

**SECOND AMENDMENT TO AGREEMENT TO PROVIDE PAVEMENT
MANAGEMENT PROGRAM AND GIS MAP INTERGRATION SERVICES**

THIS SECOND AMENDMENT to the above-referenced agreement is entered into on October 3, 2023, 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. The parties entered into Agreement No. A-2021-211, dated October 19, 2021, by which Consultant agreed to provide Pavement Management Program Updates ("Agreement"). The engagement of Consultant for said services was based on the selection of Consultant's response to City's Request for Proposal No. 21-076 ("RFP").
- B. The Agreement remains in effect through October 18, 2023, with provision for extension up to two (2) additional one (1) year periods. The Agreement is current and in-effect.
- C. The parties entered into a First Amendment to the Agreement, dated January 17, 2023 (No. A-2023-006), whereby Consultant agreed to an updated Scope of Services to include required on-call PMP/GIS services, an essential tool to perform annual PMP database and reporting updates for the City, which were services not previously contemplated under the Agreement. The First Amendment also increased compensation to Consultant in an amount up to \$66,286.00 for the additional services to be provided therein.
- D. The parties now wish to amend the Agreement to account for continuing services for the 2024 Pavement Management Program Update for Fiscal Year 2023-2024 by increasing the amount expended under the Agreement and to extend the term of the Agreement by an additional one (1) year period.

The Parties therefore agree:

- 1. **Section 1, Scope of Services**, is hereby amended to include additional services for the 2024 Pavement Management Program Update for Fiscal Year 2023-2024, as detailed in Consultant's Proposal, dated July 12, 2023, attached hereto and incorporated herein as **Exhibit A-2** to this Second Amendment. Consultant agrees that it has not provided any services detailed in **Exhibit A-2** and will not begin any services prior to the effective date provided above.
- 2. **Section 2, Compensation**, is amended to increase the total compensation to be expended under the Agreement by \$100,000.00, as detailed in Consultant's Fee Proposal, attached hereto and incorporated herein as **Exhibit B-2**. This amount includes a base amount of \$90,944.00 and a contingency amount of \$9,056.00, to be exercised at City's sole discretion. Consultant agrees it has not rendered any services detailed by this Second Amendment to which it is owed payment by the City prior to the effective date noted above.
- 3. Pursuant to Section 3 of the Agreement, **Term**, the time period of the Agreement is extended for the additional one (1) year term ending on October 18, 2024.

4. Except as modified by this Amendment, all terms and conditions of the Agreement shall remain in full force and effect.

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

ATTEST

CITY OF SANTA ANA

JENNIFER L. HALL
City Clerk

KRISTINE RIDGE
City Manager

APPROVED AS TO FORM

Sonia R. Carvalho
City Attorney

CONSULTANT

By: 

JONATHAN T. MARTINEZ
Assistant City Attorney

By: 

Title:

PETER BUCKNAM
PRESIDENT

RECOMMENDED FOR APPROVAL

NABIL SABA
Executive Director
Public Works Agency

EXHIBIT A-2

July 12, 2023

Mr. David Ramirez
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 – 2023-24

Dear David:

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 extend the strong, established pavement management methodologies in place, Bucknam's proactive inspections, Capital Improvement Program / OCTA compliance reporting and GIS enhancements will continue to deliver cost efficient PMP services that annually assist the City in the management of your PMP. 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 services will be provided through cost-conscious pavement inspections, annual work history updates, relevant CIP reporting, alternative budgetary reporting, GIS-PMP assessment/publication and general database management. Our firm is unique in that we provide:

- ❖ **Comprehensive and compliant PMP services to Santa Ana for the 2023-24 Pavement Management Program Update**
- ❖ Relevant and accurate PMP services based on our ongoing work with the Orange County Transportation Authority (OCTA), Measure M compliance (**Bucknam is currently assisting twenty-one (21) Orange County agencies comply with PMP/Measure M**)

Additionally, Bucknam was selected by OCTA in FY 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 "Cloud-based Learning Technology" Artificial Intelligence (AI) to calculate, compare and qualify all AC/PCC segment SF's within the City of Santa Ana (**on-going**)



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- ❖ 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. Santa Ana, 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, Laguna Woods, Placentia, Buena Park, Seal Beach 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 / **Measure M 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.

Respectfully submitted,

Bucknam Infrastructure Group, Inc.



Peter J. Bucknam
Project Manager / President

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 PMP goals;

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: Project Kickoff

The first step in implementing a successful pavement management program truly resides in frequent communication and timely scheduled data updates. For the City of Santa Ana it will be essential to establish, up front, the Public Works pavement management priorities. Our team will set a Project Kickoff meeting with the key Public Works staff to discuss and review in detail the expectations of the project, technical approach, section ID / GIS management & surveys, district/zone maintenance, software upgrades & use, deliverables within the scope of work and the review of schedule.

This effort will build consensus between the Public Works/Maintenance staff as well as build stronger ARTERIAL CIP and LOCAL neighborhood maintenance programs that complement large Public Works CIP projects and annual maintenance projects.

Deliverable: Meeting minutes, revised project schedule (if necessary)

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.

Understanding of Need / Scope of Work



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;
- 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 464 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 46 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 2022 data will be compared to newly inspected 2024 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 create variance PCI reports that will compare the previous and current PMP databases/inspections.

Since we are collecting distress information on our field Tablets with the Santa Ana StreetSaver database live, our staff will perform several quality control tests within StreetSaver 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 twenty-one (21) OCTA Measure M compliant reports for OC municipalities, they include:**

Orange County PMP Clients (Current)		
Brea	La Palma	RSM
Costa Mesa	Orange	Tustin
Laguna Hills	Laguna Beach	Westminster
Fountain Valley	San Juan Capistrano	La Habra
Huntington Beach	Laguna Woods	Fullerton
Seal Beach	Santa Ana	Placentia
Buena Park	Cypress	Stanton

Every year our staff has attended the OCTA PMP Distress Training Classes held from 2011 thru 2023.

Understanding of Need / Scope of Work



In February 2023 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 2025; 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

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 464 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 request the following pavement sections are to be surveyed for the upcoming 2023-24 PMP update:

2023-24 Survey (115 MPAH, 322 Local, and 27 Alley centerline miles (464 miles)

- 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

Understanding of Need / Scope of Work



- Based on the City's request all segments within the three (3) networks will be surveyed in 2024;

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/ASTM sampling guidelines.

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 StreetSaver PMP-Tablet units allows our staff to collect the necessary pavement data 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.

Type	Severity	Qty
02 - Bleeding	L - Low	950
05 - Corrugation	L - Low	225
01 - Alligator Cracking	M - Medium	1480

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.

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

- Street name, from/to, indicating the assigned limits of the section, a Segment ID (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 2024 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

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.

Understanding of Need / Scope of Work



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 staff has access to it through StreetSaver online services.

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 distress percentages of Load, Climate and Other categories

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

TASK 2.3: Budgetary Analysis

Bucknam will review all city provided maintenance/rehabilitation projects that have been completed since the last major PMP update (i.e. June 2022) 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 reconstruction 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 alternative 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 2024-2031 fiscal year maintenance/rehabilitation programs.

We will establish/update a M&R “decision tree” that will be used to generate pavement recommendations that match current 2023-24 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), 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.

Understanding of Need / Scope of Work



The curves will be modified based on 2024 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. 2024-2031). Once the repair/rehabilitation strategies have been defined, the identification of a seven year Forecast Maintenance & Rehabilitation 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 76 PCI, reach a PCI of 80 in 7-years);
- Recommendations budget strategies and unit costs
- Demonstration of effectiveness of several M&R strategies including preventive, recycling alternatives, high-density mineral bonds and surface/base reconstruction
- Coordinated 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" 2024 Pavement Management Program 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 2.4: Final Report - OCTA Compliance Reports / Citywide CIP Report

Through our previous 2022 project experience with the City; internal staff has developed a comprehensive, reliable PMP report that is compliant with OCTA and internal needs. Bucknam will deliver the 2024 Pavement Management Program 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 & Rehabilitation Reports) that show the largest return on investment and acceptable levels of service
- Modeling and comparison of budget scenarios typically include:
 - **Current / Actual budget projection (citywide approach)**
 - 7-year CIP projection budget for OCTA submittal requirements
 - Final Local Match Reduction budgetary models / results
 - **Maintain PCI & Increase PCI**
 - 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)

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**

Understanding of Need / Scope of Work



- 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 – GIS Digital Data**
- XIV. **Appendix D – 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
- XV. **Appendix E – Pavement Management Data Files**
- XVI. **Appendix F – GIS Maps / Current Conditions**

We will make a presentation of the results from the 2024 PMP update to City personal and/or City Council if necessary (pro-bono).

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

TASK 2.5: GIS Map Integration

As an enhancement and proactive approach to this project, our staff will update the existing Pavement-GIS link between StreetSaver 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 PMP report & GIS Enterprise:

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

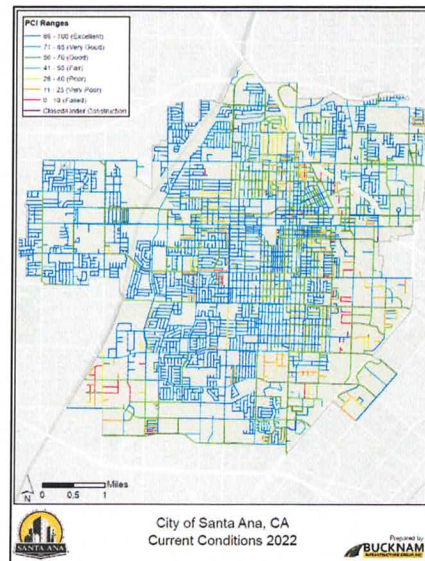
Understanding of Need / Scope of Work



Once the City has approved the Pavement Condition Report, we will update the necessary StreetSaver-GIS linkages. By using the unique ID's within the PMP and the City's ESRI street shapefile ID's, we will publish 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 PMP-GIS maps are represented within the City's GIS enterprise & MyRoads®.

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 internally, with Devmecca and StreetSaver support staff to publish the draft and final map products.

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

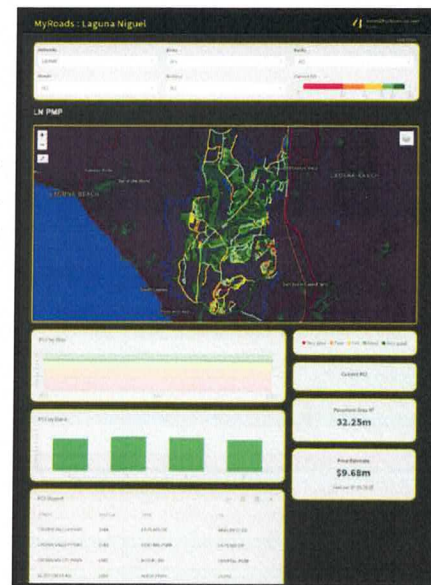


TASK 2.6: Santa Ana MyRoads® PMP Web-Portal

Santa Ana MyRoads™ Web-Portal – Bucknam's MyRoads® PMP web-portal is a great match for the Santa Ana PMP today and the future. **Our application brings your PMP data to life within a dynamic 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 Lasso map selections, zone queries, rank selection and PCI ranges to review all section metrics, latest/previous inspections, work histories and filtered PCI reports. To cap it off, your selections/queries also generate preliminary engineering costs estimations for slurry, overlay and reconstruction projects and provides you with the predictive PCI as if the work is complete.

Bucknam has shown a current 2023 MyRoads® account actively working!



This tool will be accessed by City staff simply through a Username/Password methodology. As changes are made to the Santa Ana PMP database the MyRoads® dataset is changed to reflect work history edits, PCI inspections and section changes.

Understanding of Need / Scope of Work



In summary, MyRoads® allows the user perform the following dynamic functions:

- Query specific pavement segment(s) to view current/historic PCI, work history inspection;
- Filter for pavement sections within a defined 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 / sidewalks / signs / ROW assets along pavement section(s) that are critical to Engineering Bid development and solicitation (ADA ramps, utilities, manholes, trees, etc.);
- Displays all final GIS project maps (PCI, work history, 7-yr forecasted maintenance, etc.);
- Bucknam will train Santa Ana staff on the simple use of the MyRoads® dashboard.

Project Deliverables

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

Project Schedule

Our project schedule shows each major task identified in our scope of work, as well as quality control milestones and meetings. See key milestone dates from the project schedule below:

- Project Kickoff – October, 2023
- Survey Start / Completion – November, 2023 to April, 2024
- Completion of Budgetary Analysis – April - May, 2024
- Delivery of draft PMP – May, 2024
- City comments returned to Consultant – May, 2024
- Delivery of City CIP Final Report – May, 2024
 - Santa Ana CIP data/Final Report & OCTA Compliant report, revenue projections will be submitted by May, 2024
- 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, 2024

EXHIBIT B-2

Understanding of Need / Scope of Work



Bucknam's current workload for the upcoming months (October thru May) 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 2023-24 has been set with our staff internally and we are ready to start the project.

Proposed Fee

Task Items 1 through 2 can be accomplished on a **time and materials, not-to-exceed basis** in accordance with the standard hourly rate schedule attached. Our anticipated fee including labor and reimbursable expenses is projected to be \$100,000 for an eight-month period.

	Description	Principal	Project Manager	GIS Manager	Senior Technician	Field Technician(s)	Admin	Total by Task
	2023-24 Base Fee	\$295/hr	\$200/hr	\$160/hr	\$155/hr	\$104/hr	\$90/hr	
Task 1.1	Project Kickoff		2		1	1		\$659
Task 2.1	Management and Administration - QA/QC	1	4	3		46	1	\$6,449
Task 2.2	Pavement Condition Survey (464 miles MPAH, Local and Alley)		6	2	8	590	1	\$64,210
Task 2.3	Budgetary Analysis	1	6	2	4	2	1	\$2,733
	- Update Maintenance and Rehabilitation History		1	2	2	10		\$1,870
Task 2.4	Final Report - OCTA Compliance Report	1	32	3	6			\$8,105
Task 2.5	GIS Map Integration		2	12	4	2		\$3,148
Contingency								\$9,056
	Reimbursables (mileage, printing, materials)							\$3,770
	All deliverables will become property of the City of Santa Ana							
	All Tasks are negotiable							
	Total Hours per Staff	3	51	12	21	649	3	
	2023-24 Total Base Fee	\$ 885	\$ 10,200	\$ 1,920	\$ 3,255	\$ 67,496	\$ 270	\$100,000
	Optional Tasks							
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 115 centerline miles of MPAH routes							
	Bucknam to survey 322 centerline miles of Local routes							
	Bucknam to survey 27 centerline miles of Alley routes							
	City's recent overlay rehabilitation will reduce total mileage to survey - TBD							
Task 2.3	Work History data entry will be provided by the City + StreetSaver database							
Optionals	Optional Tasks to be considered as additional work efforts and fees to base fee							

Should the City desire to increase the service level above the hours outlined above for the Task items 1 through 2 or require other services not described herein, a fee adjustment would be negotiated and mutually agreed upon by both parties.

Understanding of Need / Scope of Work



Standard Hourly Rate Schedule

<u>Category</u>	<u>Rate</u>
Principal	\$ 295
Senior Project Manager	215
Pavement Management Project Manager	200
Management Analyst	175
Project Engineer / Planner	165
Sr. Engineer / GIS Manager / Sr. Inspector	160
Assistant Engineer / Sr. Technician / GIS Analyst	155
CADD Operator	110
Field Technician	104
Administrative Assistant	100
Clerical / Word Processing	90

Reimbursables

Mileage	\$0.75/mile
Subconsultant Services	Cost + 15%
Reproduction	Cost + 15%
Travel & Subsistence	Cost + 15%
Fees & Permits	Cost + 15%
Computer Services (External)	Cost + 15%

Rates Effective 7/1/23



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