA
City of Norwalk	City of Orange	City of Palm Desert
City of Santee	City of Rosemead	John Wayne Airport

Schedule



Our Critical Path Method (CPM) project schedule shows each major task identified in our scope of work, as well as quality control milestones and meetings.

Task Name	12-Oct	26-Oct	9-Nov	16-Nov	23-Nov	30-Nov	7-Dec	14-Dec	21-Dec	28-Dec	4-Jan	11-Jan	18-Jan	25-Jan	1-Feb
BASE SCOPE OF WORK															
Task 1.1 - Database Update															
Task 2.1 - Management and Administration	X														
Assess PMP data / Establish Survey															
Quality Control Program															
Project Status Meetings			X			X			X			X			X
Task 2.2 - Pavement Condition Survey															
PCI Reporting						X			X						
Quality Control Checks															
Task 2.3 - Customize Database and Maps															
Develop Recommended Improvement Program															
Task 2.4 - Budgetary Analysis															
Update Maintenance & Rehab															
Task 2.5 - Final Report - OCTA Compliance															
City Review of Draft Final Report															
Project Status Meeting												X		X	
Delivery of Final CIP Report															
OPTIONAL SERVICES															
Task 3.1 - GIS Map Integration															
Task 3.2 - Santa Ana MyRoads PMP Web-portal															

See key milestone dates from the project schedule below:

- Project Kickoff – October 12, 2021
- Survey Completion – February, 2022
- Completion of Budgetary Analysis – March, 2022
- Delivery of draft PMP – April, 2022
- City comments returned to Consultant – April, 2022
- Delivery of City CIP Final Report – May, 2022
 - Santa Ana CIP data/Final Report & OCTA Compliant report, revenue projections will be submitted by May, 2022
- Implementation of StreetSaver database within MTC cloud – Any time after acceptance of Final PMP
- All pavement and GIS data pertinent to the project deliverables will be submitted with the Final PMP report, May, 2022

Bucknam's current workload for the upcoming months (October thru April) have been scheduled in a manner that the City of Santa Ana's PMP project will be delivered on-time and within budget. The project schedule for the fall / winter 2021-22 has been set with our staff internally and we are ready to start the project.

Fee Proposal



Fee Proposal

Bucknam Infrastructure Group, Inc. has included a time and materials, not-to-exceed fee for the City's consideration (separate envelope). Our fee follows the described tasks shown within the Scope of Work.

Additionally, we have created specific line item fee summaries to show the projected costs for surveying all MPAH, Local and Alley networks this fiscal year.

Bucknam is willing to "lock-in" our current hourly rate schedule for the City's three-year PMP contract as well as for the potential latter two years through FY 2025.

As indicated within our fee, all tasks are negotiable.

Certifications



Certifications

Per the City's RFP, Bucknam has provided the necessary certifications forms (see following pages).

Appendix
ATTACHMENT 3-1: NON-COLLUSION AFFIDAVIT
CERTIFICATIONS

NON-COLLUSION AFFIDAVIT
(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF SANTA ANA DEPARTMENT OF PUBLIC WORKS

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the BIDDER declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any BIDDER or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the BIDDER has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the BIDDER or any BIDDER, or to fix any overhead, profit, or cost element of the bid price, or of that of any other BIDDER, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the BIDDER has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit. BIDDERS are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signed _____

State of California

County of SAN DIEGO

Subscribed and sworn to (or affirmed) before me on this _____ day of _____, 20__, by _____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Notary Public Signature

See Attached
CA. Jurat Certificate

Notary Public Seal

* 05/11/2021 *Emily M. Sills* *

CALIFORNIA JURAT CERTIFICATE

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of SAN DIEGO

Subscribed and sworn to (or affirmed) before me on this 11th day of AUGUST,
2021, by PETER J. BUCKNAM

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

WITNESS MY HAND AND OFFICIAL SEAL.

Evelyn M. Giles
Signature of Notary Public



(Notary Seal)

OPTIONAL INFORMATION

The jurat contained within this document is in accordance with California law. Any affidavit subscribed and sworn to before a notary shall use the preceding wording or substantially similar wording pursuant to Civil Code sections 1189 and 8202. A jurat certificate cannot be affixed to a document sent by mail or otherwise delivered to a notary public, including electronic means, whereby the signer did not personally appear before the notary public, even if the signer is known by the notary public. The seal and signature cannot be affixed to a document without the correct notarial wording. As an additional option an affiant can produce an affidavit on the same document as the notarial certificate wording to eliminate the use of additional documentation.

DESCRIPTION OF ATTACHED DOCUMENT

(Title of document)

Number of Pages _____ (Including jurat)

Document Date _____

(Additional Information)

CAPACITY CLAIMED BY THE SIGNER

- ☐ Individual
- ☐ Corporate Officer
- ☐ Partner
- ☐ Attorney-In-Fact
- ☐ Trustee
- ☐ Other: _____

Appendix
ATTACHMENT 3-2: NON-LOBBYING CERTIFICATION
CERTIFICATIONS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence any officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant loan, loan or cooperative agreement, the undersigned shall complete and submit a "Disclosure of Lobbying Activities".

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U. S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such sub recipients shall certify and disclose accordingly.

Firm BUCKNAM INFRASTRUCTURE GROUP

Signed and Printed Name: _____

PETER BUCKNAM

Title _____

PRESIDENT

Date _____

8-11-21

Appendix
ATTACHMENT 3-3: NON-DISCRIMINATION CERTIFICATION
CERTIFICATIONS

The undersigned consultant or corporate officer, during the performance of this contract, certifies as follows:

1. The Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. The Consultant shall, in all solicitations or advertisements for employees placed by or on behalf of the Consultant, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
3. The Consultant shall send to each labor union or representative of workers with which he/she has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Consultant's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The Consultant shall comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
5. The Consultant shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his/her books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation, to ascertain compliance with such rules, regulations, and orders.
6. In the event of the Consultant's non-compliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, the contract may be canceled, terminated, or suspended in whole or in part and the Consultant may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations, or order of the Secretary of Labor, or as otherwise provided by law.
7. The Consultant shall include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted

by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontract or purchase order as the administering agency may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Consultant becomes involved in, or is threatened with, litigation with a sub-consultant or vendor as a result of such direction by the administering agency, the Consultant may request that the United States enter into such litigation to protect the interests of the United States.

8. Pursuant to California Labor Code Section 1735, as added by Chapter 643 Stats. 1939, and as amended,

No discrimination shall be made in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicaps, mental condition, marital status, or sex of such persons, except as provided in Section 1420, and any consultant of public works violating this Section is subject to all the penalties imposed for a violation of the Chapter.

Signed: _____

Title: _____

Firm: _____

Date: _____



PRESIDENT

BUCKNAM INFRASTRUCTURE GROUP

8-11-21

EXHIBIT C

Fee Schedule/Bucknam Infrastructure Group, Inc., Fee Proposal

CITY OF SANTA ANA
Pavement Management Program Update
Fee Proposal - August 11, 2021

	Description	Principal	Project Manager	GIS Manager	Field Technician(s)	Admin	Total by Task
	2021-22 Base Fee	\$265/hr	\$190/hr	\$145/hr	\$94/hr	\$80/hr	
Task 1.1	Database Update		2	3	8		\$1,567
Task 2.1	Management and Administration - QA/QC	1	6	3	50	1	\$6,620
Task 2.2	Pavement Condition Survey (450 miles MPAH & Local)		8	2	560	2	\$54,610
Task 2.3	Customize Database and Maps		3	16	8	1	\$3,722
Task 2.4	Budgetary Analysis	1	6	2	2	1	\$1,963
	- Update Maintenance and Rehabilitation History		1	2	12		\$1,608
Task 2.5	Final Report - OCTA Compliance Report	1	28	3	2		\$6,208
	Reimbursables (mileage, printing, materials)						\$2,740
	All deliverables will become property of the City of Santa Ana						
	All Tasks are negotiable						
	Total Hours per Staff	3	54	31	642	5	
	2021-22 Total Base Fee	\$ 795	\$ 10,260	\$ 4,495	\$ 60,348	\$ 400	\$79,038
	Optional Tasks						
Task 3.1	GIS Map Integration		2	10	6		\$2,394
Task 3.2	Santa Ana MyRoads PMP Web-Portal						\$1,200
Additional services outside of this contract will be negotiated with the City where we will use the Standard Hourly Rate Schedule shown here.							
Assumptions:							
Task 2.1	StreetSaver has been obtained by City, no StreetSaver purchase will be necessary						
Task 2.2	Bucknam to survey 105 centerline miles of MPAH routes						
	Bucknam to survey 317 centerline miles of Local routes (Locals may be excluded from survey due to OCTA's 6-year requirement or City internal schedule)						
	City's recent overlay rehabilitation will reduce total mileage to survey - TBD						
Task 2.4	Work History data entry will be provided by the City + StreetSaver database						
Task 2.5	Presentation to City Council / Upper Management available at no additional cost to City						
Optionals	Optional Tasks to be considered as additional work efforts and fees to base fee						

Standard Hourly Rate Schedule

<u>Category</u>	<u>Rate</u>
Principal	\$ 295
Senior Project Manager	215
Senior Engineer / Planner	195
Construction Manager	190
Pavement Management Project Manager	190
Management Analyst	165
Project Engineer / Planner	160
Engineer / Senior Technician / Sr. GIS Analyst / Senior Inspector	145
Assistant Engineer / GIS Analyst / Inspector	135
CADD Operator	110
Administrative Assistant	100
Field / GIS Technician	94
Clerical / Word Processing	80
Forensic Services	Quote

Reimbursables

Mileage	\$ 0.67/mile
Subconsultant Services	Cost + 15%
Reproduction	Cost + 15%
Travel & Subsistence	Cost + 15%
Fees & Permits	Cost + 15%
Computer Services (External)	Cost + 15%

**Standard Hourly Rates
shown will not be
changed and/or
increased during the
contract period**



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