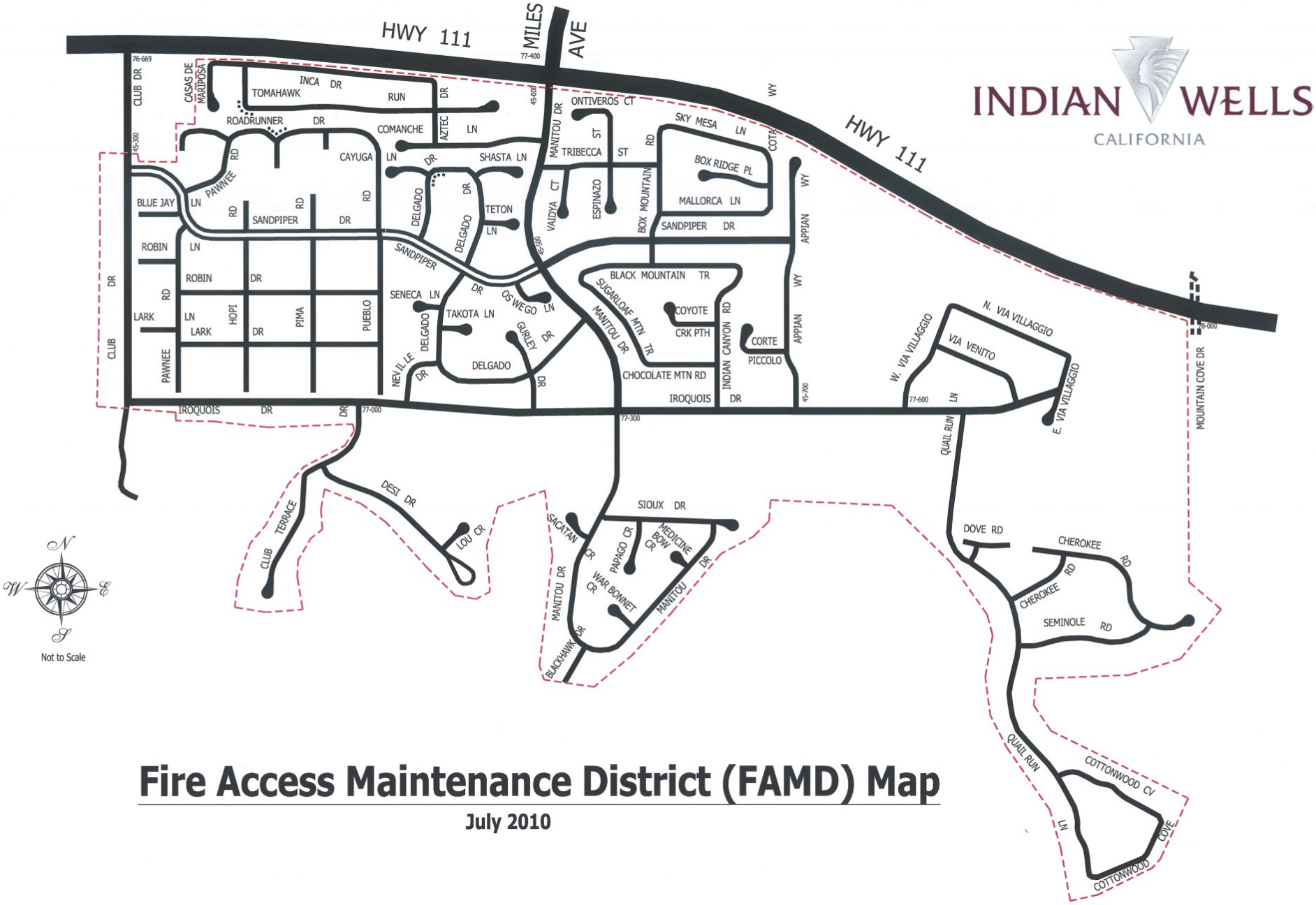
INDIAN WELLS COUNTRY CLUB COMMUNITY
FIRE ACCESS MAINTENANCE DISTRICT (FAMD) NO. 1

BOARD OF DIRECTORS MEETING
March 14, 2024
10:00 A.M.

This Meeting will be held In-Person at
The City of Indian Wells City Council Chambers
44950 El Dorado Drive Indian Wells, CA



Fire Access Maintenance District (FAMD) Map

July 2010

O:\Bondie\FAMD\FAMD Sub District Map.dwg, Tabloid PDF No Aerial, 7/13/2010 1:24:52 PM, Adobe PDF.pc3

FAMD #1
Fire Access Maintenance District
An Agency of the City of Indian Wells
Indian Wells Country Club Community

BOARD OF DIRECTORS 2024

Director	Term Ends
Name: Kurt Yeager (Chairperson) Phone: (949) 632-6157 Email: ekurty01@gmail.com	February 28, 2025
Name: Margaret "Marge" Barry (Vice Chair) Phone: (760) 772-0404 or (760) 219-3100 cell Email: iwmarge@gmail.com	February 28, 2026
Name: Open Seat (Secretary) Phone: Email:	February 28, 2025
Name: Tony Trocino (Director) Phone: (760) 610-1751 Email: trotony7@dc.rr.com	February 28, 2026
Name: Steve Nozet (Director) Phone: (925) 698-4632 Email: nozetsteve@gmail.com	February 28, 2025
Name: Dennis Coker (IWCC Rep) Phone: (760) 345-2561 Email: Dennis.Coker@clubcorp.com	Appointed (No Term)

FIRE ACCESS MAINTENANCE DISTRICT NO. 1
INDIAN WELLS COUNTRY CLUB COMMUNITY

Board of Directors Meeting Agenda

March 14, at 10:00 A.M.
Board will Meet in the City Council Chamber of the
City of Indian Wells at 44950 El Dorado Indian Wells CA

1. CALL TO ORDER OF THE FAMD, ROLL CALL

Chairman - Kurt Yeager
Vice Chairman – Margaret "Marge" Barry
Secretary – Open
Director - Tony Trocino
Director – Steve Nozet
IWCC Representative – Dennis Coker

2. **PLEDGE OF ALLEGIANCE**

3. APPROVAL of the FINAL AGENDA

March 14, 2024 **Page(s) 5-6**

4. PUBLIC COMMENTS

All persons wishing to address the FAMD Board will be called on during this section of the meeting by the Chairman. At the appropriate time, please come forward to the podium and state your name for the record. Speakers are limited to three minutes. Parties are encouraged to submit their comments in writing with any attachments or exhibits they wish for the FAMD Board to review, preferably 24 hours prior to the meeting. Speakers can then use their three-minutes to summarize the key points of their comments. Please note that you may address the FAMD Board on an agenda item at the time it is discussed, but only after being recognized by the Chairman.

Under the Brown Act, the FAMD Board should not take action on or discuss matters raised during the public comment portion of the agenda which are not listed on the agenda. FAMD Board Members may refer such matters to staff for information or to be placed on a subsequent agenda for consideration. Notwithstanding the foregoing, FAMD Board Members and staff may briefly respond to statements made or questions posed during public comment, if such responses do not constitute any deliberation.

5. CLOSED SESSION

a. Conference with Legal Counsel Regarding Anticipated-Litigation-Initiation of Litigation Pursuant to Government Code Section 54956.9(d)(4). One (1) or More Cases. Potential Case.

6. CONSENT CALENDAR

All matters listed on the Consent Calendar are routine and will be enacted by one vote. There will be no separate discussion of these items unless members of the FAMD Board or audience request that specific items be removed from the Consent Calendar for separate discussion and action. Financial matters will be indicated as budgeted or non-budgeted below.

a. Minutes; February 8, 2024 **Page(s) 7-8**
b. Financials; February 2024 **Page(s) 9**
c. Contract Amendment with Desert Air Conditioning **Page(s) 11-13**
d. Contract Amendment with PureDMS Inc., PURE Community Service **Page(s) 15-31**

7. SECURITY REPORT

a. February 2024 Security Report **Page(s) 33-36**

8. OLD BUSINESS

a. Annual Assessment and Ballot Measure Update **Page(s) Verbal**

b. Electrical Reimbursement Agreement with Sandpiper Cove #3 for Bridge Lighting **Page(s) Verbal**

c. Electrical Reimbursement Agreement with Manitou Springs HOA for Bridge Lighting **Page(s) Verbal**

9. NEW BUSINESS

a. Review RFPs for 5-Year Pavement Management Plan **Page(s) 37-39**

- Bucknam Infrastructure Group **Page(s) 41-68**
- Kimley Horn **Page(s) 69-82**
- HR Green **Page(s) 83-108**
- GMU **Page(s) 109-126**
- IMS **Page(s) 127-154**

b. Appointment of Board of Director Seat **Page(s) Verbal**

10. FAMD DISTRICT MANAGERS REPORT

a. Priority Three Update

b. Drainage Analysis

c. Guardhouse Remodel

11. BOARD MEMBERS COMMENTS

12. ANNOUNCEMENTS

Next Meeting April 11, 2024

13. ADJOURNMENT

INDIAN WELLS COUNTRY CLUB COMMUNITY
FIRE ACCESS MAINTENANCE DISTRICT NO. 1
BOARD OF DIRECTORS OPEN MEETING

IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE SENIOR BUILDING INSPECTOR OR THE RISK MANAGER AT (760) 346-2489. A 48-HOUR NOTIFICATION PRIOR TO THE MEETING WILL ENABLE THE CITY TO MAKE REASONABLE ARRANGEMENTS TO ENSURE ACCESSIBILITY TO THIS MEETING (128 CFR 35.102.35.104 ADA TITLE III).

AFFIDAVIT OF POSTING

I, Angelica Avila, certify that on March 11, 2024, I caused to be posted a notice of a FAMD #1 Board Meeting to be held on Thursday March 14, 2024, at 10:00 A.M., in person in the City Council Chamber's.

FAMD #1
Fire Access Maintenance District
An Agency of the City of Indian Wells
Indian Wells Country Club Community

BOARD OF DIRECTORS MEETING

MINUTES
February 8, 2024

1. **CALL TO ORDER**
Chairman Kurt Yeager called meeting to order at 10:10 A.M. Quorum was not met, board continued the meeting noting that Marge Barry was scheduled be late.

ROLL CALL

PRESENT: Chairman - Kurt Yeager
Vice Chairman – Margaret "Marge" Barry – Quorum at 10:47 A.M.
Director - Tony Trocino
Director – Steve Nozet

ABSENT: Secretary – Open
IWCC Representative – Dennis Coker

ALSO, PRESENT: District Manager (DM) Scott Matas (Desert Resort Management/ Associa),
Ken Seumalo (City of Indian Wells, Public Works Director),
Kevin McCarthy (Finance Director),
Jennifer Aguilar (City of Indian Wells, Administrative Assistant)

2. **PLEDGE OF ALLEGIANCE**

3. **APPROVAL OF THE FINAL AGENDA**
A motion was made by Director Tony Trocino and a 2nd by Director Steve Nozet to approve the agenda for the February 8, 2024, FAMD board meeting. Motion carried 4/0.

4. **PUBLIC COMMENTS**
No Comments.

5. **CONSENT CALENDAR**
   a. Minutes; January 11, 2024
   b. Financials; January 2024

A motion was made by Director Steve Nozet and a 2nd by Director Tony Trocino to approve the Consent Calendar. Motion carried 4/0.

6. **SECURITY REPORT**
   a. January 20204 Security Report

Director of Security Paul Stotesbury presented the report and noted significate events. The Board of Directors reviewed the report with no questions.

7. OLD BUSINESS

a. Annual Assessment and Ballot Measure Update
Finance Director Kevin McCarthy updated the board on the progress with the request for proposals to award contracts to agencies that will assist with the process of distribution and education of a possible ballot measure. The board also received an update on timelines and possible future decisions. The item was informational, and no action was taken.

8. NEW BUSINESS

a. RFP Review of Drainage Analysis
The Board of Directors review four (4) proposals that met the qualifications for a drainage analysis in the Club Terrance, Manitou Springs and Quail Run neighborhood of the Indian Wells Country Club.

A motion was made by Vice Chair Marge Barry and a 2nd by Director Steve Nozet to approve a contract with Q3 Consulting for an amount not to exceed $65,324.00 and to direct the finance department to allow a supplemental appropriation for this contract to be awarded from the Capital Expenditure GL 2099929 673100. Motion carried 4/0.

b. Appointment of Board of Director Seat
Due to the passing of Director Charlie Jones the board directed the district manager to post the 30-day notice of an open seat on the FAMD Board of Directors.

A motion was made by Director Steve Nozet and a 2nd by Chair Marge Barry to post the 30-day notification of an open board seat. Motion carried 4/0.

9. DISTRICT MANAGER REPORT

The District Manager reported and answered questions regarding on the progress on the Priority 3 road rehabilitation project, the RFP for the PMP and Electrical share agreements with Manitou Springs and Sandpiper Cove #3.

10. BOARD MEMBER COMMENTS

None

11. ANNOUCEMENTS

The next regularly scheduled meeting of the Fire Access Maintenance District Board of Directors will be held at 10:00 A.M., on March 14, 2024, in person at the City of Indian Wells council chambers.

12. ADJOURNMENT

There being no more business the meeting was adjourned by Chair Kurt Yeager at 11:28 A.M. in the memory of Director Charlie Jones for his service to the Fire Access Maintenance District #1 and the City of Indian Wells. Each director stated that he will be missed as a friend and colleague and for his consistent advocacy and leadership for safe roads.

Respectfully Submitted, Scott Matas, District Manager

Attested to: _____ Date: _____

Indian Wells, CA

YEAR-TO-DATE BUDGET REPORT
FEB 2024

FOR 2024 08

ACCOUNTS FOR: 209 F.A.M.D. #1	ORIGINAL APPROP	REVISED BUDGET	YTD ACTUAL	MTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	PCT USE/COL
2090000 F.A.M.D. #1							
2090000 411100 CYSecPrpTx	-325,000	-325,000	-186,894.31	.00	.00	-138,105.69	57.5%*
2090000 411200 CYUnsPrpTx	-8,170	-8,170	-9,671.60	.00	.00	1,501.60	118.4%
2090000 411300 PYPrpTx	-2,050	-2,050	-2,957.33	.00	.00	907.33	144.3%
2090000 411400 RollPrpTx	-1,850	-1,850	-2,698.42	.00	.00	848.42	145.9%
2090000 421100 Fire Acces	-1,194,000	-1,194,000	-689,850.48	.00	.00	-504,149.52	57.8%*
2090000 431100 Const Pmt	-1,080	-1,080	.00	.00	.00	-1,080.00	.0%*
2090000 451100 Invst Earn	-48,000	-48,000	7,192.00	.00	.00	-55,192.00	-15.0%*
2090000 461500 PropTxRelf	-1,830	-1,830	-755.33	-528.73	.00	-1,074.67	41.3%*
2090000 465100 Gr & Reimb	0	0	-15,804.00	.00	.00	15,804.00	100.0%
2090000 486300 Misc Rev	-3,450	-3,450	-1,580.00	-260.00	.00	-1,870.00	45.8%*
TOTAL F.A.M.D. #1	-1,585,430	-1,585,430	-903,019.47	-788.73	.00	-682,410.53	57.0%
2098601 F.A.M.D. Program							
2098601 531000 Prof Svcs	168,750	168,750	62,916.85	8,781.62	69,520.02	36,313.13	78.5%
2098601 533000 Contr Svcs	996,750	1,096,371	641,984.41	97,074.96	444,656.38	9,730.21	99.1%
2098601 542000 Utilities	32,950	32,950	24,593.50	2,766.50	4,156.56	4,199.94	87.3%
2098601 544000 Bldg&GrMnt	137,650	132,650	50,586.05	5,574.43	49,108.05	32,955.90	75.2%
2098601 545000 Infrastruc	130,000	127,400	73,910.58	15,045.25	53,089.42	400.00	99.7%
2098601 552000 Communicat	18,750	26,250	11,652.69	1,562.11	8,350.97	6,246.34	76.2%
2098601 561000 Office Exp	9,500	9,500	553.41	.00	8,486.65	459.94	95.2%
2098601 563000 Opr Matrls	1,500	1,600	1,092.00	136.50	508.00	.00	100.0%
2098601 565000 MinorEquip	2,500	2,500	.00	.00	.00	2,500.00	.0%
2098601 591600 IndrctCost	15,000	15,000	1,250.00	.00	.00	13,750.00	8.3%
TOTAL F.A.M.D. Program	1,513,350	1,612,971	868,539.49	130,941.37	637,876.05	106,555.46	93.4%
2099929 FAMD Capital							
2099929 673100 ConstContr	0	774,241	660,254.00	.00	.00	113,987.00	85.3%
TOTAL FAMD Capital	0	774,241	660,254.00	.00	.00	113,987.00	85.3%
TOTAL F.A.M.D. #1	-72,080	801,782	625,774.02	130,152.64	637,876.05	-461,868.07	157.6%
TOTAL REVENUES	-1,585,430	-1,585,430	-903,019.47	-788.73	.00	-682,410.53	
TOTAL EXPENSES	1,513,350	2,387,212	1,528,793.49	130,941.37	637,876.05	220,542.46	

PRIOR FUND BALANCE 6/30/2023:	1,691,981.28
CHANGE IN FUND BAL-NET OF REVENUES/EXPENSES:	-625,774.02
ENDING FUND BALANCE 2/29/204:	$1,066,207.26

AMENDMENT NO. 1

TO THE MAINTENANCE SERVICES AGREEMENT

BETWEEN

FIRE ACCESS MAINTENANCE DISTRICT NO. 1 OF THE CITY OF INDIAN WELLS

AND

DESERT AIR CONDITIONING, INC.

1. Parties and Date.

This Amendment No. 1 to the Maintenance Services Agreement is made and entered into as of this 1st day of January, 2024, by and between the Fire Access Maintenance District No. 1 ("District") of the City of Indian Wells ("City"), a public agency of the City, and Desert Air Conditioning, Inc., a California corporation with its principal place of business at 590 Williams Road, Palm Springs, CA 92264 ("Contractor"). District and Contractor are sometimes individually referred to as "Party" and collectively as "Parties."

2. Recitals.

2.1 Contractor. District and Contractor entered into an agreement titled "Maintenance Services Agreement" dated November 1, 2022 ("Agreement") for the purpose of retaining the services of the Contractor to provide HVAC maintenance and service.

2.2 Amendment Purpose. District and Contractor desire to amend the Agreement to increase the not-to-exceed compensation amount to include- repair services and replacement parts.

2.3 Amendment Authority. This Amendment No. 1 is authorized pursuant to Section 3.5.9 of the Agreement.

3. Terms.

3.1 Amendment. Section 3.3.1 of the Agreement is hereby amended in its entirety to read as follows:

> "3.3.1 Compensation. Contractor shall receive compensation, including authorized reimbursements, for all Services rendered under this Agreement at the rates set forth in Exhibit "C" attached hereto and incorporated herein by reference. The total compensation shall not exceed Four Thousand Dollars and 00/100 ($4,000.00) per fiscal year without written approval of District's Manger. Extra Work may be authorized, as described below, and if authorized, will be compensated at the rates and manner set forth in this Agreement."

3.2 Amendment. EXHIBIT "B" of the Agreement is hereby amended in its entirety to read as follows:

EXHIBIT "B"
SCHEDULE OF SERVICES

Each Guard Station has one two-ton split system. The price to service these two units four times a year is $832.00 per year. An additional amount not to exceed $4,000.00 is being added to the Agreement to include costs for replacement parts, repair services, and extras.

3.3 Amendment. Section EXHIBIT "C" of the Agreement is hereby amended in its entirety to read as follows:

EXHIBIT "C"
COMPENSATION

Each Guard station has one two-ton split system. The price to service these two units four times a year is $832.00 per year. An additional amount not to exceed $4,000.00 is being added to the Agreement to include costs for replacement parts, repair services and extras.

3.2 Continuing Effect of Agreement. Except as amended by this Amendment No. 1, all other provisions of the Agreement remain in full force and effect and shall govern the actions of the parties under this Amendment No. 1. From and after the date of this Amendment No. 1, whenever the term "Agreement" appears in the Agreement, it shall mean the Agreement as amended by this Amendment No. 1.

3.3 Adequate Consideration. The Parties hereto irrevocably stipulate and agree that they have each received adequate and independent consideration for the performance of the obligations they have undertaken pursuant to this Amendment No. 1.

3.4 Severability. If any portion of this Amendment No. 1 is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.

[Signatures on Next Page]

SIGNATURE PAGE FOR AMENDMENT NO. 1 TO
MAINTENANCE SERVICES AGREEMENT
BETWEEN THE FIRE ACCESS MAINTENANCE DISTRICT NO. 1 OF
THE CITY OF INDIAN WELLS
AND DESERT AIR CONDITIONING, INC.

IN WITNESS WHEREOF, District and Contractor have entered into the Amendment No. 1 as of the date first set forth hereinabove.

FIRE ACCESS MAINTENANCE DISTRICT NO. 1 OF THE CITY OF INDIAN WELLS

Approved By:

_____
SCOTT MATAS
DISTRICT MANAGER

_____
KEN SEUMALO
PUBLIC WORKS DIRECTOR

Attested By:

_____
ANGELICA AVILA
CITY CLERK

Approved as to Form:

_____FOR
BEST, BEST & KRIEGER, LLP
DISTRICT LEGAL COUNSEL

DESERT AIR CONDITIONING, INC.

_____
Signature

_____
Name

_____
Title

_____
Date

_____
Signature

_____
Name

_____
Title

_____
Date

FIRE ACCESS MAINTENANCE DISTRICT NO. 1 OF THE CITY OF INDIAN WELLS
PROFESSIONAL SERVICES AGREEMENT

This Agreement is made and entered into as of January 1, 2024 by and between the Fire Access Maintenance District No. 1 ("District") of the City of Indian Wells ("City"), a public agency of the City, with its principal place of business at 44-950 Eldorado Drive, Indian Wells, California 92210 ("District"), and PureDMS Inc., dba Pure Community Systems, a California corporation with its principal place of business at 7 Tortosa Drive, Rancho Mirage, CA 92270 ("Consultant"). District and Consultant are sometimes individually referred to as "Party" and collectively as "Parties" in this Agreement.

RECITALS

A. District is a public agency of the City and is in need of professional services for the following project:

Website Maintenance Services (hereinafter referred to as "the Project").

B. Consultant is duly licensed and qualified, has the necessary qualifications to provide such services, and desires to perform and assume responsibility for the provision of the services required herein by the District.

C. The Parties desire by this Agreement to establish the terms for District to retain Consultant to provide the services described herein.

AGREEMENT

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. Incorporation of Recitals.

The recitals above are true and correct and are hereby incorporated herein by this reference.

2. Services.

Consultant shall provide the District with the services described in the Scope of Services attached hereto as Exhibit "A."

3. Compensation.

a. Subject to paragraph 3(b) below, the District shall pay for such services in accordance with the Schedule of Charges set forth in Exhibit "B."

b. In no event shall the total amount paid for services rendered by Consultant under this Agreement exceed the sum of Three Thousand Dollars and 00/100 ($3,000.00) without written approval of District's Manager This amount is to cover all printing and related costs, and

the District will not pay any additional fees for printing expenses. Periodic payments shall be made within 30 days of receipt of an invoice which includes a detailed description of the work performed. Payments to Consultant for work performed will be made on a monthly billing basis.

c. Consultant acknowledges that it is hereby contracting to provide services to the District and will only look to District funds for payment of any amounts owed under, or arising from, the Agreement. Under no circumstances will City funds, other than District funds, be a source of payment for any obligations arising under this Agreement.

4. Additional Work.

If changes in the work seem merited by Consultant or the District, and informal consultations with the other party indicate that a change is warranted, it shall be processed in the following manner: a letter outlining the changes shall be forwarded to the District by Consultant with a statement of estimated changes in fee or time schedule. An amendment to this Agreement shall be prepared by the District and executed by both Parties before performance of such services, or the District will not be required to pay for the changes in the scope of work. Such amendment shall not render ineffective or invalidate unaffected portions of this Agreement.

5. Maintenance of Records.

Books, documents, papers, accounting records, and other evidence pertaining to costs incurred shall be maintained by Consultant and made available at all reasonable times during the contract period and for four (4) years from the date of final payment under the contract for inspection by District.

6. Term

The term of this Agreement shall be from January 1, 2024 to June 30, 2028, unless earlier terminated as provided herein. The Parties may, by mutual, written consent, extend the term of this Agreement if necessary to complete the Project. Consultant shall perform its services in a prompt and timely manner within the term of this Agreement and shall commence performance upon receipt of written notice from the District to proceed ("Notice to Proceed"). The Notice to Proceed shall set forth the date of commencement of work.

Consultant shall perform its services in a prompt and timely manner and shall commence performance upon receipt of written notice from the District to proceed ("Notice to Proceed"). Consultant shall complete the services required hereunder within The Notice to Proceed shall set forth the date of commencement of work.

7. Delays in Performance.

a. Neither District nor Consultant shall be considered in default of this Agreement for delays in performance caused by circumstances beyond the reasonable control of the non-performing party. For purposes of this Agreement, such circumstances .a Force Majeure Event. A Force Majeure Event shall mean an event that materially affects the Consultant's performance and is one or more of the following: (1) Acts of God or other natural disasters occurring at the project site; (2) terrorism or other acts of a public enemy; (3) orders of governmental authorities (including, without limitation, unreasonable and unforeseeable delay in the issuance of permits or

approvals by governmental authorities that are required for the services); and (4) pandemics, epidemics or quarantine restrictions. For purposes of this section, "orders of governmental authorities," includes ordinances, emergency proclamations and orders, rules to protect the public health, welfare and safety.

b. Should such a Force Majeure Event occur, the non-performing party shall, within a reasonable time of being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of this Agreement. Delays shall not entitle Consultant to any additional compensation regardless of the Party responsible for the delay.

c. Notwithstanding the foregoing, the District may still terminate this Agreement in accordance with the termination provisions of this Agreement.

8. Compliance with Law.

a. Consultant shall comply with all applicable laws, ordinances, codes and regulations of the federal, state and local government, including Cal/OSHA requirements.

b. If required, Consultant shall assist the District, as requested, in obtaining and maintaining all permits required of Consultant by federal, state and local regulatory agencies.

c. If applicable, Consultant is responsible for all costs of clean up and/ or removal of hazardous and toxic substances spilled as a result of his or her services or operations performed under this Agreement.

9. Standard of Care

Consultant's services will be performed in accordance with generally accepted professional practices and principles and in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions.

10. Conflicts of Interest.

During the term of this Agreement, Consultant shall at all times maintain a duty of loyalty and a fiduciary duty to the District and shall not accept payment from or employment with any person or entity which will constitute a conflict of interest with the District.

11. City Business Certificate.

Consultant shall, prior to execution of this Agreement, obtain and maintain during the term of this Agreement a valid business registration certificate from the City pursuant to Title 5 of the City's Municipal Code and any and all other licenses, permits, qualifications, insurance, and approvals of whatever nature that are legally required of Consultant to practice his/her profession, skill, or business.

12. Assignment and Subconsultant

Consultant shall not assign, sublet, or transfer this Agreement or any rights under or interest in this Agreement without the written consent of the District, which may be withheld for any reason. Any attempt to so assign or so transfer without such consent shall be void and without legal effect and shall constitute grounds for termination. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement. Nothing contained herein shall prevent Consultant from employing independent associates, and subconsultants as Consultant may deem appropriate to assist in the performance of services hereunder.

13. Independent Contractor

Consultant is retained as an independent contractor and is not an employee of District. No employee or agent of Consultant shall become an employee of District. The work to be performed shall be in accordance with the work described in this Agreement, subject to such directions and amendments from District as herein provided. Any personnel performing the work governed by this Agreement on behalf of Consultant shall at all times be under Consultant's exclusive direction and control. Consultant shall pay all wages, salaries, and other amounts due such personnel in connection with their performance under this Agreement and as required by law. Consultant shall be responsible for all reports and obligations respecting such personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, and workers' compensation insurance.

14. Insurance. Consultant shall not commence work for the District until it has provided evidence satisfactory to the District it has secured all insurance required under this section. In addition, Consultant shall not allow any subcontractor to commence work on any subcontract until it has secured all insurance required under this section.

a. Commercial General Liability

(i) The Consultant shall take out and maintain, during the performance of all work under this Agreement, in amounts not less than specified herein, Commercial General Liability Insurance, in a form and with insurance companies acceptable to the District.

(ii) Coverage for Commercial General Liability insurance shall be at least as broad as the following:

(1) Insurance Services Office Commercial General Liability coverage (Occurrence Form CG 00 01) or exact equivalent.

(iii) Commercial General Liability Insurance must include coverage for the following:

(1) Bodily Injury and Property Damage
(2) Personal Injury/Advertising Injury
(3) Premises/Operations Liability
(4) Products/Completed Operations Liability
(5) Aggregate Limits that Apply per Project
(6) Explosion, Collapse and Underground (UCX) exclusion deleted
(7) Contractual Liability with respect to this Agreement

(8) Property Damage
(9) Independent Consultants Coverage

(iv) The policy shall contain no endorsements or provisions limiting coverage for (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; (3) products/completed operations liability; or (4) contain any other exclusion contrary to the Agreement.

(v) The policy shall give District, its officials, officers, employees, agents and District designated volunteers additional insured status using ISO endorsement forms CG 20 10 10 01 and 20 37 10 01, or endorsements providing the exact same coverage.

(vi) The general liability program may utilize either deductibles or provide coverage excess of a self-insured retention, subject to written approval by the District, and provided that such deductibles shall not apply to the District as an additional insured.

b. Automobile Liability

(i) At all times during the performance of the work under this Agreement, the Consultant shall maintain Automobile Liability Insurance for bodily injury and property damage including coverage for owned, non-owned and hired vehicles, in a form and with insurance companies acceptable to the District.

(ii) Coverage for automobile liability insurance shall be at least as broad as Insurance Services Office Form Number CA 00 01 covering automobile liability (Coverage Symbol 1, any auto).

(iii) The policy shall give District, its officials, officers, employees, agents and District designated volunteers additional insured status.

(iv) Subject to written approval by the District, the automobile liability program may utilize deductibles, provided that such deductibles shall not apply to the District as an additional insured, but not a self-insured retention.

c. Workers' Compensation/Employer's Liability

(i) Consultant certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and he/she will comply with such provisions before commencing work under this Agreement.

(ii) To the extent Consultant has employees at any time during the term of this Agreement, at all times during the performance of the work under this Agreement, the Consultant shall maintain full compensation insurance for all persons employed directly by him/her to carry out the work contemplated under this Agreement, all in accordance with the "Workers' Compensation and Insurance Act," Division IV of the Labor Code of the State of California and any acts amendatory thereof, and Employer's Liability Coverage in amounts indicated herein. Consultant shall require all subconsultants to obtain and maintain, for the period

required by this Agreement, workers' compensation coverage of the same type and limits as specified in this section.

d. Professional Liability (Errors and Omissions)

At all times during the performance of the work under this Agreement the Consultant shall maintain professional liability or Errors and Omissions insurance appropriate to its profession, in a form and with insurance companies acceptable to the District and in an amount indicated herein. This insurance shall be endorsed to include contractual liability applicable to this Agreement and shall be written on a policy form coverage specifically designed to protect against acts, errors or omissions of the Consultant. "Covered Professional Services" as designated in the policy must specifically include work performed under this Agreement. The policy must "pay on behalf of" the insured and must include a provision establishing the insurer's duty to defend.

e. Minimum Policy Limits Required

(i) The following insurance limits are required for the Agreement:

	Combined Single Limit
Commercial General Liability	$1,000,000 per occurrence/ $2,000,000 aggregate for bodily injury, personal injury, and property damage
Automobile Liability	$1,000,000 combined single limit
Employer's Liability	$1,000,000 per accident or disease
Professional Liability	$1,000,000 per claim and aggregate (errors and omissions)

(ii) Defense costs shall be payable in addition to the limits.

(iii) Requirements of specific coverage or limits contained in this section are not intended as a limitation on coverage, limits, or other requirement, or a waiver of any coverage normally provided by any insurance. Any available coverage shall be provided to the parties required to be named as Additional Insured pursuant to this Agreement.

f. Evidence Required

Prior to execution of the Agreement, the Consultant shall file with the District evidence of insurance from an insurer or insurers certifying to the coverage of all insurance required herein. Such evidence shall include original copies of the ISO CG 00 01 (or insurer's equivalent) signed by the insurer's representative and Certificate of Insurance (Acord Form 25-S or equivalent), together with required endorsements. All evidence of insurance shall be signed by a properly authorized officer, agent, or qualified representative of the insurer and shall certify the names of the insured, any additional insureds, where appropriate, the type and amount of the insurance, the location and operations to which the insurance applies, and the expiration date of such insurance.

g. Policy Provisions Required

(i) Consultant shall provide the District at least thirty (30) days prior written notice of cancellation of any policy required by this Agreement, except that the Consultant shall provide at least ten (10) days prior written notice of cancellation of any such policy due to non-payment of the premium. If any of the required coverage is cancelled or expires during the term of this Agreement, the Consultant shall deliver renewal certificate(s) including the General Liability Additional Insured Endorsement to the District at least ten (10) days prior to the effective date of cancellation or expiration.

(ii) The Commercial General Liability Policy and Automobile Policy shall each contain a provision stating that Consultant's policy is primary insurance and that any insurance, self-insurance or other coverage maintained by the District or any named insureds shall not be called upon to contribute to any loss.

(iii) The retroactive date (if any) of each policy is to be no later than the effective date of this Agreement. Consultant shall maintain such coverage continuously for a period of at least three years after the completion of the work under this Agreement. Consultant shall purchase a one (1) year extended reporting period A) if the retroactive date is advanced past the effective date of this Agreement; B) if the policy is cancelled or not renewed; or C) if the policy is replaced by another claims-made policy with a retroactive date subsequent to the effective date of this Agreement.

(iv) All required insurance coverages, except for the professional liability coverage, shall contain or be endorsed to provide a waiver of subrogation in favor of the District, its officials, officers, employees, agents, and volunteers or shall specifically allow Consultant or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Consultant hereby waives its own right of recovery against District, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

(v) The limits set forth herein shall apply separately to each insured against whom claims are made or suits are brought, except with respect to the limits of liability. Further the limits set forth herein shall not be construed to relieve the Consultant from liability in excess of such coverage, nor shall it limit the Consultant's indemnification obligations to the District and shall not preclude the District from taking such other actions available to the District under other provisions of the Agreement or law.

h. Qualifying Insurers

(i) All policies required shall be issued by acceptable insurance companies, as determined by the District, which satisfy the following minimum requirements:

(1) Each such policy shall be from a company or companies with a current A.M. Best's rating of no less than A:VII and admitted to transact in the business of insurance in the State of California, or otherwise allowed to place insurance through surplus line brokers under applicable provisions of the California Insurance Code or any federal law.

i. Additional Insurance Provisions

(i) The foregoing requirements as to the types and limits of insurance coverage to be maintained by Consultant, and any approval of said insurance by the District, is not intended to and shall not in any manner limit or qualify the liabilities and obligations otherwise assumed by the Consultant pursuant to this Agreement, including but not limited to, the provisions concerning indemnification.

(ii) If at any time during the life of the Agreement, any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, District has the right but not the duty to obtain the insurance it deems necessary and any premium paid by District will be promptly reimbursed by Consultant or District will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, District may cancel this Agreement.

(iii) The District may require the Consultant to provide complete copies of all insurance policies in effect for the duration of the Project.

(iv) Neither the District nor any of its officials, officers, employees, agents or volunteers shall be personally responsible for any liability arising under or by virtue of this Agreement.

j. Pass Through Clause. Consultant agrees to ensure that its sub-consultants, sub-contractors, and any other party involved with the project who is brought onto or involved in the project by Consultant, provide the same minimum insurance coverage and endorsements required of Consultant. Consultant agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Consultant agrees that upon request, all agreements with consultants, sub-contractors, and others engaged in the project will be submitted to District for review.

15. Indemnification.

a. To the fullest extent permitted by law, Consultant shall defend (with counsel of District's choosing), indemnify and hold the District, its officials, officers, employees, volunteers, and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any acts, errors or omissions, or willful misconduct of Consultant, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Consultant's services, the Project or this Agreement, including without limitation the payment of all damages, expert witness fees and attorney's fees and other related costs and expenses except such loss or damage caused by the sole negligence or willful misconduct of the District. Consultant's obligation to indemnify shall survive expiration or termination of this Agreement and shall not be restricted to insurance proceeds, if any, received by Consultant, the District, its officials, officers, employees, agents, or volunteers.

b. If Consultant's obligation to defend, indemnify, and/or hold harmless arises out of Consultant's performance as a "design professional" (as that term is defined under Civil

Code section 2782.8), then, and only to the extent required by Civil Code section 2782.8, which is fully incorporated herein, Consultant's indemnification obligation shall be limited to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant, and upon Consultant obtaining a final adjudication by a court of competent jurisdiction, Consultant's liability for such claim, including the cost to defend, shall not exceed the Consultant's proportionate percentage of fault.

16. California Labor Code Requirements.

a. Consultant is aware of the requirements of California Labor Code Sections 1720 et seq. and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects ("Prevailing Wage Laws"). If the services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $15,000 or more for maintenance or $25,000 or more for construction, alteration, demolition, installation, or repair, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the District, its officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. It shall be mandatory upon the Consultant and all subconsultants to comply with all California Labor Code provisions, which include but are not limited to prevailing wages (Labor Code Sections 1771, 1774 and 1775), employment of apprentices (Labor Code Section 1777.5), certified payroll records (Labor Code Sections 1771.4 and 1776), hours of labor (Labor Code Sections 1813 and 1815) and debarment of contractors and subcontractors (Labor Code Section 1777.1). The requirement to submit certified payroll records directly to the Labor Commissioner under Labor Code section 1771.4 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Section 1771.4.

b. If the services are being performed as part of an applicable "public works" or "maintenance" project and if the total compensation is $15,000 or more for maintenance or $25,000 or more for construction, alteration, demolition, installation, or repair, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Consultant and all subconsultants performing such services must be registered with the Department of Industrial Relations. Consultant shall maintain registration for the duration of the Project and require the same of any subconsultants, as applicable.

c. This Agreement may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant's sole responsibility to comply with all applicable registration and labor compliance requirements. Any stop orders issued by the Department of Industrial Relations against Consultant or any subcontractor that affect Consultant's performance of services, including any delay, shall be Consultant's sole responsibility. Any delay arising out of or resulting from such stop orders shall be considered Consultant caused delay and shall not be compensable by the District. Consultant shall defend, indemnify and hold the District, its officials, officers, employees and agents free and harmless from any claim or liability arising out of stop orders issued by the Department of Industrial Relations against Consultant or any subcontractor.

17. Verification of Employment Eligibility.

By executing this Agreement, Consultant verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time, and shall require all subconsultants and sub-subconsultants to comply with the same.

18 Laws and Venue.

This Agreement shall be interpreted in accordance with the laws of the State of California. If any action is brought to interpret or enforce any term of this Agreement, the action shall be brought in a state or federal court situated in the County of Riverside, State of California.

19. Termination or Abandonment

a. District has the right to terminate or abandon any portion or all of the work under this Agreement by giving ten (10) calendar days written notice to Consultant. In such event, District shall be immediately given title and possession to all original field notes, drawings and specifications, written reports and other documents produced or developed for that portion of the work completed and/or being abandoned. District shall pay Consultant the reasonable value of services rendered for any portion of the work completed prior to termination. If said termination occurs prior to completion of any task for the Project for which a payment request has not been received, the charge for services performed during such task shall be the reasonable value of such services, based on an amount mutually agreed to by District and Consultant of the portion of such task completed but not paid prior to said termination. District shall not be liable for any costs other than the charges or portions thereof which are specified herein. Consultant shall not be entitled to payment for unperformed services, and shall not be entitled to damages or compensation for termination of work.

b. Consultant may terminate its obligation to provide further services under this Agreement upon thirty (30) calendar days' written notice to District only in the event of substantial failure by District to perform in accordance with the terms of this Agreement through no fault of Consultant.

20. Attorneys' Fees.

In the event that litigation is brought by any Party in connection with this Agreement, the prevailing Party shall be entitled to recover from the opposing Party all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing Party in the exercise of any of its rights or remedies hereunder or the enforcement of any of the terms, conditions, or provisions hereof. The costs, salary, and expenses of the City Attorney's Office in enforcing this Agreement on behalf of the District shall be considered as "attorneys' fees" for the purposes of this Agreement.

21. Responsibility for Errors.

Consultant shall be responsible for its work and results under this Agreement. Consultant, when requested, shall furnish clarification and/or explanation as may be required by the District's representative, regarding any services rendered under this Agreement at no additional cost to District. In the event that an error or omission attributable to Consultant's professional services

occurs, Consultant shall, at no cost to District, provide all other services necessary to rectify and correct the matter to the sole satisfaction of the District and to participate in any meeting required with regard to the correction.

22. Prohibited Employment.

Consultant shall not employ any current employee of District to perform the work under this Agreement while this Agreement is in effect.

23. Documents. Except as otherwise provided in "Termination or Abandonment," above, all original field notes, written reports, Drawings and Specifications and other documents, produced or developed for the Project shall, upon payment in full for the services described in this Agreement, be furnished to and become the property of the District.

24. Organization

Consultant shall assign Jeff MacLean as Project Manager. The Project Manager shall not be removed from the Project or reassigned without the prior written consent of the District.

25. Limitation of Agreement.

This Agreement is limited to and includes only the work included in the Project described above.

26. Notice

Any notice or instrument required to be given or delivered by this Agreement may be given or delivered by depositing the same in any United States Post Office, certified mail, return receipt requested, postage prepaid, addressed to:

DISTRICT:	CONSULTANT:
Fire Access Maintenance District No. 1 of the City of Indian Wells	PureDMS Inc., Pure Community Systems
44-950 Eldorado Drive	7 Tortosa Drive
Indian Wells, California 92210	Rancho Mirage, CA 92270
Attn: District Manager	Attn: Jeff MacLean

and shall be effective upon receipt thereof.

27. Third Party Rights

Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than the District and the Consultant.

28. Equal Opportunity Employment.

Consultant represents that it is an equal opportunity employer and that it shall not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, sex, age or other interests protected by the State or Federal Constitutions. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination.

29. Entire Agreement

This Agreement, with its exhibits, represents the entire understanding of District and Consultant as to those matters contained herein, and supersedes and cancels any prior or contemporaneous oral or written understanding, promises or representations with respect to those matters covered hereunder. Each party acknowledges that no representations, inducements, promises or agreements have been made by any person which are not incorporated herein, and that any other agreements shall be void. This Agreement may not be modified or altered except in writing signed by both Parties hereto. This is an integrated Agreement.

30. Severability

If any provision of this Agreement is determined by a court of competent jurisdiction to be invalid, illegal, or unenforceable for any reason, such determination shall not affect the validity or enforceability of the remaining terms and provisions hereof or of the offending provision in any other circumstance, and the remaining provisions of this Agreement shall remain in full force and effect.

31. Successors and Assigns

This Agreement shall be binding upon and shall inure to the benefit of the successors in interest, executors, administrators and assigns of each party to this Agreement. However, Consultant shall not assign or transfer by operation of law or otherwise any or all of its rights, burdens, duties or obligations without the prior written consent of District. Any attempted assignment without such consent shall be invalid and void.

32. Non-Waiver

The delay or failure of either Party at any time to require performance or compliance by the other Party of any of its obligations or agreements shall in no way be deemed a waiver of those rights to require such performance or compliance. No waiver of any provision of this Agreement shall be effective unless in writing and signed by a duly authorized representative of the Party against whom enforcement of a waiver is sought. The waiver of any right or remedy with respect to any occurrence or event shall not be deemed a waiver of any right or remedy with respect to any other occurrence or event, nor shall any waiver constitute a continuing waiver.

33. Time of Essence

Time is of the essence for each and every provision of this Agreement.

34. Headings.

Paragraphs and subparagraph headings contained in this Agreement are included solely for convenience and are not intended to modify, explain, or to be a full or accurate description of the content thereof and shall not in any way affect the meaning or interpretation of this Agreement.

35. Amendments.

Only a writing executed by all of the Parties hereto or their respective successors and assigns may amend this Agreement.

36. District's Right to Employ Other Consultants

District reserves its right to employ other consultants, including engineers, in connection with this Project or other projects.

37. Prohibited Interests

Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, District shall have the right to rescind this Agreement without liability. For the term of this Agreement, no director, official, officer or employee of District, during the term of his or her service with District, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

38. Counterparts.

This Agreement may be executed in one or more counterparts, each of which shall be deemed an original. All counterparts shall be construed together and shall constitute one single Agreement.

39. Authority.

The persons executing this Agreement on behalf of the Parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said Parties and that by doing so, the Parties hereto are formally bound to the provisions of this Agreement.

When funding for the services is provided, in whole or in part, by an agency of the federal government, Consultant shall also fully and adequately comply with the provisions included in Exhibit "D" (Federal Requirements) attached hereto and incorporated herein by reference ("Federal Requirements"). With respect to any conflict between such Federal Requirements and the terms of this Agreement and/or the provisions of state law, the more stringent requirement shall control.

SIGNATURE PAGE FOR PROFESSIONAL SERVICES AGREEMENT BETWEEN THE FIRE ACCESS MAINTENANCE DISTRICT NO. 1 OF THE CITY OF INDIAN WELLS AND PUREDMS INC., PURE COMMUNITY SERVICES

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first written above.

FIRE ACCESS MAINTENANCE DISTRICT NO. 1 OF THE CITY OF INDIAN WELLS

By: _____
Scott Matas
District Manager

By: _____
KEN SEUMALO
PUBLIC WORKS DIRECTOR

By: _____
CHRISTOPHER FREELAND
CITY MANAGER

ATTEST:

By: _____
ANGELICA AVILA
CITY CLERK

APPROVED AS TO FORM:

By: _____FOR
BEST, BEST & KRIEGER, LLP
DISTRICT LEGAL COUNSEL

PureDMS Inc., Pure Community Services

By: _____

Its: _____

Printed Name:_____

By: _____

Its: _____

Printed Name:_____

EXHIBIT A

Scope of Services

Maintenance of the Fire Access Maintenance District No. 1 website (http://iwccfamd.net) with monthly updates and necessary website maintenance/ hosting services.

EXHIBIT B

Schedule of Charges/Payments

Monthly Charge of $125.00 that will be billed annually on July 1st of each fiscal year for a total of $1,500.00. Extra services will be invoiced separately for an amount not to exceed $1,500.00 in a fiscal year.

EXHIBIT C

Activity Schedule

Monthly updates to website as requested by the district manager.

Examples:
Home page ticker updates, board packet and minutes posted to website, informational updates, etc.

FAMD #1

INDIAN WELLS COUNTRY CLUB COMMUNITY

SECURITY REPORT

Paul A. Stotesbury
Site Security Director
February, 2024

February 4 - Club Gate, person making U-turn drove into planter, minimal damage, report and pictures to DRM.

February 15 - Casa de Mariposa, H/O reported runaway juvenile, patrol started search but mother called to report juvenile returned.

February 23 - Iroquois, the Annual Mid-Century Modern Tour once again toured some of our properties. Tour was on Iroquois and ended with lunch at the Cove Bar and Grill.

FIRE DEPARTMENT/ PARAMEDICS

RESPONSES - 8 TRANSPORTS – 4

RSO

ROUTINE PATROL – 8 CALLS FOR SERVICE – 4

OPEN GARAGE DOOR – 51 OPEN OTHER DOORS – 3

TRANSPONDERS SOLD – 189

Indian Wells Country Club FAMD #1

Security Staffing Report

February, 2024

	Employee Name	Length of Service at Allied Universal in Months	Length of Service at IWCCC in Months	Position	Scheduled Work Days	Scheduled Work Hours	Total Scheduled Hours/Day	Total Scheduled Hours/Week
1	Bonner, Betty	19	19	Security Supervisor	Tues/Sat	10pm-6am	8	40
2	Cabanilla, Danny	53	53	Security Officer/Supervisor	Fri/Mon	2pm - 10pm	8	32
3	Casarez, Jose	74	71	Security Officer	Sun/Thurs	2pm-10pm	8	40
4	Gray, Ken	17	17	Security Officer	Mon/Tues	2pm-10pm	8	16
5	Gutierrez, Arturo	1	1	Security Officer	Wed/Sun	2pm-10pm	8	40
6	Hertwig, Robert	12	12	Security Officer	Thurs/Sun	10pm-6am	8	40
7	Hosamane, Mahinder	125	175	Security Supervisor	Sun/Thurs	10pm-6am	8	40
8	Lara, Marvin	126	123	Security Senior Supervisor	Mon/Sat	6am - 2pm	8	40
9	McGarty, Patrick	6	6	Security Officer	Sat-Wed	Varies	8	40
10	Pennington, Sandra	19	19	Security Officer	Fri/Mon	10pm-6am	8	32
11	Penny, Max	24	24	Security Officer	Tues/Sat	2pm-10pm	8	40
12	Perea, Richard	4	4	Security Officer	Sat/Wed	Varies	8	40
13	Perez, Helen	2	2	Security Officer	Wed/Sun	2pm-10pm	8	40
14	Rios, Albert	17	17	Security Officer	Sun-Thurs	6am-2pm	8	40
15	Sandoval, Andrea	82	60	Security Officer	Sat-Wed	6am-2pm	8	32
16	Wright, Shawn	11	11	Security Supervisor	Tues/Sat	10pm-6am	8	40
17								
18	Stotesbury, Paul	102	66	Site Security Supervisor	Mon- Fri	Varies	8	40
19	Part Time	4	4	Security Officer		6am-2pm	8	16
	TOTALS	**698**	**684**					**648**
	AVERAGES	**37.78**	**38**					

Change **Change**

Stats for : 2024

Event	Jan.	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Access Denied	0	0											0
Alarm Checks-Security	4	1											5
Animal Control on site	0	1											1
Animal Issues	1	0											1
Burglaries	0	0											0
Thefts	1	0											1
Garage Doors Open	43	51											94
A Shift up to 1400 hrs	0	0											0
B Shift up to 2200 hrs	42	49											91
C shift after 2200 hrs	1	2											3
Doors Open (Other)	0	3											3
Golf Cart Issues	0	0											0
Homeowner Assist/Welfare Check	9	3											12
Landscape/Light Issues	0	0											0
Medical Response / Fire Dept.	9	8											17
Noise Issues	2	2											4
Other - Domestic Issue	0	0											0
Parking Issues	1	0											1
Public Utility Issue	0	0											0
Process Servers	0	5											5
Property Issues/Damage	4	1											5
Realtor Issues	0	0											0
Sheriff on Site	17	12											29
Alarm Response/Call In	6	4											10
Routine Patrol	11	8											19
Suspicious Events	2	0											2
Traffic/Street Issues	0	0											0
Vandalism	0	0											0
Vendor Issues	0	0											0
Water Issues	3	2											5

Speed Trailer Data

February, 2024

SPEED TRAILER DEPLOYMENT LOCATIONS

Day	Date	Location	0-20 ●	21-25 ◊	26-30 □	31-35 Δ	36-40 *	41-45 x	46-50 *	51+ ●	Total	Time
Fri	SUN	E/B Iroquois										6am-8pm
Sat	MON	S/B Manitou										7am-8pm
Sun	TUE	S/B Club	Speed trailer is functional and deployed					daily				7am-8pm
Mon	WED	NB Manitou										7am-8pm
Tues	THUR	S/B Club			Limited use due to patrol vehicle in shop							6am-8pm
Wed	FRI	W/B Iroquois		Trailer down awaiting electrician								7am-8pm
Thurs	SAT	N/B Manitou										7am-8pm
Fri	SUN	E/B Iroquois										7am-8pm
Sat	MON	S/B Manitou										6am-9pm
Sun	TUE	S/B Club										7am-8pm
Mon	WED	NB Manitou										6am-8pm
Tues	THUR	S/B Club										7am-8pm
Wed	FRI	W/B Iroquois										
Thurs	SAT	N/B Manitou										7am-9pm
Fri	SUN	E/B Iroquois										7am-8pm
Sat												
Sun												
Mon												
Tues												
Wed												
Thurs												
Fri												
Sat												
Sun												
Mon												
Tues												
Wed												
Thurs												
Fri												
Sat												
Sun		Totals										
Totals	App.	%										
%												

STAFF REPORT

DATE: March 14, 2024

TO: Honorable FAMD Board Members

FROM: FAMD District Manager

SUBJECT: RFP Pavement Management Plan 2026-2031

SUMMARY:

The District Manager was directed to send out a request for proposals (RFPs) for an updated Pavement Management Plan (PMP). The district manager posted the RFP on PlanIT on January 18, 2024, with a deadline for interested parties to return the RFP by February 22, 2024. Attached is the five qualifying RFPs for your review along with a spreadsheet comparing the cost of each firm.

FISCAL IMPACT:

TBD – Budget Will support up to $36,000.00.

RECOMMENDATIONS

- Review the RFP's and determine if the cost of the most responsive bidder will accomplish the concerns of the FAMD.
- Award the proposal to the most responsive proposal and direct the district manager and the City of Indian Wells finance department to fund the approved proposal through GL 531000 Professional Services

2026-2031 Pavemnet Management Plan (Delivered March 2024)							
Compnay	Contact	Admin	Scope of Work	Report	Total	Options	Total
Bucknam Infrastructure Group, Inc.	Peter Bucknam	$ 2,768.00	$ 6,739.00	$ 4,165.00	$ 13,672.00	$ 2,200.00	$ 15,872.00
Kimley Horm	Timothy Miller	$ 1,500.00	$ 13,000.00	$ 5,450.00	$ 19,950.00	$ 5,000.00	$ 24,950.00
HR Green	Timothy Jonasson	$ -	$ 28,000.00	$ 3,500.00	$ 31,500.00	$ 15,000.00	$ 46,500.00
GMU	Roger Schlierkamp	$ -	$ 24,900.00	$ -	$ 24,900.00	$ -	$ 24,900.00
IMS	Jim Tourek	$ 5,800.00	$ 10,925.00	$ 5,150.00	$ 21,875.00	$ -	$ 21,875.00

PROPOSAL FOR PAVEMENT MANAGEMENT PLAN 2026-2031

Indian Wells CC – FAMD #1
February 22, 2024

Submitted by:
Bucknam Infrastructure Group, Inc.

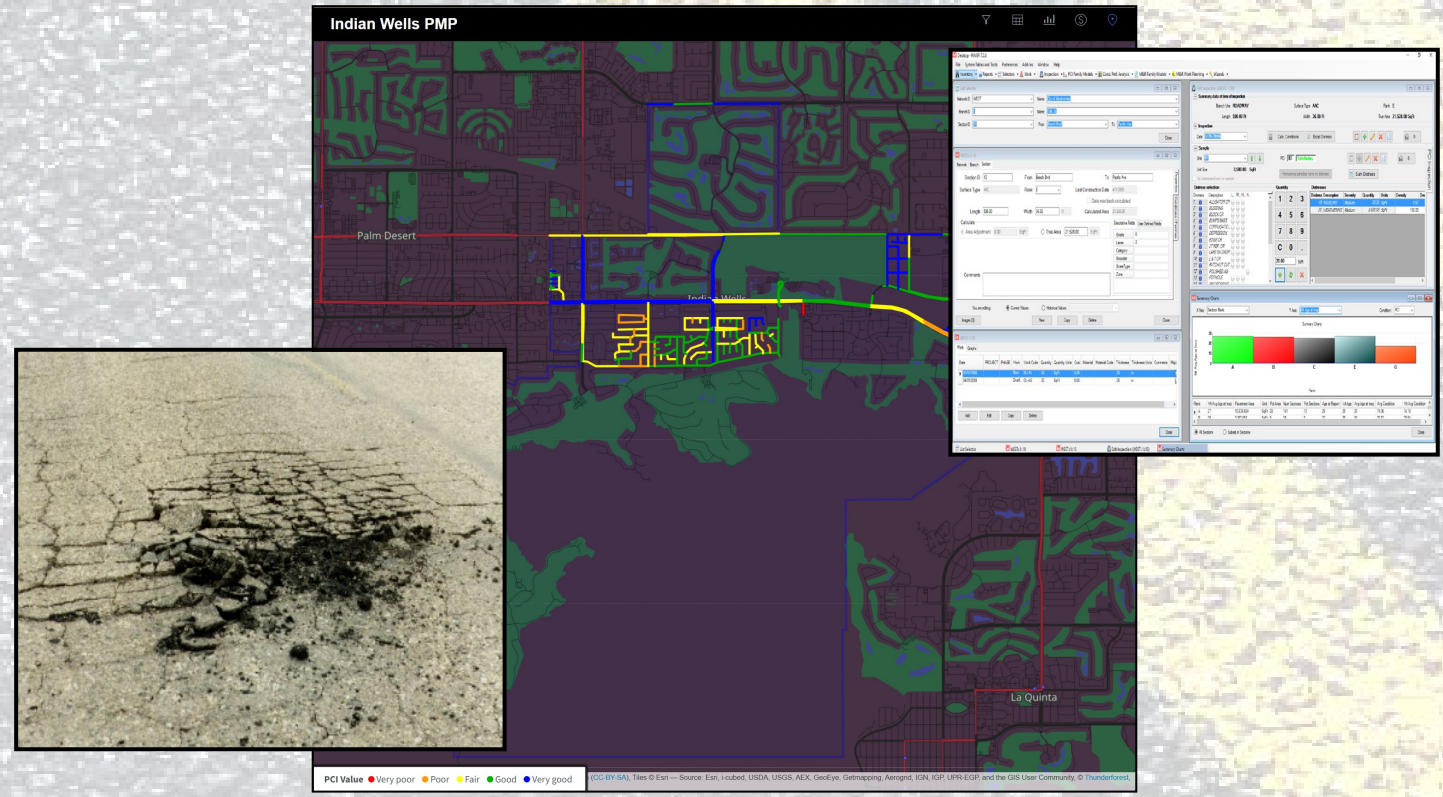


Table of Contents

Section **Page**

February 22, 2024

Mr. Scott Matas
District Manager
Indians Wells Country Club-FAMD #1
42635 Melanie Place, Ste 103
Palm Desert, CA 92211

Subject: Proposal for Pavement Management Plan 2026-2031

Dear Mr. Matas,

It is our pleasure to submit our proposal to assist the Fire Access Maintenance District/Indian Wells County Club (FAMD-IWCC) for the proactive management of your Pavement Management Program (PMP). With the District seeking to move toward stronger infrastructure management methodologies through 2024 pavement inspections, CIP budgetary reporting / scheduling, and GIS management. *Bucknam Infrastructure Group, Inc.* has identified a proactive and cost efficient method to assist the FAMD-IWCC in implementing a successful PMP. Our team will focus our long-term PMP knowledge, extensive Riverside County experience and GIS/GPS technologies to optimize your maintenance/rehabilitation budgets.

Our firm is unique in that we provide:

- Relevant and accurate PMP services based on our ongoing work with numerous Inland Empire, Orange, Los Angeles County and San Diego local agencies such as:
  - 20 Inland Empire / San Diego local agencies

San Diego, San Bernardino, Riverside County PMP Clients		
Vista	Solana Beach	Santee
Barstow	Rialto	Ontario
Rancho La Quinta HOA	Hemet	Lake Elsinore
Indian Wells	Menifee	Cathedral City
National City	Palm Springs	Redlands
Murrieta	Menifee	Coronado
Palm Desert	Big Bear Lake	

  - Recent OCTA Pavement Preservation Program project where Bucknam assessed and generated a countywide 10-yr economic forecast for all 35 Orange County local agencies (StreetSaver / MicroPAVER assessments)
  - 21 Orange County local agencies; 60% of Orange County local agencies
  - 32 Los Angeles County local agencies; and
  - Army Corps of Engineers ASTM D6433 compliant surveying, reporting and pavement analysis on an annual basis;

BUCKNAM
INFRASTRUCTURE GROUP, INC
3548 Seagate Way, Suite 230
Oceanside, CA 92056
T: (760) 216-6529
www.bucknam-inc.com

- Our project manager has worked within the SoCal Pavement Management industry for over twenty-five (25) years and has worked extensively with StreetSaver PMP software through turn-key data conversion projects to long-term, proactive pavement CIP scheduling that relies on accurate and cost-efficient bid documentation;

- Cost effective management methodologies, from the project kickoff through final reporting, gained through our Project Manager's experience and use of Bucknam's MyRoads® dynamic PMP-GIS link;

- As Project Manager, my goal is not just to meet the requirements of this project but establish a living document that will be used throughout the term of the CIP as well as implement achievable long-term infrastructure management goals in coordination with District schedules.

By selecting *Bucknam Infrastructure Group, Inc.*, the FAMD/IWCC will receive a strong, knowledgeable, innovative, and communicative team with the experience to update a cost-effective pavement management program. Our handpicked pavement management professionals are committed to delivering quality services to the District. We have already scheduled time for your project and eagerly await our kick-off meeting with District staff and you.

Respectfully submitted,

Bucknam Infrastructure Group, Inc.

Peter J. Bucknam
President/Project Manager

Bucknam Firm Profile and Qualifications

Bucknam Infrastructure Group, Inc. (est. 2011, S-Corporation) has a full-service office in Southern California and 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.

BUCKNAM INFRASTRUCTURE GROUP, INC
3548 Seagate Way, Suite 230
Oceanside, CA 92056
T: (760) 216-6529
www.bucknam-inc.com

Our full-service Infrastructure Management - GIS Division provides comprehensive engineering and infrastructure/GIS management services, as well as database management, pavement / ROW field inspection services, and GIS automation and management.

Our extensive professional service offerings include:

Regarding Pavement Management Programs, our firm is currently assisting 70+ local agencies comply with Riverside, San Bernardino, LA, Orange and SD County's pavement reporting requirements.

Pavement-CIP Management (PMP)	Public Works Management
Pavement Data Conversion	ADA Self-Evaluation/Transition Plannning
Pavement Condition Surveys	GASB 34 Compliance/Reporting
PMP Assessments/Software	Intranet GIS Implementation
PMP/GIS Deliverables	Contract GIS Services
ArcGIS Online Apps/Tool Development	Traffic Control Device/Sign Inventory
Public Right-of-Way Inventories	Maintenance Management Programs
PMP OCTA-Compliance Reporting	Record Retention/Scanning Services
Digital Roadway Imaging/Survey	Utility GIS Services

Regarding Pavement Management Programs, our firm is currently assisting 70+ SoCal local agencies complying 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, civil engineering, and GIS services to public agencies.

We look forward to working with you on your project. Our handpicked management professionals are committed to delivering quality services to the District. **Our office is located in Oceanside, CA 3548 Seagate Way, Suite 230 (12 employees).**

Delineation of Bucknam Infrastructure Group's Strengths

As Bucknam approaches twenty-six (26) 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 Riverside 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:

- **Currently contracting with the City of Indian Wells for Pavement Management Services (2021 thru 2026)**
- **Providing PMP and other streamlined asset management services to ten (10) local agencies and HOA's within the Riverside County region;**
- Currently, providing PMP services to 31 of the 88 Los Angeles County local agencies in the past two years (34%);
- Currently providing PMP services for 21 of the 35 Orange County local agencies in the past two years (60%);
- Bucknam now implements Cloud-based Artificial Intelligence (AI) Learning Technology to calculate pavement section AC/PCC True Area SF quantities;
- Implementation and utilization of IWCC-FAMD #1 MyRoads® – PMP mapping (web-based access/use); requires no GIS software to view your PMP online (**See Task 4.7 within Scope of Work**);
- Staff / Firm is certified through OCTA and MTC for use and management of MicroPAVER / StreetSaver
    - Bucknam is ASTM D6433 certified through OCTA until June, 2025 for PMP services/inspections 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 one hour to respond to IWCC-FAMD #1's requests and needs;
- Proven Riverside County PMP economic ROI regarding long-term Pavement CIP's recommendations, implementation, maintenance applications and increased PCI's

Relevant PMP Project Experience

The following project experience presents our description of work, its relevance in completing similar projects for numerous other agencies, Measure A, Measure I, METRO compliance, OCTA Measure M & M2 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 FAMD-IWCC. This includes over 750+ PMP projects covering turn-key projects, simply training of District staff with pavement management methods, financial strategies and Capital Improvement Programs.

Mr. Steve Bucknam, P.E. (Principal) and Mr. Peter Bucknam (PM), have worked with fifteen (15) Inland Empire County cities regarding pavement management projects, over twenty (20) the cities within Orange County, 31 Los Angeles County local agencies, and eight (8) San Diego

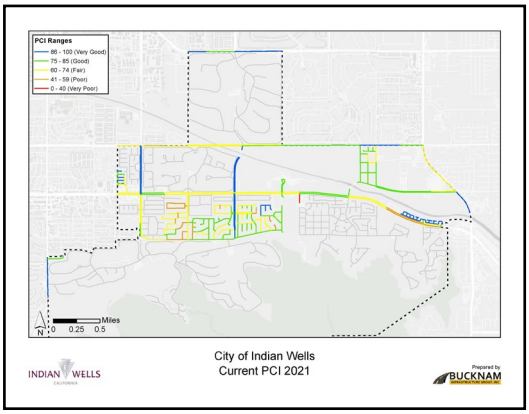
County local agencies. Over the past twenty-six years, we have worked on numerous projects similar to IWCC-FAMD #1's current PMP project. We have listed five (5) similar "long-term" pavement management projects that cover the same task descriptions as listed in your RFP.

1. FY2021/26 – City of Indian Wells, "Citywide Pavement Management Assessment & Program Update-GIS"
2. FY 2016/24 – Rancho La Quinta, "Community Pavement Management Program-GIS
3. FY 2001/25 – City of Ontario, "Citywide Pavement Management Program-GIS"
4. FY 2013/25 – City of Lake Elsinore, "Citywide Pavement Management Program-GIS"
5. FY 1998/24 – City of Fountain Valley, "Citywide PMP, GIS Enterprise Implementation"

Bucknam Infrastructure Group, Inc.

Citywide Pavement Management Assessment & Program Update
City of Indian Wells (2021-2026)

Mrs. Tanya Williams, Management Analyst II – twilliams@indianwells.com
44-950 Eldorado Drive, Indian Wells, CA 92210



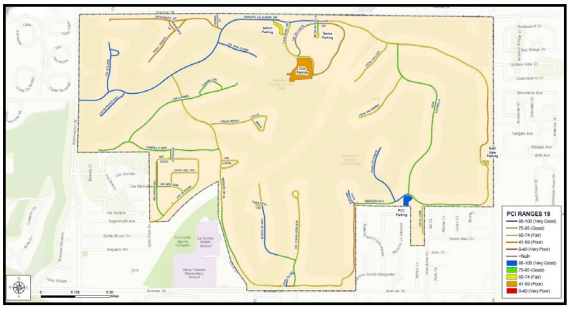
In 2021, Bucknam was contracted to perform a citywide pavement management assessment and program update for the City of Indian Wells. This project consisted of the review of all available pertinent records in the preparation of the pavement management system update. From there, approximately 28 miles of pavement were surveyed to assess the condition and establish an updated PCI value for all sections. Our Project Manager, Mr. Peter Bucknam, developed repair recommendations for each section. Including the type of repair and all costs associated with the repair improvement program. Additionally, Bucknam prepared recommendations for future CIP program projects with sound and cost-conscious prioritizations. The implementation of MicroPAVER was a turn-key effort in establishing a foundation for the City's PMP. We are now support City staff with annual PMP support services through FY 2026.

Citywide Pavement Management Program
Master Association for Rancho La Quinta (2016-2024)

Mrs. Nena Rutherford, Association General Manager - (760) 777-8807
79-285 Rancho La Quinta Drive, La Quinta, CA 92253

In 2016, Bucknam was contracted to perform a community-wide pavement management inventory for the Master Association for Rancho La Quinta. This project consisted of a complete turn-key effort in "re-segmenting" the community's PMP network, converting previous PCI inspection data, performing an ASTM D6433 based survey, implementation of MicroPAVER and

GIS integration. Bucknam utilized our conventional walking survey methodology to collect all necessary street conditional data and completed our PCI condition assessments.



In working with Public Services staff Bucknam was able to quickly and accurately implement a pavement management program that was well-received by staff.

Additionally, our services included a complete evaluation of the City's PMP budget, short-term and long-term budgetary analysis (Actual, Maintain and Recommended budgets) and GIS services that linked the City's MicroPAVER database to the City's GIS enterprise.

Since the project completed Bucknam has provided technical and management support services to the PMP. Bucknam was selected in 2020 to perform another citywide PMP update. Mr. Peter Bucknam serves as Project Manager for Norwalk.

Citywide Pavement Management Program
City of Ontario (2001-2025)

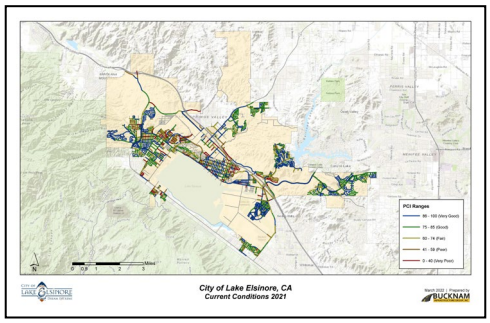
Mrs. Tricia Espinoza, PE, QSD/QSP, Public Works Project Manager - (909) 395-2188
303 East "B" Street, Ontario, CA 91764; tespinoza@ontarioca.gov

Our Project Manager, Mr. Peter Bucknam, has worked with the City of Ontario and their Pavement Management Program since 2001! Through thirteen (13) unique PMP updates, several City project managers Bucknam has provided solid, accurate and proactive PMP services to the City. Since 2008, Bucknam has been awarded several three-year PMP contracts that have allowed our team to increase the City's PCI from the 50's to the 80's.

On an annual basis, Bucknam provides identical PMP services that are listed within your agency's RFP. This includes PMP software and work history updates, PCI inspections, CIP and Operations & Maintenance budgetary analysis / reporting and GIS services.

Citywide Pavement Management Program-GIS
City of Lake Elsinore (2013-2025)

Mr. Carlos Norvani, LEED AP, Capital Improvement Projects Engineer - (951) 674-3124
521 N. Langstaff Street, Lake Elsinore, CA 92530 (cnorvani@Lake-Elsinore.org)



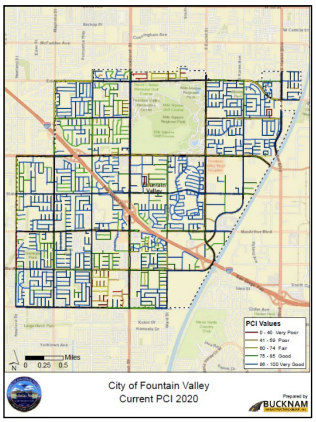
Since 2013 Bucknam has been contracted to perform a citywide pavement management inventories/analysis for the City of Lake Elsinore. Our initial project consisted of a complete turn-key effort in "re-segmenting" the City's PMP network, converting previous PCI inspection data, performing an ASTM D6433-18 based survey, implementation of MicroPAVER and PMP-GIS integration.

Additionally, our services included a complete evaluation of the City's PMP budget, short-term and long-term budgetary analysis (Actual, Maintain and Recommended budgets) and GIS services that linked the City's MicroPAVER database to the City's GIS enterprise**.**

Since the project completed Bucknam has provided annual PMP support services to the City (FY 2023 through 2025). Mr. Peter Bucknam serves as PMP Project Manager for Lake Elsinore.

Citywide Pavement Management Program – GIS Enterprise
City of Fountain Valley (1998-2024)

Mr. Temo Galvez, Deputy Director of Public Works – (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 2022 annual update for MPAH for Measure M2 compliance. Over the twenty years Mr. Bucknam has overseen twelve 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 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 2024.

Project Team

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

- Our experience of managing pavement projects over the past twenty-six years;
- Assisting cities comply with County PMP Propositions/Measures
- Implementing StreetSaver/MicroPAVER throughout Southern California
- Extensive Riverside, Los Angeles, Orange, San Diego and Inland Empire PMP project management experience;
- Our understanding of public works projects from the "district/city" side through City Engineer and Public Works Director experience;
- Implementing a realistic, proactive and sustainable PMP methodology that matches your agencies needs and goals.

Bucknam will continue to bring our extensive experience to the FAMD #1-IWCC by building upon our knowledge and understanding of your PMP goals. Mr. Bucknam's pavement team includes eleven (11) dedicated, qualified managers and field technicians that have served under his management for over twenty-six years on PMP projects. His team of inspectors will update your PMP through sound Army Corps of Engineers – ASTM inspection methodologies. Mr. Bucknam's experience covers the management and implementation of infrastructure management programs that exceeds 58,900 miles of pavement for more than 75 cities and 750+ PMP projects.

Bucknam – Key Project Team / Experience

PETER BUCKNAM, Project Manager, has managed 750+ pavement management projects over the past 26 years in the Southern California region and will be the Project Manager for IWCC-FAMD #1's PMP project. Peter is committed to the project from the receipt of the notice-to-proceed through completion.

As the District 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.

STEVE BUCKNAM, P.E., Principal-in-Charge, will be responsible for the overall performance of the project and will 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 48 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.

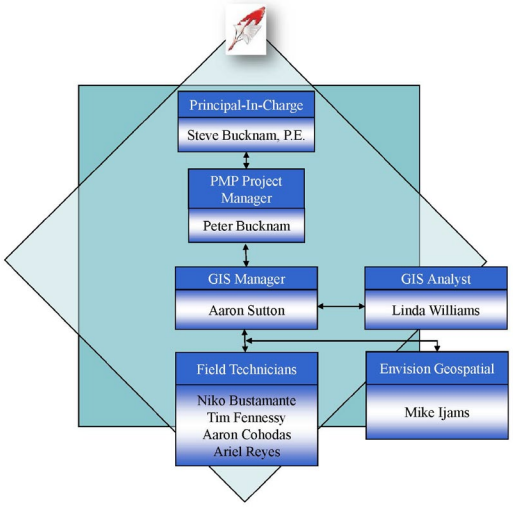
AARON SUTTON, GIS Manager, will oversee all GIS and PMS data migration prior and during the project. He drives all GIS creation, PMS mapping, editing and deliverables for the project and is our key staffer for the ArcGIS Online web-hosting services that we provide. Mr. Sutton has been involved with over 65 pavement management projects within San Bernardino, Riverside, LA, San Diego and Orange counties.

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. Mr. Cohodas has been involved with over 70 pavement management projects and brings his wealth of PMP software, GIS and inspection experience to this project. **Aaron is a certified ASTM D6433-20 inspector.**

NIKO BUSTAMANTE, 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. Bustamante has been involved with over 45 pavement management projects and brings his wealth of PMP software, GIS and inspection experience to this project. **Niko is a certified OCTA/ASTM D6433 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. He has been involved with over 60 pavement management projects and brings his wealth of PMP software, GIS and inspection experience to this project. **Tim is a certified OCTA/ASTM D6433 inspector.**

Organizational Chart



Team Resumes can be found in the following pages.

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 2023)
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 infrastructure asset management and Geographic Information Systems. Mr. Bucknam has managed a wide range of Pavement Management infrastructure project tasks including the collection and input of PMP - ROW conditional 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 750+ PMP projects throughout San Diego, Riverside, San Bernardino, Orange and Los Angeles counties. He has worked with over 15 San Diego/Inland Empire County cities, 34 Los Angeles cities and he is currently working with 21 of the 35 Orange County agencies regarding Measure M2 StreetSaver/MicroPAVER 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 700+ infrastructure projects in the past twenty-five years, Mr. Bucknam has used a diverse amount of software to assist local agencies implement infrastructure management programs and GIS Enterprises. These programs include MicroPAVER, MTC StreetSaver, Zoom'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 PMP 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 (1997-2024)

- 2024 Pavement Management Program, City of Westminster
- 2024 Pavement Management Program, City of Norwalk
- 2024 Pavement Management Program, City of Buena Park
- 2024 Pavement Management Program, City of Duarte
- 2023 Pavement Management Program, City of Ontario
- 2023 Pavement Management Program, City of Santa Ana
- 2023 Pavement Management Program, City of Orange
- 2023 Pavement Management Program, City of RSM
- 2023 Pavement Management Program, City of Laguna Hills
- 2023 Pavement Management Program, City of Del Mar
- 2023-24 GIS Enterprise Support Services, City of Fountain Valley
- 2023 Pavement Management Program, City of Fountain Valley
- 2023 Pavement Management Program, City of Compton
- 2023 Pavement Management Program, City of Lomita
- 2023 Pavement Management Program, City of Coronado
- 2023 Pavement Management Program, Orange County Water District
- 2023 Pavement Management Program, City of Huntington Beach
- 2023 Pavement Management Program, City of Lake Elsinore
- 2023 Pavement Management Program, City of Placentia
- 2023 Sign Management Program, City of Placentia
- 2023 Pavement Management Program, City of Norwalk
- 2023 PMP Program Management, Inland Empire Utilities Agency
- 2021-23 Pavement Preservation Plan, OCTA
- 2023 Pavement Management Program, City of Fullerton
- 2023 Pavement Management Program, City of Vista
- 2023 Sidewalk Management Program, City of Fullerton
- 2023 Sign Inventory Program, City of Big Bear Lake
- 2023 GIS Enterprise Support Services, City of South Pasadena
- 2023 Pavement Management Program, City of South Pasadena
- 2023 GIS Support Services – Storm Drain Pilot, City of Fullerton
- 2022-27 Pavement Management Program, City of Fullerton
- 2023-24 GIS Enterprise Support Services, City of Alhambra
- 2022-23 GIS Enterprise Support Services, City of Big Bear Lake
- 2022-23 GIS Enterprise Support Services, City of Duarte
- 2021-22 GIS Enterprise Support Services, City of Lawndale
- 2023 Infrastructure Management Program, City of Vista
- 2023 Pavement Management Program, City of Alhambra
- 2023 Pavement Management Program, City of Santa Ana
- 2023 Pavement Management Program, City of South El Monte
- 2023 Pavement Management Program, City of Rosemead
- 2023 Sidewalk Management Program, City of Rosemead
- 2023 Pavement Management Program, City of West Covina
- 2023 Pavement Management Program, City of San Juan Capo
- 2023 Sidewalk-ROW Management Program, City of Lakewood
- 2023 Pavement Management Program, City of Sierra Madre

- 2023 Alley Pavement Management Program, City of Monterey Park
- 2023 Sidewalk Management Program Pilot, City of Ontario
- 2023 Pavement Management Program, City of La Verne
- 2023 Pavement Management Program, City of Tustin
- 2023 Sidewalk Management Program, City of Tustin
- 2023 Pavement Management Program, City of Cypress
- 2023 Pavement Management Program, City of Stanton
- 2023 Pavement Management Program, City of Brea
- 2023 Pavement Management Program, City of La Habra
- 2023 Pavement Management Program, City of Ontario
- 2023 Pavement Management Program, City of Commerce
- 2023 Pavement Management Program, City of Lynwood
- 2022 Pavement Management Program, City of National City
- 2022 Pavement Management Program, City of Covina
- 2022 Pavement Management Program, City of La Habra Heights
- 2022 Pavement Management Program, City of Monrovia
- 2022 Pavement Management Program, City of Laguna Hills
- 2022 Pavement Management Program, City of Big Bear Lake
- 2022 Pavement Management Program, City of Rialto
- 2022 Pavement Management Program, City of Vista
- 2022 Pavement Management Program, City of Rancho Santa Margarita
- 2022 Pavement Management Program, City of El Segundo
- 2022 Sign Inventory Program, City of Norwalk
- 2022 Pavement Management Program, City of La Palma
- 2022 Pavement Management Program, City of Laguna Woods
- 2022 Pavement Management Program, City of Culver City
- 2022 Pavement Management Program, City of Pomona
- 2022 Pavement Management Program, City of Westminster
- 2022 Sign Inventory Program, City of Tustin
- 2022 Pavement Management Program, City of Placentia
- 2022 Pavement Management Program, City of Buena Park
- 2022 Pavement Management Program, City of Huntington Beach
- 2022 Pavement Management Program, City of Rancho Palos Verdes
- 2022 Pavement Management Program, City of Laguna Beach
- 2022 Pavement Management Program, City of Signal Hill
- 2022 Pavement Management Program, City of Seal Beach
- 2022 Pavement Management Program, City of Inland Empire Utilities Agency
- 2022 Pavement Management Program, City of Costa Mesa
- 2021 Pavement Management Program, City of Monterey Park
- 2021 Pavement Management Program, City of Santa Ana
- 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 Pavement Management Program, City of La Habra
- 2021 Pavement Management Program, City of La Habra

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 ISTEA 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:

- 2023 Pavement Management Program, City of Santa Ana
- 2023 Pavement Management Program, City of Orange
- 2023 Pavement Management Program, City of RSM
- 2023 Pavement Management Program, City of Laguna Hills
- 2023 Pavement Management Program, City of Del Mar
- 2023-24 GIS Enterprise Support Services, City of Fountain Valley
- 2023 Pavement Management Program, City of Fountain Valley
- 2023 Pavement Management Program, City of Compton
- 2023 Pavement Management Program, City of Lomita
- 2023 Pavement Management Program, City of Coronado
- 2023 Pavement Management Program, Orange County Water District
- 2023 Pavement Management Program, City of Huntington Beach
- 2023 Pavement Management Program, City of Lake Elsinore
- 2023 Pavement Management Program, City of Placentia
- 2023 Sign Management Program, City of Placentia
- 2023 Pavement Management Program, City of Norwalk
- 2023 PMP Program Management, Inland Empire Utilities Agency
- 2021-23 Pavement Preservation Plan, OCTA
- 2023 Pavement Management Program, City of Fullerton
- 2023 Pavement Management Program, City of Vista
- 2023 Sidewalk Management Program, City of Fullerton
- 2022-26 Pavement Management Program, City of Indian Wells
- 2022 Pavement Management Program, City of Ontario
- 2022 Pavement Management Program, City of Lakewood
- 2022 Pavement Management Program, City of Commerce
- 2022 Pavement Management Program, City of Lynwood
- 2022 Pavement Management Program, City of Monrovia
- 2022 Pavement Management Program, City of Covina
- 2022 Pavement Management Program, City of La Habra Heights
- 2022 Pavement Management Program, City of Laguna Hills
- 2022 GIS Enterprise Support Services, City of Alhambra
- 2022 GIS Enterprise Support Services, City of Big Bear Lake
- 2022 Pavement Management Program, City of Big Bear Lake
- 2022 Pavement Management Program, City of Rialto
- 2022 Pavement Management Program, City of Vista
- 2022 GIS Enterprise Support Services, City of Fountain Valley
- 2022 Pavement Management Program, City of Rancho Santa Margarita
- 2022 Pavement Management Program, City of El Segundo

Project Understanding / Approach

We have defined detailed phases to the scope of work;

1. Project Implementation
2. Client Satisfaction
3. Project Schedule
4. Scope of Work (Major Tasks)

---

1) Project Implementation

TASK 1.1: Project Kickoff

The first step in implementing a successful pavement management program (PMP) truly resides in frequent communication and timely scheduled data updates. For the Fire Access Maintenance District #1 - Indian Wells County Club (FAMD-IWCC) it will be essential to establish, up front, pavement management priorities for FY 2024 and beyond. The identification of key project tasks while determining tasks that can be refined, improved upon and/or removed; will thus allow for cost-savings to the District.

Our team will set a Project Kickoff meeting to discuss and review in detail the expectations of the project, technical/survey approach, finalization of the scope of work and the review of the budget/schedule. This effort will continue to build upon the consensus between the key FAMD-IWCC staff as well as build stronger street maintenance programs/schedules. The essential topics to be discussed will include the review and assessment of the existing PMP pavement plan/data, survey areas, new construction, data quality and condition, current pavement procedures, historical expenditure levels, and desired service levels.

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

TASK 1.2: Project Status Meetings - Quality Control Program

Status Meetings and Progress Reports

- Minimum of three meetings during the project (kickoff, field, and status meetings)
- Field review meetings
- Monthly progress status reports will be delivered to FAMD-IWCC 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 (1.4 miles) of the original 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.

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 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 record/log any discrepancies between the previous and current PMP databases (any corrections/changes to the database shall not be made without prior FAMD-IWCC staff approval).

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

Over the past year, Bucknam has submitted over seventy-five (75) ASTM D6433 compliant PMP reports for SoCal municipalities, they include:

San Diego, San Bernardino, Riverside County PMP Clients		
Vista	Solana Beach	Santee
Barstow	Rialto	Ontario
Rancho La Quinta HOA	Hemet	Lake Elsinore
National City	Palm Springs	Redlands
Murrieta	Menifee	Cathedral City
Palm Desert	Big Bear Lake	Indian Wells
Los Angeles County PMP Clients (Current)		
Long Beach	Alhambra	El Segundo
Duarte	Culver City	Lomita
Rancho Palos Verdes	Palmdale	Glendora
Signal Hill	Pomona	Sierra Madre
Monterey Park	Hermosa Beach	South Pasadena
Compton	Lynwood	Norwalk
Monrovia	Rosemead	Bellflower
Lawndale	Covina	Beverly Hills
La Verne	South Gate	La Habra Heights
West Covina	Covina	Lakewood
Gardena	Commerce	South El Monte
Thousand Oaks		
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

Our surveys follow the accepted ASTM D6433 procedure requirements. A copy of the QA/QC plan utilized by our staff during the project will be submitted along with the PMP certification documents. Our staff attends the OCTA PMP Distress Training Classes held each year, 2011 thru 2023.

In February 2023 our staff was acknowledged as "qualified inspectors and firm" to prepare PMP's compliant with the OCTA Countywide Pavement Management Guidelines (this certification/compliance runs through June 2025).

Additionally, Bucknam was selected by the Orange County Transportation Authority (OCTA) in July, 2021 to perform a 10-year Pavement Management Plan analysis on ALL 35 Orange County local agencies PMP's.

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

2) Client Satisfaction

TASK 2.1: 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 Public Services / Engineering department. 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 1.2

3) Project Schedule

TASK 3.1: Work Flow / Project Schedule

Our project schedule shows each major task identified in our scope of work, as well as quality control milestones and meetings. Bucknam currently has ample staff to apply to this project in order to meet an aggressive schedule (two/three field technicians will drive the proactive schedule). Our Critical Path

Task Name	1-Mar	4-Mar	11-Mar	18-Mar	25-Mar	1-Apr	8-Apr	15-Apr	22-Apr	29-Apr	6-May	13-May	20-May
BASE SCOPE OF WORK													
Task 1.1 - Project Kickoff	X												
Assess PMP data / Establish Survey													
Project Status Meetings - Quality Control			X				X			X			
Task 2.1 - Project Deliverables													
Task 3.1 - Work Flow / Project Schedule	X												
Task 4.1 - Update Maintenance & Rehab Activities													
Task 4.2 - Pavement Condition Survey					30%		60%		100%				
PCI Reporting							X			X			
Quality Control Checks													
Develop Recommended Improvement Program													
Task 4.3 - Maintenance & CIP / Budgetary Analysis													
Task 4.4 - Final Maintenance & CIP Report													
City Review of Draft Final Report													
Project Status Meeting											X		
Delivery of Final CIP Report													
Task 4.5 - Mapping and GIS Update													
Task 4.6 - IWCC-FAMD MyRoads® PMP Web-Portal												X	
Optional Services													
Task 4.7 - As-Needed PMP-GIS Services													
Task 4.8 - AI True Area PMP Segment Calculation													

Method (CPM) 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 – March 1, 2024
- Survey Completion – April 22, 2024
- Delivery of draft PMP – April 24, 2024
- FAMD-IWCC comments returned to Consultant – May 8, 2024
- Delivery of FAMD-IWCC CIP Final Report – early June, 2024
    - All necessary PMP data, reporting and revenue projections will be submitted prior to May, 2024
    - FAMD-IWCC CIP data/Final Report, reporting and revenue projections will be submitted by May, 2024
- Implementation of PMP database – Any time after acceptance of Final PMP
    - All pavement data pertinent to the project deliverables will be submitted with the Final PMP report, May, 2024

4) Scope of Work (Major Tasks)

TASK 4.1: Update Maintenance and Rehabilitation Activities

Based on the pavement maintenance that has been performed by in-house staff as well as contractual maintenance, our staff will review all street activities that have been performed during the past four years. This data will be entered into MicroPAVER to enhance the recommendations for the upcoming budgetary analysis and CIP reporting. Bucknam will utilize their own license to perform all PMP tasks for this project; if FAMD-IWCC desires to purchase MicroPAVER, Bucknam will assist with the process.

Deliverable: District Work History Report

TASK 4.2: Conduct Pavement Condition Survey

Street Survey

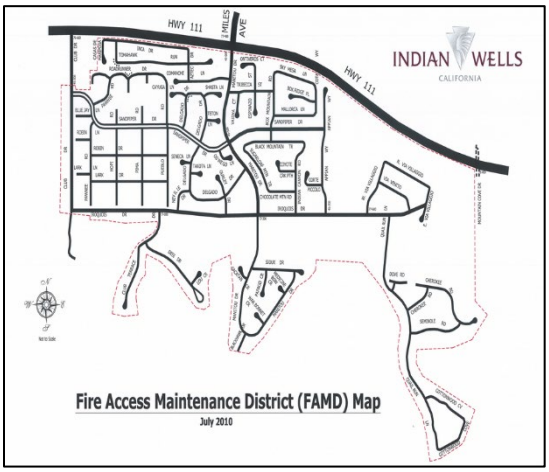
With four years since the District performed inspections it will be essential to verify that all street segmentation is up-to-date and that section SF quantities are accurate and reliable.

Once the pavement segmentation has been assessed and verified, the necessary inspection of 13.5 miles will be performed. Our survey methodology will include the following approach based on ASTM D6433 guidelines:

1. **Walking** All sections are surveyed through walking methodologies. 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 sampling guidelines while being flexible to current FAMD-IWCC requirements.

- The inspection of approximately 13.5 miles of street segments will be performed;
- Recent slurry seal and overlay maintenance will reduce total mileage of survey - TBD

For all surveys, the use of our PMP-Tablet units allows our staff to collect pavement data with the FAMD-IWCC PMP database live in the field. At the end of the day all electronic data is transferred to our office for quality control and management.



Our MicroPAVER-Tablet methodology sets us apart from the competition since we are using a paper-less inventory process to enter data; this in turn generates cost savings to enhance the project schedule and other portions of the project such as CIP reporting, PMP software training, and on-call services.

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:

1. **Field Attribute Data (updated and/or verified)**
   - Street Name, From/to, indicating the assigned limits of the section
   - Street ranking indicating local, collector, # of lanes, surface type
   - Historical PCI tracking from previous inspections and 2024 PCI inspections
   - Segment quantities, indicating the length, width, and total area of the section
2. **Conditional data will be evaluated for all street segments and will include:**
   - ASTM 20 AC & 19 PCC distresses by type, severity and sample area
   - PCI ratings (0-100), taking into account the surface condition, level of distress

We welcome staff from the District to join our surveys. 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 PMP deliverables will be placed within your information services network.

3. **Section Distress and PCI Reporting**

Upon 65% and 100% completion of the required condition surveys, we will prepare draft PCI Reports maps that document the conditions of all pavement segments. Bucknam will produce a "PCI Variance Report" that will demonstrate PCI variances comparing previous PCI's to 2024 PCI's (if prior PCI's are available). This report will allow staff to identify large variances caused by inspection issues, work history impacts and other field survey factors.

Additionally, this report will provide the necessary information within MicroPAVER for FAMD-IWCC to use and manipulate projected street rehabilitation and maintenance projects. Included in the report will be updated pavement performance curves and maintenance decision models. FAMD-IWCC and Bucknam staff will review the PCI reports to ensure that all inventory data is correct and the project is running smoothly.

Our PCI reporting will include:

- PCI report - Sorted by Name (A to Z), PCI Order (0-100)
- GIS graphical representation of conditions
- Distress Report analysis for each segment
- Work history report

Once FAMD-IWCC has reviewed, assessed and commented on the draft report, we will address all comments made and deliver the final reports.

Deliverable: District PCI reports, updated PMP database

DEVELOP RECOMMENDED IMPROVEMENT PROGRAM

TASK 4.3: Maintenance & CIP/Budgetary Analysis

We will assist FAMD-IWCC in developing the most cost-effective preventative maintenance, repair and rehabilitation (M & R) strategies possible. This will be accomplished by meeting with FAMD-IWCC to discuss and strategize maintenance activities that are currently being used by the District. We will conduct an historical and prospective analysis on the conditional and financial impact these practices have on the pavement network. Based on our fiscal and deterioration analysis, we will present our results and recommendations to FAMD-IWCC staff.

Our staff will review the FAMD-IWCC database deterioration curves that have been developed based on historical pavement condition inspections, surface type, work histories and road classification. The curves will be updated based on 2024 pavement conditions. Maintenance strategies that are typically reviewed are rehabilitation and reconstruction (R&R), localized maintenance, grinding, slurry seals, AC on PCC patching and overlays, 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 software 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 review and recommend a potential Area/Zone residential cycle; this will allow us to proactively schedule localized maintenance efforts throughout the CIP.

Our Project Manager and Principal will work closely with FAMD-IWCC in defining repair and rehabilitation strategies during each fiscal year (i.e. 2026-2031). 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 District's Pavement CIP
- Present pavement conditions; desired levels of service and available resources
- Cost benefit of individual strategies (e.g. reach a PCI of 75 in 5-years, etc.)
- 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

- Scheduling with other essential FAMD-IWCC CIP projects (water, sewer, etc.)
- Budgetary recommendations that satisfy short term and long term FAMD-IWCC goals
- Future routine maintenance needs based on projected deterioration rates

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 FAMD-IWCC staff to review. The report will include an executive summary, the PCI Report as well as draft budgetary findings and recommendations.

TASK 4.4: Final Maintenance & Capital Improvement Program Report

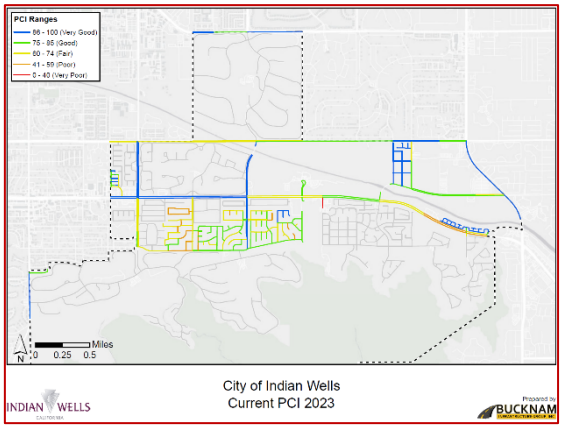
We will deliver the Final Report to FAMD-IWCC which will be essential for staff use/reference and beneficial for elected officials/upper management. The report will be prepared in a format that uses the information delivered by MicroPAVER in conjunction with the information and analysis performed by our team. The report will provide FAMD-IWCC with information on:

- Current inventory and pavement conditions indices (PCI) for all road classes
- Projected annual rehabilitation programs for street maintenance for a five-year period (Collector/Local Forecast Maintenance Reports) that show the largest return on investment and acceptable levels of service
- Modeling and comparison of budget scenarios typically include:
  - Current / Actual budget 5-year projection (District-wide approach)
  - Identification of annual funding to maintain current PCI after 5-years
  - Increase current PCI within 5-years
- Strategies and recommendations based on specific funding sources, maintenance programs and procedures, including a preventative maintenance schedule
- A detailed breakdown of deferred maintenance (backlog)
- The PMP will be presented to the FAMD-IWCC Board and/or upper management, and we will support staff in the development of the PMP presentation

Deliverable: One (1) digital copy of the Final Pavement PMP Report (.pdf), will be sent to the District. Bucknam will also provide final digital copies of the project related GIS files.

TASK 4.5: Mapping and GIS Update

As an enhancement and proactive approach to this project, our staff will establish and publish 2024 Pavement-GIS layer for the District. By using the segment unique ID's within the PMP and the ESRI street shapefile ID's, we will create a one-to-one match for each pavement section in the GIS. All pavement segmentation within the PMP database will be mirrored within the FAMD-IWCC GIS layer which will allow all pavement data to be published. **If FAMD-IWCC does not have a GIS Enterprise, at a minimum, Bucknam will provide GIS mapping with all final reporting.**



With a completed survey and an approved Pavement Condition Report, we will update and finalize the PMP-GIS layer with relevant PCI data.

The maps described below will be incorporated into FAMD-IWCC's Final PMP report:

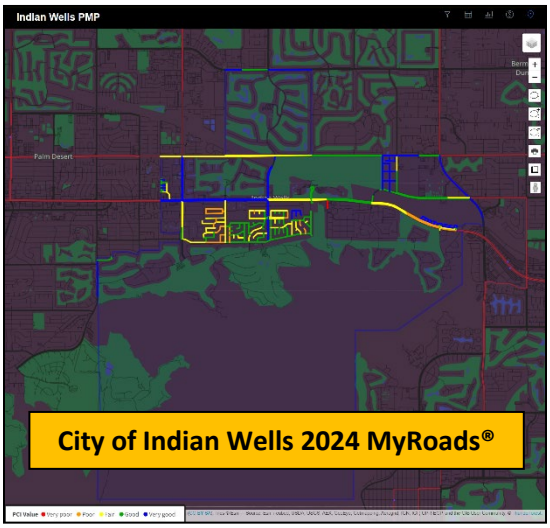
- PCI values for every section;
- Work History identifications;
- 5-yr Collector / Local Rehabilitation and Slurry Seal Programs; and
- Functional classification maps

Our staff will coordinate all project deliveries with FAMD-IWCC staff to ensure that the most current and accurate PMP-GIS maps are represented (**sample 2023 City of Indian Wells shown above**).

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

TASK 4.6: FAMD - IWCC MyRoads® PMP Web-Portal

FAMD-IWCC MyRoads® Web-Portal - Bucknam's MyRoads® is a great match for the FAMD-IWCC PMP today and the future. **MyRoads® brings your PMP data to life within a dynamic dashboard!**



Bucknam now provides all our PMP clients with a unique and District 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. This tool will be accessed by District staff simply through a Username/Password methodology.

As changes are made to the FAMD-IWCC 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 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 District-wide PCI
    - Display critical street / sidewalk / 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, 5-yr forecasted maintenance, etc.)
- Bucknam will train FAMD-IWCC staff on the simple use of the MyRoads® dashboard**.**

Optional Services

TASK 4.7: As-Needed PMP – GIS Services

Annual Pavement Management Program Support

With FAMD-IWCC implementing a proactive PMP schedules Bucknam will provide annual support through our As-Needed PMP – GIS services. If additional services outside the identified scope of work above are requested Bucknam will provide timely and proactive services to FAMD-IWCC. Additional As-Needed services typically include:

- Additional budget scenarios, general reporting, deterioration studies;
- Additional visual inspections above the mileage amount indicated in Task 4.2;
- Additional pavement management – GIS mapping;
- Additional MicroPAVER/MyRoads training, operation use; and

If requested, Bucknam will assess and review FAMD-IWCC's upcoming maintenance schedule for that fiscal year. The agreement will continue to include the provision of onsite and telephone support for FAMD-IWCC staff.

TASK 4.8: AI True Area PMP Segment Calculation

First and foremost, the assessment of the District's pavement segmentation is one of the key priorities for this project. With four years between major inspections it will be essential to verify that all segmentation is up-to-date and that section true area SF quantities are verified, accurate and reliable. This will be completed by utilizing Bucknam's cloud-based learning technology (AI) to correctly quantify square footages for each pavement section (see sample below).

Bucknam's use of cloud-based learning technology is initiated by providing the AI with the FAMD-IWCC most recent aerial image; in doing so, all AC and PCC pavement true areas are calculated. These calculations are possible due to the cloud-based learning tech's inherent working knowledge of how to recognize edge-of-pavement, surface types, medians, bus pads and AC/PCC surface limits.

This ability will allow Bucknam to obtain the necessary quality control measurements for defined FAMD-IWCC PMP segments and to perform segment true area SF variance reports. This will in turn create more accurate PCI's, engineering project cost estimations, total centerline / square footages of the network as well as for unique pavement segments. We will review/assess new and/or missing streets previously excluded from the last PMP update and create the necessary segmentation within the FAMD-IWCC PMP database + GIS links.

Cost Proposal

Task Items 1 through 4 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 $13,672 for the duration of the contract. We have included our fee schedule below for the District's consideration.

	Description	Principal	Project Manager	GIS Manager	Field Technician(s)	Admin	Total by Task
	2024 Base Fee	$295/hr	$215/hr	$165/hr	$108/hr	$100/hr	
Task 1	**Project Implementation**						
Task 1.1	Project Kickoff		1				$215
Task 1.2	Project Status Meetings - Quality Control		2	1	6		$1,243
Task 2	**Client Satisfaction**						
Task 2.1	Project Deliverables		2	2			$760
Task 3	**Project Schedule**						
Task 3.1	Work Flow / Project Schedule		1	1	2		$596
Task 4	**Scope of Work**						
Task 4.1	Update Maintenance and Rehabilitation Activities		1		6		$863
Task 4.2	Pavement Condition Survey (13.5 miles-Walking)		2	4	24		$3,682
Task 4.3	Maintenacne & CIP / Budgetary Analysis		2				$430
Task 4.4	Final Maintenance & CIP Report	1	16	2		1	$4,165
Task 4.5	Mapping and GIS Update		2	2	1		$868
Task 4.6	IWCC-FAMD MyRoads® PMP Web-Portal						$300
	Reimbursables (mileage, printing, project materials)						$550
	All deliverables will become property of FAMD-IWCC						
	All Tasks are negotiable						
	Total Hours per Staff	**1**	**29**	**12**	**39**	**1**	
	2024 Total Base Fee	***$ 295***	***$ 6,235***	***$ 1,980***	***$ 4,212***	***$ 100***	***$13,672***
	Optional Tasks						
Task 4.7	As-Needed PMP - GIS Services (T&M, Not-to-Exceed)						TBD
	Purchase of MicroPAVER License (if IWCC-FAMD requests)						$1,350
Task 4.8	AI True Area PMP Segment Calculation						$850
	Additional services outside of this contract will be negotiated with the City where we will use the Standard Hourly Rate Schedule shown						

Should the District desire to increase the service level above the hours outlined above for the Task items 1 through 4 or require other services not described herein, a fee adjustment would be negotiated and mutually agreed upon by both parties.

Standard Hourly Rate Schedule

Category	*Rate*
Principal	**$ 295**
Senior Project Manager	**215**
Pavement Management Project Manager	**215**
Management Analyst	**180**
Project Engineer / Planner	**170**
Sr. Engineer / GIS Manager / Sr. Inspector	**165**
Assistant Engineer / Sr. Technician / GIS Analyst	**155**
CADD Operator	**120**
Field Technician	**108**
Administrative Assistant	**100**
Clerical / Word Processing	**95**

Reimbursables

Mileage	**$0.77/mile**
Subconsultant Services	**Cost + 15%**
Reproduction	**Cost + 15%**
Travel & Subsistence	**Cost + 15%**
Fees & Permits	**Cost + 15%**
Computer Services (External)	**Cost + 15%**

Rates Effective 1/1/24

BUCKNAM INFRASTRUCTURE GROUP, INC
3548 Seagate Way, Suite 230
Oceanside, CA 92056
T: (760) 216-6529
www.bucknam-inc.com

Prepared for:

Fire Access Maintenance District #1
An Agency of the City of Indian Wells
Indian Wells Country Club Community

Proposal for

PAVEMENT MANAGEMENT PLAN 2026-2031

Prepared for:

Kimley»Horn
Expect More. Experience Better.

Kimley»Horn

February 20, 2024

73-700 Dinah Shore Drive
Unit 101
Palm Desert, CA 92211
TEL (760) 565-5103

Fire Access Maintenance District #1
Attn: District Manager Scott Matas
42-635 Melanie Place, Suite 103
Palm Desert, CA 92211

RE: Professional Services Proposal for Pavement Management Plan 2026-2031

Dear Mr. Matas,

Kimley-Horn and Associates, Inc. ("Kimley-Horn" or "Consultant") is pleased to submit this letter proposal (the "Proposal") to Fire Access Management District #1 ("Client" or "FAMD #1") for providing pavement evaluation services for the Indian Wells Country Club community.

Company Background

Kimley-Horn has been providing roadway design and engineering services since 1967 and pavement management services since 1991. We have been responsible for the planning and design of hundreds of local roadway improvement projects in the past five years, including pavement rehabilitation and design projects in Indian Wells at Washington Street, Casa Dorado Drive, Indian Wells Golf Resort, and Miles Avenue. Kimley-Horn prides itself to provide high quality engineering and planning services to the City of Indian Wells and is intimately familiar with all Indian Wells requirements and standards.

Our work spans the pavement life cycle and includes pavement condition assessment; pavement management system (PMS) implementation; sidewalk ADA compliance and improvements; municipal CIP planning; street rehabilitation conceptual and preliminary design; final plans, specifications, and estimates (PS&E); and construction support.

Our national experience with implementing and updating pavement management systems, conducting pavement condition inspections, and developing capital improvement programs (CIPs) makes Kimley-Horn well-suited for partnering with FAMD #1 on this important project.

Project Understanding

FAMD #1 is a private community located in Indian Wells, California. FAMD #1 is engaging a Consultant to conduct a condition assessment of its street network and provide recommendations on preventive maintenance, curb and gutter repair, and other safety enhancements.

To support FAMD #1 in assessing current roadway conditions and determining long-term roadway funding requirements, Kimley-Horn will evaluate the type, severity, and extent of pavement distresses to determine appropriate roadway maintenance and repair recommendations. The estimated scope of the investigation is shown in *Figure 1* and includes approximately 12.7 centerline miles of roadway pavements and several parking lots. The evaluation will consider a range of maintenance and repair options that may be appropriate for the unique pavement conditions encountered at FAMD #1.

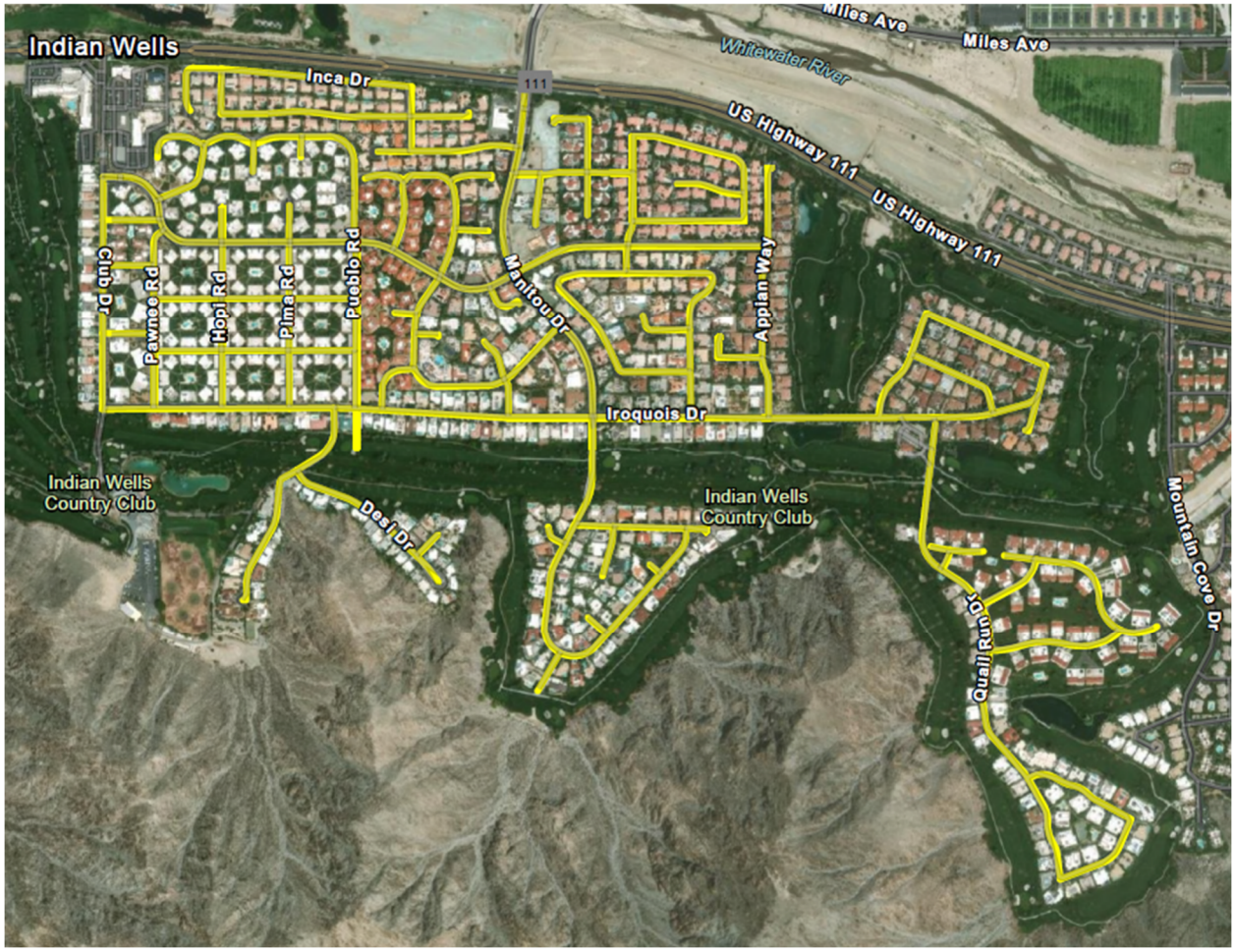


Figure 1. FAMD #1 Pavement Network

Scope of Services

Kimley-Horn will provide the services specifically set forth below.

Task 1 – Network Definition

Kimley-Horn will define the roadway network and develop a survey plan that encompasses the roadways and parking lots considered in the evaluation. Kimley-Horn will develop a pavement inventory file containing each roadway and parking lot segment with related attribute information, including surface type, to/from streets, segment length, segment width, and other geometrical attributes. Pavement segments will be grouped by unit, street, or as desired by the Client.

Task 1 Deliverables:

- ✓ *Network definition map exhibit (PDF format)*
- ✓ *Pavement inventory table (Excel format)*

Task 2 – Pavement Condition Evaluation

Kimley-Horn will conduct a pavement condition assessment for approximately 12.7 centerline miles of streets and parking lots. Kimley-Horn will collect pavement condition data according to the Pavement Surface Evaluation and Rating System (PASER) methodology. Kimley-Horn will conduct a visual assessment of pavement conditions and document existing pavement distresses such as cracks, potholes, and other distresses in the pavement surface to help identify appropriate treatment strategies. Pavement areas selected for visual assessment will be reviewed to determine distress characteristics such as type, severity, and extent. Detailed distress information will help determine pavement treatment recommendations in Task 3. Pavement inspectors will be equipped with computer tablets and GPS-enabled digital cameras to catalog distresses encountered and develop a photo log compatible with Google Earth, like that shown in *Figure 2*.

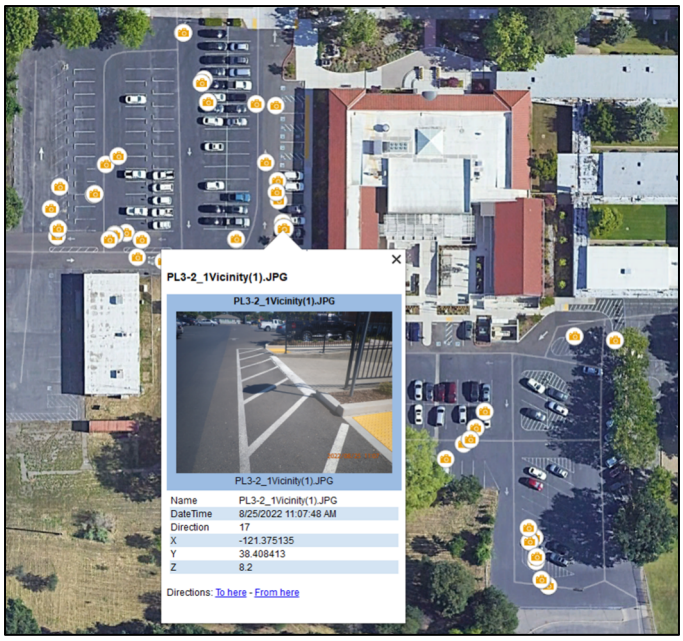


Figure 2. Google Earth Pavement Distress Photo Log

In addition to pavement assessments, conditions of curb and gutter will be noted. Kimley-Horn will categorize the conditions of curb and gutter on a Good/Fair/Poor scale according to the following methodology or as desired by the Client:

- Good: curb and gutter do not require maintenance and repair in the next 5 years
- Fair: curb and gutter require some preventive maintenance in the next 3-5 years
- Poor: curb and gutter require extensive repair or replacement in the next 1-3 years

Kimley-Horn will also review intersection operations and provide guidance on street safety improvements or other traffic calming measures.

Task 2 Deliverables:

- ✓ *Pavement and asset assessment results in tabular and graphical formats (Excel, PDF)*
- ✓ *Photo log (Google Earth KMZ)*

Task 3 – Reporting

Pavement conditions will be analyzed to determine optimal treatment recommendations and associated cost estimates. Treatment options such as full-depth reconstruction, mill-and-overlay, slurry sealing, and other preventive maintenance treatments like crack sealing and patching will be considered, along with other treatments that the Client may have found success using in the past. Curb and gutter repair and replacement costs can also be included, as well as estimates for traffic safety upgrades such as signing and striping. Cost estimates and anticipated treatment timing will be prepared in a format consistent with previous studies commissioned by FAMD #1 should they exist. One example of a multi-year maintenance program is shown in *Figure 3*.

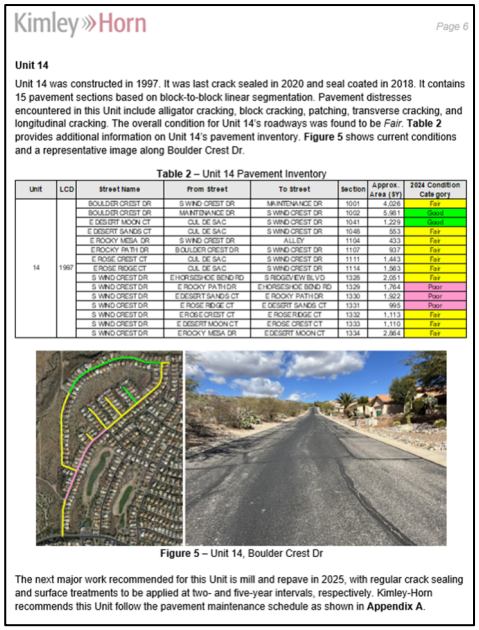
Unit	Age (Years)	Year Built	Condition in 2023	Area (SY)	Work Type	Unit Cost ($/SY)	2024	2025	2026	2027	2028	2029	2030	2031
14	27	1997	Fair	27,984	Crack Seal	$ 0.54			$ 16,227		$ 17,551		$ 18,983	
				27,984	Seal Coat	$ 1.17			$ 35,533					$ 43,232
				27,984	Mill & Repave	$ 25.76		$ 749,610						
				280	Patching/Dig-Out	$ 71.00								
15	29	1995	Fair	32,808	Crack Seal	$ 0.54		$ 18,293		$ 19,785		$ 21,400		$ 23,146
				32,808	Seal Coat	$ 1.17		$ 40,056					$ 48,735	
				32,808	Mill & Repave	$ 25.76	$ 845,030							
				328	Patching/Dig-Out	$ 71.00								
17	28	1996	Good	27,781	Crack Seal	$ 0.54		$ 15,490		$ 16,754		$ 18,121		
				27,781	Seal Coat	$ 1.17		$ 33,919						
				27,781	Mill & Repave	$ 25.76								$ 941,616
				278	Patching/Dig-Out	$ 71.00								
22	7	2017	Good	4,260	Crack Seal	$ 0.54	$ 2,284		$ 2,470		$ 2,939		$ 3,179	
				4,260	Seal Coat	$ 1.17					$ 5,851			
				4,260	Mill & Repave	$ 25.76								
				43	Patching/Dig-Out	$ 71.00	$ 3,025			$ 3,402			$ 3,827	
23	6	2018	Good	10,301	Crack Seal	$ 0.54		$ 5,743		$ 6,212		$ 7,391		$ 7,994
				10,301	Seal Coat	$ 1.17	$ 12,093					$ 14,713		
				10,301	Mill & Repave	$ 25.76								
				103	Patching/Dig-Out	$ 71.00		$ 7,606			$ 8,556			$ 9,624
24	25	1999	Fair	20,091	Crack Seal	$ 0.54	$ 11,848		$ 12,815				$ 13,629	
				20,091	Seal Coat	$ 1.17		$ 24,530					$ 29,844	
				20,091	Mill & Repave	$ 25.76						$ 629,594		
				201	Patching/Dig-Out	$ 71.00		$ 14,835						

Figure 3. Example of a Multi-Year Maintenance Program

Kimley-Horn will summarize results in a letter report describing the data collection results and improvement recommendations. This report will also include a summary of near-term recommended treatments from the present to 2026, as well as long-term recommendations from 2026 to 2031. An example of a report is shown in *Figure 4*. Kimley-Horn will coordinate with FAMD #1 to review the changes and update the document based on the comments received.

Task 3 Deliverables:

- ✓ *Draft and final versions of a technical memorandum describing pavement conditions and recommended treatment options by roadway segment (Word, PDF formats)*
- ✓ *GIS shapefile with inventory, conditions, and recommended treatments (.SHP format)*



Kimley»Horn Page 6

Unit 14

Unit 14 was constructed in 1997. It was last crack sealed in 2020 and seal coated in 2018. It contains 15 pavement sections based on block-to-block linear segmentation. Pavement distresses encountered in this Unit include alligator cracking, block cracking, patching, transverse cracking, and longitudinal cracking. The overall condition for Unit 14's roadways was found to be *Fair*. **Table 2** provides additional information on Unit 14's pavement inventory. **Figure 5** shows current conditions and a representative image along Boulder Crest Dr.

Table 2 – Unit 14 Pavement Inventory

Unit	LCD	Street Name	From Street	To Street	Section	Approx. Area (SY)	2024 Condition Category
14	1997	BOULDER CREST DR	S WIND CREST DR	MAINTENANCE DR	1001	4,026	Fair
		BOULDER CREST DR	MAINTENANCE DR	S WIND CREST DR	1002	5,981	Good
		E DESERT MOON CT	CUL DE SAC	S WIND CREST DR	1041	1,229	Good
		E DESERT SANDS CT	CUL DE SAC	S WIND CREST DR	1048	553	Fair
		E ROCKY MESA DR	S WIND CREST DR	ALLEY	1104	433	Fair
		E ROCKY PATH DR	BOULDER CREST DR	S WIND CREST DR	1107	937	Fair
		E ROSE CREST CT	CUL DE SAC	S WIND CREST DR	1111	1,443	Fair
		E ROSE RIDGE CT	CUL DE SAC	S WIND CREST DR	1114	1,563	Fair
		S WIND CREST DR	E HORSESHOE BEND RD	S RIDGEVIEW BLVD	1328	2,051	Fair
		S WIND CREST DR	E ROCKY PATH DR	E HORSESHOE BEND RD	1329	1,764	Poor
		S WIND CREST DR	E DESERT SANDS CT	E ROCKY PATH DR	1330	1,922	Poor
		S WIND CREST DR	E ROSE RIDGE CT	E DESERT SANDS CT	1331	995	Poor
		S WIND CREST DR	E ROSE CREST CT	E ROSE RIDGE CT	1332	1,113	Fair
		S WIND CREST DR	E DESERT MOON CT	E ROSE CREST CT	1333	1,110	Fair
		S WIND CREST DR	E ROCKY MESA DR	E DESERT MOON CT	1334	2,864	Fair

Figure 5 – Unit 14, Boulder Crest Dr

The next major work recommended for this Unit is mill and repave in 2025, with regular crack sealing and surface treatments to be applied at two- and five-year intervals, respectively. Kimley-Horn recommends this Unit follow the pavement maintenance schedule as shown in **Appendix A**.

Figure 4. Example of a Pavement Management Report

Task 4 – DRIVE Software and Training (Optional)

As an optional task, Kimley-Horn will provide a user login for the Client to access the DRIVE software (Database for Roadway Inventory Visualization and Evaluation). DRIVE incorporates a user interface for maintaining repair and treatment data as well as exporting and viewing data. DRIVE also has pavement repair and analysis capabilities to develop pavement repair work plans. Maintenance and repair recommendations and the initial multi-year plan from Task 3 will be viewable in DRIVE, along with condition and inventory data. Shifting future needs may require changes to the FAMD #1's five-year paving plan. DRIVE allows the user flexibility to dynamically update the capital plan and provides relevant data and viewing dashboards in order to make informed decisions. *Figure 5* shows a sample DRIVE user interface.

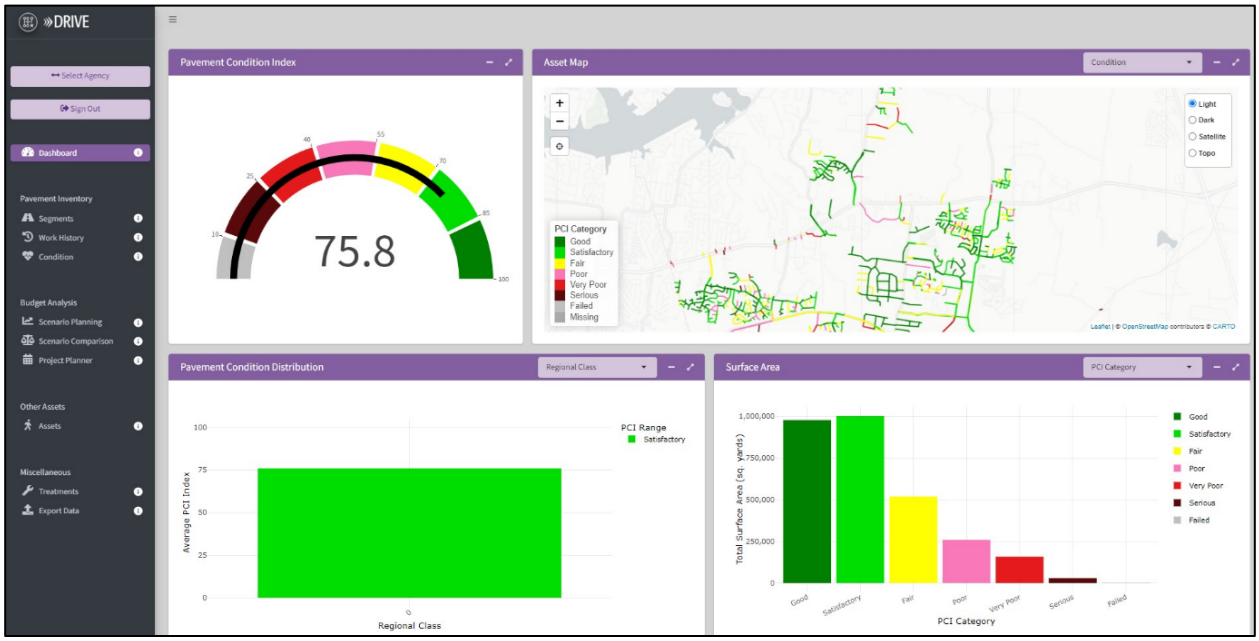


Figure 5. DRIVE™ Dashboard

Following the initial configuration and data integration into DRIVE, Kimley-Horn will meet with the Client to demonstrate software features and functions with the goal of providing HOA staff with the training to operate the system independently. Kimley-Horn will provide FAMD #1 staff with training for operation of the DRIVE software in a virtual training meeting. The software will be web-based and allow for users to access the site remotely. The initial DRIVE software licensing period will remain in effect for one (1) year after initial logins are provided and can be renewed by the Client annually should they wish to do so.

Task 4 Deliverables:

- ✓ *1-year access to the DRIVE web-based platform*

Schedule

We will complete these tasks as expediently as practical based upon a mutually agreed upon schedule. Assuming Notice to Proceed (NTP) on March 1, 2024, we anticipate the following milestones over a 4-month period of performance:

- March 15, 2024: Record review and network definition completed
- April 15, 2024: Pavement assessments completed
- April 30, 2024: PASER values and KMZ photolog finalized and delivered
- May 15, 2024: Draft pavement management report delivered
- June 15, 2024: Final pavement management report delivered

Fee and Expenses

Kimley-Horn will perform the services in Tasks 1-3 and optionally Task 4 for the total lump sum fee below. Individual task amounts are informational only. All permitting, application, and similar project fees will be paid directly by the Client.

Base Services	
Task 1 Network Definition	$ 1,500
Task 2 Pavement Condition Evaluation	$ 13,000
Task 3 Reporting	$ 5,450
Base Services Total Fee	$ 19,950
Optional Services	
Task 4 DRIVE Software and Training	$ 5,000
Base and Optional Services Total Fee	$ 24,950

Lump sum fees will be invoiced monthly based upon the overall percentage of services performed. Payment will be due within 30 days of your receipt of the invoice.

References

Please feel free to contact either of the references listed below for more information about the quality of our services on similar projects.

Walter Yazzie
General Manager
Saddlebrooke Homeowner's Association #2
38735 S Mountain View Boulevard
Tucson, AZ 85739
520-818-1000
walter.yazzie@sbhoa2.org

Ross Cornelius
Project Manager
Palm Desert Tennis Club
48240 Racquest Lane
Palm Desert, CA 92260
503-475-8741
rwcornelius88@gmail.com

Additional Services

Any services not specifically provided for in the above scope will be billed as additional services and performed at our then current hourly rates. Additional services we can provide include, but are not limited to, the following:

1. Non-destructive pavement structural testing
2. Geotechnical investigations, including coring and boring
3. Additional survey and subsurface utility engineering (SUE)
4. Construction documents
5. Submittal and permitting fees
6. Preparation of record drawings
7. SWPPP plan manual / submissions
8. Grant funding coordination
9. Bidding and construction phase services
10. Any item not specifically included in the Scope of Service

Information Provided by Client

We shall be entitled to rely on the completeness and accuracy of all information provided by the Client or the Client's consultants or representatives.

Responsibilities of Client

In addition to other responsibilities set out in this Agreement, the Client shall:

- Provide access to the community through the main gate during normal business hours.

Closure

In addition to the matters set forth herein, our Agreement shall include and be subject to, and only to, the attached Standard Provisions, which are incorporated by reference. As used in the Standard Provisions, "Consultant" shall refer to Kimley-Horn and Associates, Inc., and "Client" shall refer to Fire Access Maintenance District #1.

Kimley-Horn, in an effort to expedite invoices and reduce paper waste, submits invoices via email in an Adobe PDF format. We can also provide a paper copy via regular mail if requested. Please include the invoice number and Kimley-Horn project number with all payments. Please provide the following information:

____ Please email all invoices to _____

____ Please copy _____

If you concur in all the foregoing and wish to direct us to proceed with the services, please have authorized persons execute both copies of this Agreement in the spaces provided below, retain one copy, and return the other to us. We will commence services only after we have received a fully executed agreement. Fees and times stated in this Agreement are valid for sixty (60) days after the date of this letter.

To ensure proper set up of your projects so that we can get started, please complete and return with the signed copy of this Agreement the attached Request for Information. Failure to supply this information could result in delay in starting work on your project.

Thank you in advance for your consideration of this project. Kimley-Horn is fully committed to this effort and looks forward to the implementation of this project and the benefits it will bring to the community. For any further information, please contact Tim Miller at (916) 571-1015 or timothy.miller@kimley-horn.com.

Very truly yours,

KIMLEY-HORN AND ASSOCIATES, INC.

Timothy Miller, P.E.
Project Manager

Frank Hoffmann, P.E.
Project Principal

FAMD #1

SIGNED: _____

PRINTED NAME: _____

TITLE:_____

DATE: _____

Client's Federal Tax ID: _____
Client's Business License No.: _____
Client's Street Address: _____
_____

Attachment – Request for Information
Attachment – Standard Provisions

Kimley»Horn

Request for Information

Please return this information with your signed contract; failure to provide this information could result in delay in starting your project

Client Identification

Full, Legal Name of Client						
Mailing Address for Invoices						
Contact for Billing Inquiries						
Contact's Phone and e-mail						
Client is (check one)	Owner		Agent for Owner		Unrelated to Owner	

Property Identification

	Parcel 1	Parcel 2	Parcel 3	Parcel 4
Street Address				
County in which Property is Located				
Tax Assessor's Number(s)				

Property Owner Identification

	Owner 1	Owner 2	Owner 3	Owner 4
Owner(s) Name				
Owner(s) Mailing Address				
Owner's Phone No.				
Owner of Which Parcel #?				

Project Funding Identification – List Funding Sources for the Project

Attach additional sheets if there are more than 4 parcels or more than 4 owners

KIMLEY-HORN AND ASSOCIATES, INC.
STANDARD PROVISIONS

1) **Kimley-Horn's Scope of Services and Additional Services.** Kimley-Horn will perform only the services specifically described in this Agreement. If requested by the Client and agreed to by Kimley-Horn, Kimley-Horn will perform Additional Services, which shall be governed by these provisions. Unless otherwise agreed to in writing, the Client shall pay Kimley-Horn for any Additional Services an amount based upon Kimley-Horn's then-current hourly rates plus an amount to cover certain direct expenses including telecommunications, in-house reproduction, postage, supplies, project related computer time, and local mileage. Other direct expenses will be billed at 1.15 times cost.

2) **Client's Responsibilities**. In addition to other responsibilities herein or imposed by law, the Client shall:
   a. Designate in writing a person to act as its representative, such person having complete authority to transmit instructions, receive information, and make or interpret the Client's decisions.
   b. Provide all information and criteria as to the Client's requirements, objectives, and expectations for the project and all standards of development, design, or construction.
   c. Provide Kimley-Horn all available studies, plans, or other documents pertaining to the project, such as surveys, engineering data, environmental information, etc., all of which Kimley-Horn may rely upon.
   d. Arrange for access to the site and other property as required for Kimley-Horn to provide its services.
   e. Review all documents or reports presented by Kimley-Horn and communicate decisions pertaining thereto within a reasonable time so as not to delay Kimley-Horn.
   f. Furnish approvals and permits from governmental authorities having jurisdiction over the project and approvals and consents from other parties as may be necessary.
   g. Obtain any independent accounting, legal, insurance, cost estimating, and feasibility services required by Client.
   h. Give prompt written notice to Kimley-Horn whenever the Client becomes aware of any development that affects Kimley-Horn's services or any defect or noncompliance in any aspect of the project.

3) **Period of Services**. Unless otherwise stated herein, Kimley-Horn will begin work after receipt of a properly executed copy of this Agreement. This Agreement assumes conditions permitting continuous and orderly progress through completion of the services. Times for performance shall be extended as necessary for delays or suspensions due to circumstances that Kimley-Horn does not control. If such delay or suspension extends for more than six months, Kimley-Horn's compensation shall be renegotiated.

4) **Method of Payment.** Client shall pay Kimley-Horn as follows:
   a. Invoices will be submitted periodically for services performed and expenses incurred. Invoices are due and payable upon presentation. Client shall pay Kimley-Horn a time price differential of one and one-half percent (1.5%) of the outstanding amount of each invoice that is overdue for more than 30 days. The Client shall also pay any applicable sales tax. All retainers will be held by Kimley-Horn and applied against the final invoice. If the Client fails to make any payment due under this or any other agreement within 30 days after presentation, Kimley-Horn may, after giving notice to the Client, suspend services and withhold deliverables until all amounts due are paid, and may commence legal proceedings including filing liens to secure payment.
   b. If the Client relies on payment or proceeds from a third party to pay Kimley-Horn and Client does not pay Kimley-Horn's invoice within 60 days of receipt, Kimley-Horn may communicate directly with such third party to secure payment.
   c. If the Client objects to an invoice, it must advise Kimley-Horn in writing giving its reasons within 14 days of receipt of the invoice or the Client's objections will be waived, and the invoice shall conclusively be deemed due and owing. If the Client objects to only a portion of the invoice, payment for all other portions remains due.
   d. If Kimley-Horn initiates legal proceedings to collect payment, it may recover, in addition to all amounts due, its reasonable attorneys' fees, reasonable experts' fees, and other expenses related to the proceedings. Such expenses shall include the cost, at Kimley-Horn's normal hourly billing rates, of the time devoted to such proceedings by its employees.
   e. The Client agrees that the payment to Kimley-Horn is not subject to any contingency or condition. Kimley-Horn may negotiate payment of any check tendered by the Client, even if the words "in full satisfaction" or words intended to have similar effect appear on the check without such negotiation being an accord and satisfaction of any disputed debt and without prejudicing any right of Kimley-Horn to collect additional amounts from the Client.

5) **Use of Documents.** All documents and data prepared by Kimley-Horn are related exclusively to the services described in this Agreement and may be used only if the Client has satisfied all of its obligations under this Agreement. They are not intended or represented to be suitable for use or reuse by the Client or others on extensions of this project or on any other project. Any modifications by the Client to any of Kimley-Horn's documents, or any reuse of the documents without written authorization by Kimley-Horn will be at the Client's sole risk and without liability to Kimley-Horn, and the Client shall indemnify, defend and hold Kimley-Horn harmless from all claims, damages, losses and expenses, including but not limited to attorneys' fees, resulting therefrom.

Kimley-Horn's electronic files and source code remain the property of Kimley-Horn and shall be provided to the Client only if expressly provided for in this Agreement. Any electronic files not containing an electronic seal are provided only for the convenience of the Client and use of them is at the Client's sole risk. In the case of any defects in the electronic files or any discrepancies between them and the hardcopy of the documents prepared by Kimley-Horn, the hardcopy shall govern.

6) **Intellectual Property.** Kimley-Horn may use or develop its proprietary software, patents, copyrights, trademarks, trade secrets, and other intellectual property owned by Kimley-Horn or its affiliates ("Intellectual Property") in the performance of this Agreement. Unless explicitly agreed to in writing by both parties to the contrary, Kimley-Horn maintains all interest in and ownership of its Intellectual Property and conveys no interest, ownership, license to use, or any other rights in the Intellectual Property to Client. Any enhancements of Intellectual Property made during the performance of this Agreement are solely owned by Kimley-Horn and its affiliates. If Kimley-Horn's services include providing Client with access to or a license for Kimley-Horn's (or its affiliates') proprietary software or technology, Client agrees to the terms of the Software License Agreement set forth at https://www.kimley-horn.com/khts-software-license-agreement ("the License Agreement") which terms are incorporated herein by reference.

7) **Opinions of Cost.** Because Kimley-Horn does not control the cost of labor, materials, equipment or services furnished by others, methods of determining prices, or competitive bidding or market conditions, any opinions rendered as to costs, including but not limited to the costs of construction and materials, are made solely based on its judgment as a professional familiar with the industry. Kimley-Horn cannot and does not guarantee that proposals, bids or actual costs will not vary from its opinions of cost. If the Client wishes greater assurance as to the amount of any cost, it shall employ an independent cost estimator. Kimley-Horn's services required to bring costs within any limitation established by the Client will be paid for as Additional Services.

8) **Termination.** The obligation to provide further services under this Agreement may be terminated by either party upon seven days' written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof, or upon thirty days' written notice for the convenience of the terminating party. Kimley-Horn shall be paid for all services rendered and expenses incurred to the effective date of termination, and other reasonable expenses incurred by Kimley-Horn as a result of such termination.

9) **Standard of Care.** The standard of care applicable to Kimley-Horn's services will be the degree of care and skill ordinarily exercised by consultants performing the same or similar services in the same locality at the time the services are provided. No warranty, express or implied, is made or intended by Kimley-Horn's performance of services, and it is agreed that Kimley-Horn is not a fiduciary with respect to the Client.

10) **LIMITATION OF LIABILITY.** In recognition of the relative risks and benefits of the Project to the Client and Kimley-Horn, the risks are allocated such that, to the fullest extent allowed by law, and notwithstanding any other provisions of this Agreement or the existence of applicable insurance coverage, that the total liability, in the aggregate, of Kimley-Horn and Kimley-Horn's officers, directors, employees, agents, and subconsultants to the Client or to anyone claiming by, through or under the Client, for any and all claims, losses, costs or damages whatsoever arising out of or in any way related to the services under this Agreement from any causes, including but not limited to, the negligence, professional errors or omissions, strict liability or breach of contract or any warranty, express or implied, of Kimley-Horn or Kimley-Horn's officers, directors, employees, agents, and subconsultants, shall not exceed twice the total compensation received by Kimley-Horn under this Agreement or $50,000, whichever is greater. Higher limits of liability may be negotiated for additional fee. This Section is intended solely to limit the remedies available to the Client or those claiming by or through the Client, and nothing in this Section shall require the Client to indemnify Kimley-Horn.

11) **Mutual Waiver of Consequential Damages.** In no event shall either party be liable to the other for any consequential, incidental, punitive, or indirect damages including but not limited to loss of income or loss of profits.

12) **Construction Costs.** Under no circumstances shall Kimley-Horn be liable for extra costs or other consequences due to unknown conditions or related to the failure of contractors to perform work in accordance with the plans and specifications. Kimley-Horn shall have no liability whatsoever for any costs arising out of the Client's decision to obtain bids or proceed with construction before Kimley-Horn has issued final, fully approved plans and specifications. The Client acknowledges that all preliminary plans are subject to substantial revision until plans are fully approved and all permits obtained.

13) **Certifications.** All requests for Kimley-Horn to execute certificates, lender consents, or other third-party reliance letters must be submitted to Kimley-Horn at least 14 days prior to the requested date of execution. Kimley-Horn shall not be required to execute certificates, consents, or third-party reliance letters that are inaccurate, that relate

to facts of which Kimley-Horn does not have actual knowledge, or that would cause Kimley-Horn to violate applicable rules of professional responsibility.

14) **Dispute Resolution.** All claims arising out of this Agreement or its breach shall be submitted first to mediation in accordance with the American Arbitration Association as a condition precedent to litigation. Any mediation or civil action by Client must be commenced within one year of the accrual of the cause of action asserted but in no event later than allowed by applicable statutes.

15) Hazardous Substances and Conditions. Kimley-Horn shall not be a custodian, transporter, handler, arranger, contractor, or remediator with respect to hazardous substances and conditions. Kimley-Horn's services will be limited to analysis, recommendations, and reporting, including, when agreed to, plans and specifications for isolation, removal, or remediation. Kimley-Horn will notify the Client of unanticipated hazardous substances or conditions of which Kimley-Horn actually becomes aware. Kimley-Horn may stop affected portions of its services until the hazardous substance or condition is eliminated.

16) **Construction Phase Services.**

a. If Kimley-Horn prepares construction documents and Kimley-Horn is not retained to make periodic site visits, the Client assumes all responsibility for interpretation of the documents and for construction observation, and the Client waives any claims against Kimley-Horn in any way connected thereto.

b. Kimley-Horn shall have no responsibility for any contractor's means, methods, techniques, equipment choice and usage, equipment maintenance and inspection, sequence, schedule, safety programs, or safety practices, nor shall Kimley-Horn have any authority or responsibility to stop or direct the work of any contractor. Kimley-Horn's visits will be for the purpose of endeavoring to provide the Client a greater degree of confidence that the completed work of its contractors will generally conform to the construction documents prepared by Kimley-Horn. Kimley-Horn neither guarantees the performance of contractors, nor assumes responsibility for any contractor's failure to perform its work in accordance with the contract documents.

c. Kimley-Horn is not responsible for any duties assigned to it in the construction contract that are not expressly provided for in this Agreement. The Client agrees that each contract with any contractor shall state that the contractor shall be solely responsible for job site safety and its means and methods; that the contractor shall indemnify the Client and Kimley-Horn for all claims and liability arising out of job site accidents; and that the Client and Kimley-Horn shall be made additional insureds under the contractor's general liability insurance policy.

17) **No Third-Party Beneficiaries; Assignment and Subcontracting.** This Agreement gives no rights or benefits to anyone other than the Client and Kimley-Horn, and all duties and responsibilities undertaken pursuant to this Agreement will be for the sole benefit of the Client and Kimley-Horn. The Client shall not assign or transfer any rights under or interest in this Agreement, or any claim arising out of the performance of services by Kimley-Horn, without the written consent of Kimley-Horn. Kimley-Horn reserves the right to augment its staff with subconsultants as it deems appropriate due to project logistics, schedules, or market conditions. If Kimley-Horn exercises this right, Kimley-Horn will maintain the agreed-upon billing rates for services identified in the contract, regardless of whether the services are provided by in-house employees, contract employees, or independent subconsultants.

18) **Confidentiality.** The Client consents to the use and dissemination by Kimley-Horn of photographs of the project and to the use by Kimley-Horn of facts, data and information obtained by Kimley-Horn in the performance of its services. If, however, any facts, data or information are specifically identified in writing by the Client as confidential, Kimley-Horn shall use reasonable care to maintain the confidentiality of that material.

19) **Miscellaneous Provisions.** This Agreement is to be governed by the law of the State of California. This Agreement contains the entire and fully integrated agreement between the parties and supersedes all prior and contemporaneous negotiations, representations, agreements, or understandings, whether written or oral. Except as provided in Section 1, this Agreement can be supplemented or amended only by a written document executed by both parties. Any conflicting or additional terms on any purchase order issued by the Client shall be void and are hereby expressly rejected by Kimley-Horn. If Client requires Kimley-Horn to register with or use an online vendor portal for payment or any other purpose, any terms included in the registration or use of the online vendor portal that are inconsistent or in addition to these terms shall be void and shall have no effect on Kimley-Horn or this Agreement. Any provision in this Agreement that is unenforceable shall be ineffective to the extent of such unenforceability without invalidating the remaining provisions. The non-enforcement of any provision by either party shall not constitute a waiver of that provision nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

Contact

TIM MILLER, P.E.

timothy.miller@kimley-horn.com

916.571.1015

Kimley»Horn

Expect More. Experience Better.

Fire Access Maintenance District #1 - Indian Wells Country Club

PROPOSAL FOR

Pavement Management Plan 2026-2031

FEBRUARY 22, 2024

Tim Jonasson, PE

44651 Village Court, Suite 123
Palm Desert, CA 92260

Cell 760.250.6722

tjonasson@hrgreen.com

HRGreen®
PACIFIC

44651 Village Court | Suite 123
Palm Desert, CA 92260

HRGREEN.COM

February 22, 2024

Scott Matas, District Manager
Fire Access Maintenance District #1
42-635 Melanie Place, Suite 103
Palm Desert, CA 92211

Re: Pavement Management Plan 2026-2031 for Indian Wells Country Club Community
Creating an Unsurpassed Quality of Life for Your Residents

Dear Scott and Other Selection Committee Members,

HR Green Pacific, Inc. (HR Green), as a company and team members, have decades of experience providing pavement management services. Since its founding in 1956, Indian Wells Country Club has a been providing superior lifestyle and the highest quality amenities to its residents. We feel our civil engineering, pavement management expertise, and commitment serving communities align with the City of Indian Wells and District's mission to create and maintain the highest quality infrastructure for its residents. HR Green has the technical ability and the local knowledge required to meet and exceed your expectations.

Our Differentiators

Our team brings the following unique qualifications to the project:

- **Local Program Management and Quality Control Experience.** Our team will be led by Tim Jonasson, PE, a former Public Works Director and City Engineer for the City of La Quinta from 2002-2017 and has been a member of Indian Wells Country Club since 2022. Tim's extensive Coachella Valley experience on both public and private projects, extensive work with local utilities, and familiarity with the City of Indian Wells and Indian Wells Country Club, are ideal for providing pavement management services to the District. He will lead our efforts from our desert office on Village Court allowing easy coordination with your staff and contractors. Our subconsultants include Traffex Engineers who will provide the intersection evaluation and recommendations and GEOCON who will provide soils testing and street section analysis (as-needed) for any pavement reconstruction recommendations.
- **Comprehensive Civil Design, Transportation, Construction Management and Inspection Services.** HR Green brings a unique mix of site civil design associated with municipal facilities, intersection design, drainage, bridges, overlays and slurry seals. Our turn-key one-stop solution provides unparalleled competency to address your project needs in a timely and cost-effective manner. For example, in addition to our pavement experts we also have local construction managers that can assist with traffic control and other important aspects of construction that most paving projects require.
- **Cost Effectiveness of your Pavement Management Program.** Our staff, many of whom are former public works employees, can quickly analyze the District's needs and recommend cost-effective solutions that can fit any budget. Additionally, we will evaluate the resulting impacts for various budget scenarios for the District giving your team the ability to analyze "what if" scenarios depending on projected revenues. Additionally, having spent his career working directly for public agencies, Tim Jonasson, PE, fully understands the restrictions for assessing and spending under revenue under Proposition 218 and Proposition 13 within the State of California.

Depth of Firm. HR Green is an employee-owned ENR Top 500 design firm (#168 in 2023) with more than 700 engineers and supporting staff across eight states. Our Governmental Services team focuses on helping small and medium size public agencies and districts provide capital projects, public works, building and code enforcement services tailored to their needs. We provide seasoned engineering staff to a number of agencies similar to Indian Wells that desire reliable, high-quality, cost-effective design services for their capital projects.

HR Green lives our values of Building Communities. Improving Lives. We deliver solutions that make our clients successful and partner with our clients to find the right answers. Every HR Green staff member is an active contributor in building the communities and improving the lives of every person in every place that we are honored to work.

Our Fee Schedule shall remain valid for the duration of this contract, including the extensions.

We look forward to serving the City of Indian Wells. Should you have any questions or concerns, please feel free to contact our Project Manager, Tim Jonasson, PE, by phone at: 760.250.6722, or by email at: tjonasson@hrgreen.com.

Sincerely,

HR GREEN PACIFIC, INC.

Timothy R Jonasson

Timothy R. Jonasson, PE
Project Manager

Timothy J. Hartnett

Timothy J. Hartnett
President and Principal-in-Charge

HRGreen®
PACIFIC

Table of Contents

Qualifications for this Project

For more than 110 years, **HR Green** has been dedicated to providing the services our clients need to achieve success. We are a local company, with **an office in Palm Desert staffed by local engineers who serve the majority of cities in the Coachella Valley.** We collaborate across geographies and markets to provide engineering, technical and management solutions. With more than 700 employees nationwide, we have offices in nine states and provide services in Transportation, Water, Governmental Services, Land Development, Geospatial, and Construction. **One of America's longest operating design firms, HR Green is consistently ranked among ENR's Top 500 Design Firms in the United States.**

1913 HR Green has successfully partnered with municipalities across the nation since being established in Iowa in 1913.

60+ We have **60+ local staff in Southern California** for the City's immediate needs and we can draw from a national pool of more than **700 engineering professionals** as-needed.

Apply the Right Treatment, to the Right Pavement, at the Right Time

Every community has different needs, funding situations, political structures, and approaches to handling roadway maintenance. That is why HR Green specifically tailors each Pavement Management Plan to the individual needs and situations of our clients. We create "Living Documents" that grow and take shape with each community. Whether you need help getting started, or need long-term assistance, HR Green's experienced pavement engineers can lead the way.

The HR Green Advantage

Our team uses scenario-based planning to help communities determine an optimal approach to funding and project selection. We also review construction specifications, design standards, ordinances, policies, and maintenance practices. HR Green's experienced pavement engineers can prepare the Pavement Management Plan and assist your staff with a phased implementation.

HOW HR GREEN WILL BENEFIT INDIAN WELLS COUNTRY CLUB (FAMD)

We acknowledge that our responsibility is to maximize the benefits you receive from your investment. We have a vested interest in constantly looking for ways to give you more "bang for your buck", realizing this is even more important in this time of tighter budgets and higher energy and material costs. We do this by providing you with a highly experienced team, that thinks outside-the-box for solutions that are innovative yet budget-conscious.

We keep costs in control while maintaining high standards for quality and efficiency.

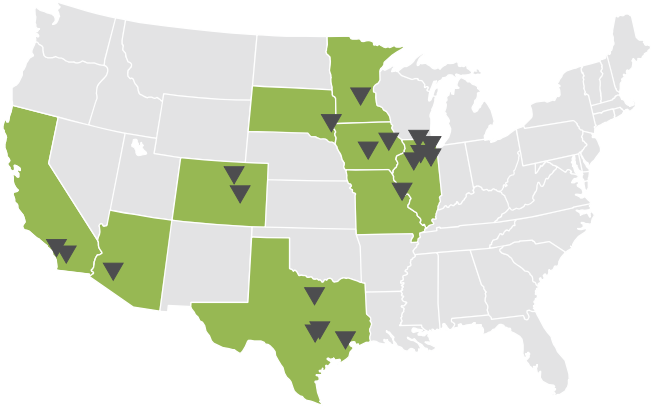
DIFFERENTIATORS

- Local office (Palm Desert)
- Familiarity with your needs
- Unparalleled knowledge of region / Serve most Coachella Valley cities
- Understanding of the uniqueness of paving challenges in the desert
- Pavement management action plan track record throughout the U.S. / Award-winning projects
- Nationally recognized pavement management thought leaders dedicated to your project
- Understanding of rubberized slurry seal and overlay products
- Staff have worked together on numerous Pavement Management projects

Experience and Qualifications

Established in 1913, HR Green is honored to be one of the nation's longest operating engineering firms. We collaborate across geographies and markets to provide the engineering, technical, and management solutions that connect and shape communities and are driven by the commitment of our clients.

> **For more than a century, HR Green has been dedicated to providing the services that our clients need to achieve success.**



19 Offices in 9 States

HR Green offices are located throughout the United States in Arizona, **California**, Colorado, Iowa, Illinois, Minnesota, Missouri, South Dakota, and Texas.

700+ EMPLOYEES

ENR TOP500 Design Firms

- HR Green has continued to climb the rankings on Engineering News Record's (ENR) annual lists of top design firms in the nation, coming in at **168**.

Comprehensive Services

ENGINEERING

We link project needs to community values, environmental and regulatory requirements, and infrastructure standards to design lasting solutions that meet the necessities of local citizens and businesses.

ENVIRONMENTAL

Whether your environmental needs include the remediation of brownfields sites to allow for redevelopment in your community, environmental compliance for infrastructure and facilities, or NEPA services for transportation infrastructure, we can provide your solutions.

BROADBAND

Unlock your infrastructure's hidden value, build a roadmap to success, bridge the digital divide, attract a Gigabit Economy, foster resilience, and help prepare your community or service area for the future.

GEOSPATIAL

Land surveying, GIS mapping, data collection, or field observations are often the crucial first step to any project. HR Green's geospatial professionals have a keen eye for detail and keep your project goals front of mind while adapting as required by site conditions.

GOVERNMENTAL SERVICES

Our Governmental Services professionals combine creativity with reliability to provide staff augmentation and multi-faceted consulting services to local governments. We provide Engineering, Public Works, Planning and Building Departments with staff to meet the variable workloads without the normal long-term costs.

LAND DEVELOPMENT

We combine technical expertise, a passion for service, and business savvy to make your projects highly successful. Our professionals provide land planning, engineering, and landscape architectural services in a single, integrated team to help streamline the design process.

Project Understanding

The FAMD maintains approximately 2.4 million square feet (13 miles) of pavement and is committed to having high quality street infrastructure. Emphasizing, maintaining, and improving your transportation system is vital to preserving the current standard of living for residents. Acknowledging that the most expensive part of any infrastructure life cycle is replacement, minimizing overall costs through proactive investment in routine maintenance, will prolong pavement life-cycles.

As a consultant with extensive infrastructure asset management experience, HR Green has been providing **award-winning pavement management plans** and assisting communities administer cost-efficient capital improvement programs for many years. We address client needs by leveraging datasets and advanced technologies using a proven approach informed by industry experience. Many of our staff members are former public works employees, familiar with the challenges placed on cities like Indian Wells and they will offer the practical solutions you need.

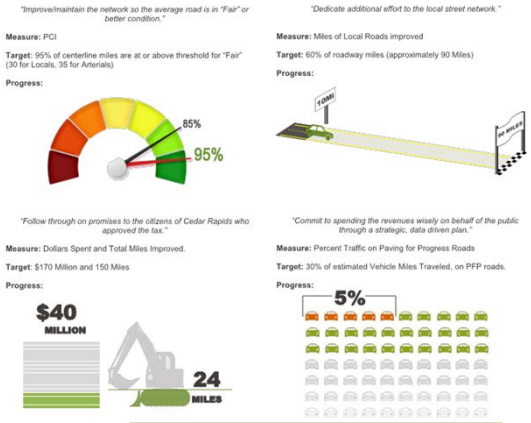
Every community has different infrastructure needs, funding situations, political structures, and approaches to handling roadway maintenance. That is why HR Green specifically tailors each Pavement Management Plan to the individual circumstances of our clients. We use **data-driven, scenario-based planning** to help communities determine the optimal approach to funding and project selection with a schedule of suggested improvements. We create **Living Documents** that grow and take shape with each community as the project progresses, even past our time directly working with the client. This allows you to effectively determine **the right treatment, for the right street, at the right time**.

COMPREHENSIVE PAVEMENT MANAGEMENT SERVICES

- Inventory + Condition Assessment
- Maintenance, Rehabilitation, Reconstruction Strategies + Standards
- Budgeting + Goal Setting
- Decision Making Framework Creation
- Software Implementation
- Improvement Prioritization
- Capital Improvement Planning
- Performance Tracking
- Public Involvement

The project will consist of:

- **Assessing** FAMD's standards and specifications for pavement construction and maintenance practices.
- **Understanding** current operation, maintenance, and rehabilitation practices and making recommendations for guidance to help achieve long-lasting pavements.
- **Reviewing** and performing an audit of FAMD's street system, which consists of approximately 13 miles of streets. The inventory will look specifically for completeness, dimensions, and characteristics.
- **Collecting Data** and using a streamlined process combined with powerful and consistent methods through advanced machine learning, data analytics, and data visualization. **Tiger Eye Engineering** will subconsult to HR Green for Data Collection and Analysis. Their cutting-edge machine learningbased software is world-class and their staff members have more than 100 years collective experience in pavement engineering, evaluation and management.
- **Evaluating** the system's current roadway conditions based on the data and outputs from the data collection.
- **Establishing** a comprehensive toolbox of minor and major rehabilitation/renovation strategies and reconstruction alternatives, costs, and the thresholds that will trigger their selection to be used in the data analysis and projections and their life cycle costs.
- **Determining** any causes of early deterioration of streets, such as subgrade issues.



- We apply innovative cost-saving solutions and treatments, providing design experience and support to communities.
- HR Green's pavement engineering services cover all climates and conditions throughout the US, from Illinois to California, and from Texas to Minnesota.

- **Developing** sustainable reconstruction and rehabilitation schedules with annualized costs for the following scenarios:
  - Improvements to maintain existing Pavement Condition Index (PCI) level
  - Varying annual funding levels with the resulting future PCI level
  - Annual funding required to achieve various PCI levels
  - Determining with your staff the desired PCI levels and annual funding
- **Creating** a 5-Year Pavement Improvement Plan, including a recommended list of repairs and maintenance that emphasizes doing the "right project on the right street segment at the right time".
- **Analyzing Intersections** to ensure the right solution is chosen for the specifics of each intersection. **Nazir Lalani, PE, TE, of Traffex Engineering, Inc**., will be performing these services as a subconsultant to HR Green.

Project Approach

HR Green proposes the following evaluation methodology.

Design, Specifications, and Maintenance Analysis

HR Green will meet with the FAMD staff to review and discuss the current design standards, specifications, and maintenance practices. If necessary, HR Green will then provide recommendations for changes to extend the life of pavements, utilizing our team's vast experience with long-lasting pavement system design.

Automated Pavement Inspection

Tiger Eye Engineering's automated pavement inspectionand rating system eliminates "feet-on-the-ground" survey systems, avoids cumbersome survey equipment, and does not involve potentially-biased human results. This automated pavement inspection includes roughness of roadways and various pavement distresses such as rutting or cracking. HR Green will then analyze this data utilizing **pavement management software**.

Ground-Truth

It is important to ground-truth our data analysis through visual inspection and augment the data with observations on other infrastructure, such as curb issues. HR Green will inspect a sample of roadways and record observations using photo data. The photo dataset will then be compared against the automated data and assessed for accuracy and checked for systematic error.

Historical Review

HR Green will perform a review of all plans and maintenance histories provided by the FAMD to create a comprehensive inventory. Bid tabulation histories will be compiled into typical "all-in" costs used to develop accurate planning-level project estimates.

Trusted Financial Advisors

- HR Green's Pavement Management group has helped communities' program over $700 million in streets projects across the nation.

CITY OF HEMET

Citywide Pavement Rehabilitation Program

- The City of Hemet hired HR Green to prepare a Citywide Pavement Management Plan. This included developing a comprehensive inventory of the City's street system and a 10-Year maintenance/replacement schedule with annualized costs. The Plan identified which specific road segments need treatment to maximize funding efforts and help the City effectively manage its roadway assets. Over the last two years HR Green has addressed the backlog of pavement management needs in the City of Hemet. This has included the design and construction management for 13 slurry seal, overlay, or reconstruction projects citywide.

Intersection Survey and Analysis

HR Green's team will perform a survey of all intersections within the IWCC to include the following:

1. Evaluation of all approaches for site distance, approach speeds, lane geometrics, etc.
2. Review available accident history and collision patterns to determine problematic movements.
3. Develop potential solutions for mitigating most frequent accident types (i.e., broadsiding, side swipes, etc.)
4. Recommend intersection improvement(s) based on most improved safety for lowest cost and minimal as possible impacts to adjacent properties.
5. If requested, conduct an annual update to determine if the mitigation measures implemented were effective at reducing collisions.

Assumptions and limitations

HR Green's team will review and photograph the approximate 74 intersections shown in the RFP. Since the IWCC is composed entirely of private streets there may be little or no police or other formal accident reports for this analysis in which case HR Green's traffic engineer will rely on traffic issues identified by IWCC management and other reliable sources for the intersection analysis. HR Green's traffic engineer will assess the geometrics and sight distance for each intersection putting them into one of four categories: no improvements recommended, minor modification (trim or remove bushes, etc.), major modification (remove palm tree, wall, etc.) and complete redesign of the intersection (speed humps, speed tables, advanced signage, etc.) The last classification should only be necessary for intersections on the main drives - Club Drive, Manitou Drive and Iroquois Drive where vehicle speeds may be an issue. A draft report including the intersection classification and preliminary recommendations will be prepared for the board's review prior to preparing final recommendations. HR Green's team will be available for up to two one-hour board meetings to answer questions on the final report and recommendations.

Forward-Thinking (Monitoring)

Pavement management works best as an ongoing process, using "Living Documents" and monitoring goals and performance metrics. We have been continuously involved in programs with communities since 2013, providing major updates to their programs and reporting on PFP's effectivenesss.

Our Subconsultants for this Project

Tiger Eye Engineering LLC (TEE) - Data Collection

TEE uses cutting-edge machine learning based software to provide pavement evaluation services for Indian Wells Country Club. They provide automated pavement inspection and rating system to deliver an efficient, cost-effective, data-driven approach for infrastructure assessment and integrated asset management by:

- Eliminating foot-on-ground surveys, which are dangerous, expensive, biased across inspectors, and which result in section-to-section and year-to-year inconsistencies.
- Avoiding cumbersome survey equipment, which is expensive, has limited availability, leading to schedule delays, relies on outdated hardware/software and externally authored computer codes, and is difficult to troubleshoot in the field.
- Not involving biased/outsourced distress detections, as their artificial intelligence (AI)-based system avoids human assessment of collected data, avoiding biased results. Their results are rigorously validated by TEE's highly experienced pavement engineers who have more than 100 years of collective experience in pavement engineering, evaluation and management.

TEE's approach involves a streamlined data collection process combined with powerful and consistent pavement evaluation through advanced machine learning, data analytics, and data visualization. This automated pavement evaluation software suite was developed by coding and integrating several machine learning and deep learning techniques for distress detection and pavement condition assessment.

Their pavement imaging system includes high-resolution 360 degree cameras, high-resolution downward facing cameras, a stereo camera, a GPS unit, and accelerometers to capture pavement roughness. AI technology combined with deep learning is applied to detect type, extent, and severity of pavement distresses, which gets organized into a user-friendly dashboard. This platform provides options for users to conduct a data query, set up interactive data visualization maps, and create PCI heat maps for quick identification of problematic areas.

Through this process, the FAMD will receive the data it needs to make data-driven, accurate assessments of its road infrastructure network to improve overall pavement condition while stretching its maintenance dollars.

Traffex Engineers, Inc. - Intersection Evaluation

Nazir Lalani, PE, TE with Traffex Engineers, Inc., **is nationally and internationally recognized for his contributions to transportation engineering including traffic signal studies and operations throughout the Coachella Valley.** He will serve the FAMD as the HR Green's subconsultant for Intersection Evaluation. Nazir is a resident of the Coachella Valley and maintains a local office in the Valley.

Nazir developed and implemented NTMP manuals for the City of Ventura, the City of Plano (TX), the County of Ventura, the County of Los Angeles and the City of La Quinta. The work in the City of Ventura included road closures and in the City of La Quinta, a variety of traffic calming measures were implemented in the Old Town/Downtown area.

Nazir has prepared Annual Traffic Safety Reports for the past 30 years for various agencies to identify intersections and street segments with the poorest history in terms of collisions and other safety related problems. After these were identified and prioritized, the reports recommended safety improvements and monitored their effectiveness after they were implemented. Nazir also prepared Traffic Safety Evaluations for over 70 agencies during his tenure as a Safety Expert for UC Berkeley Institute of Transportation Studies including Native American Tribal Communities.

He has also served in various local governments from California to Colorado, and understands the intricacies of operating and navigating local municipalities. He is very familiar with the challenges currently facing the numerous Coachella Valley cities with whom he works, and has information and knowledge that will prove useful as the FAMD moves forward with the project.

List of Lead Personnel

HR Green is pleased to provide this experienced and talented team to the FAMD. The team will be lead by your Primary Point of Contact, Tim Jonasson, PE, our assigned Project Manager. Time will see that all resources are allocated to your projects as needed, serve as part of our QA/QC team, and will be available for requested meetings with your staff. His resume and work experience, along with that of the other key personnel appear on the following pages.

Fire Access Maintenance District #1

Principal-in-Charge

Timothy Hartnett

Project Manager

Tim Jonasson, PE

Technical Advisor

Larry Stevens, PE, PWLF

HR Green's Team

Data Analyst

Monika Kazmierski

Intersection Evaluation

Traffex Engineers, Inc.

Nazir Lalani, PE, TE

Data Collection

Tiger Eye Engineers

Geotechnical Evaluation (As Needed)

GEOCON

Additional Staff Available as needed

Resumes of Key Personnel

Tim Jonasson, PE

Project Manager

A long-time Coachella Valley resident, Tim has 33 years of development management, plan review oversight, design, CIP program management, design management, NPDES/water quality compliance, and construction management experience for municipal public improvement projects, including roads, drainage, water, sewer, traffic signals, grading, parks, recreational facilities, parking lots and parking structures. He has served as construction manager and design engineer on a variety of municipal improvement projects including bridge construction, street and landscape improvements, water and wastewater improvements, parks construction and rehabilitation, golf course improvements and pier reconstruction.

EXPERIENCE

33 Years

EDUCATION

Master, Business Administration

BS, Civil Engineering

REGISTRATION / LICENSE

Registered Professional Engineer, CA #45843

SELECTED PROJECT EXPERIENCE

▷ City Engineer Services to the Coachella Valley

Tim currently provides a variety of city engineer and public works director services for several agencies in the Coachella Valley. Tim has served as Palm Desert's Interim Public Works Director managing the day-to-day departmental operations, which included traffic signal improvements and operations. Currently, he manages the provision of a variety of HR Green consulting services to local agencies, including construction management, inspection, traffic engineering, and building services.

▷ Public Works Director/City Engineer, City of La Quinta

As La Quinta's Public Works Director/City Engineer for 15 years, Tim oversaw a Capital Improvement Program (CIP) budget of $15M and a department operating budget of $5.3M. He provided expertise and guidance to the executive team and City Council with additional responsibility for flood plain administration, storm water protection compliance, coordination with SunLine Transit Agency, and approval of plans for capital projects and private development. Served on various transportation committees and subcommittees for CVAG including chairing the CV Sync Subcommittee which developed the cooperative agreement between all of member agencies.

From 2002 to 2017 project highlights included:

- Procuring multiple multi-million-dollar federal Highway Bridge Replacement Program (HBBR) grants to design and construct the Eisenhower Drive, Jefferson Street, Dune Palms Road and Adams Street Bridge projects.
- Overseeing the design of numerous double and triple left turn intersection modifications to improve capacity and level of service of the intersection.
- Performing the analysis for CV Link alignment along the White-Water River through the City including modification to Adams Street and Dune Palms Bridge designs and Point Happy Trail head improvements.
- In 2017, leading the City's team that was awarded a $7.3 million Active Transportation Program (ATP) grant for constructing five roundabouts, bicycle lanes and pedestrian crossings to the City's downtown village.
- Also in 2017, led City's efforts to secure a nearly $2 million Highway Safety Improvement Program (HSIP) grant to coordinate traffic signals on all major corridors by improving communications through fiber optic cabling.

Timothy Hartnett

President and Principal-in-Charge

EXPERIENCE

36 Years

EDUCATION

BS, Engineering Design

PROFESSIONAL AFFILIATIONS

American Council of Engineering Companies

Over the past 36 years, Tim has provided ongoing municipal engineering and program/project management services to key agencies and municipalities throughout the country, guiding them through periods of extreme growth. **Tim currently serves as the President of HR Green's Governmental Services Business Line and Principal-in-Charge for multi-disciplined consulting services throughout Southern California**. He has overseen the delivery of pavement management programs and roadway improvements for public agencies around the country. He has provided subdivision and site improvement review/approval processing from concept plan through the final plat in accordance with the municipality's Municipal Code, Engineering Standards, applicable development agreement and annexation agreements. He supports strategic decision-making by presenting information to councils, boards, and committees; facilitating public engagement discussions; meeting with developers; and informing residents and business owners of project schedules.

Tim has considerable experience performing critical services, such as grants and funding procurement for roadway, parks and facility improvements, construction observation, general engineering advisory services, water and wastewater master planning, capital involvement planning and implementation, organizational/operational assessments, and staff augmentation and support. Tim also acts as the lead contact between HR Green clients and the various design/field staff members executing all projects within the communities he represents.

Larry Stevens, PE, PWLF

Technical Advisor

EXPERIENCE

47 Years

EDUCATION

BS, Civil Engineering

REGISTRATION / LICENSE

Professional Engineer, IA #09350

Public Works Leadership Fellow

Larry has enjoyed a long and distinguished career in Municipal Engineering. **He served from 2003 to 2009 as Director of the Iowa Statewide Urban Design and Specifications** (SUDAS) Program at Iowa State University. Prior to that, he worked for the City of Oskaloosa, Iowa for 22 years,filling the roles of City Engineer and Public Works Director, and in Grinnell, Iowa for five years as the Assistant City Engineer. **Larry is a past member of the Board of Directors of the American Public Works Association (APWA), serving as the Region VI Director and then President in 2014, and has served in every officer position of the Iowa chapter, including the presidency**. He is also a past Board member of the Institute for Sustainable Infrastructure, which developed the Envision civil infrastructure sustainability rating system.

His experience also includes extensive research on subjects relevant to the infrastructure needs of municipalities, including roadway subgrades and subbases, utility cut repair techniques and design of rural and urban subdivisions. With HR Green since 2009, Larry provides municipal engineering services to some of the firm's key clients, including implementation of several pavement management plans.

ACEC Engineering Excellence Award

SELECTED PROJECT EXPERIENCE

- **Paving for Progress Capital Improvement 10 Year Plan, City of Cedar Rapids, IA (ACEC Engineering Achievement Award in Transportation)**
- **City Street Pavement and Specifications Study, City of Clive, IA (ACEC Engineering Excellence Award (2017)**.
- **Pavement Management Plan, City of Iowa City, IA**

Monika Kazmierski

Data Analyst

Monika has more than eight years of experience as a data and management analyst, with more than four years of experience with local governments. **She has provided innovative approaches to track and improve department functions, developed and managed communication programs related to policies and procedures, and assisted local governments with daily operations and maintenance of assets**. She has helped municipalities with creating master infrastructure plans to address anticipated asset demands and needs. In addition, she has extensive experience with Cartegraph and Power BI Desktop for Business Intelligence. Monika is also a member of the American Public Works Association (APWA) Asset Management Committee's Knowledge Team.

EXPERIENCE

8 Years

EDUCATION

MS, Earth and Environmental Resources Management

BS, Zoology

CERTIFICATIONS

IAM Certificate in Asset Management

Public Works Management Institute Certificate

SELECTED PROJECT EXPERIENCE

- **Vision and Planning Analyst, Coachella Valley Association of Governments (CVAG)**
- **Pavement Management Program, City of Hemet**
- **Pavement Management Study, Cities of Altoona, IA and Hinsdale, IL**
- **Management Analyst, Village of Buffalo Grove, IL**
- **13 County Broadband Study, Houston-Galveston Area Council (H-GAC), Houston, TX**

Nazir Lalani, PE, TE (Traffex Engineers, Inc.)

Intersection Evaluation

Nazir Lalani is President of Traffex Engineers Inc., and is currently a consultant to local agencies and provides support to the traffic engineering staff. He is a licensed Traffic and Civil engineer in California. Nazir served as chair of various Institute of Transportation Engineers (ITE) committees and is a course instructor for UC Berkeley which includes traffic calming topics.

Nazir developed and implemented NTMP manuals for the City of Ventura, the City of Plano (TX), the County of Ventura, the County of Los Angeles and the City of La Quinta. The work in the City of Ventura included road closures and in the City of La Quinta, a variety of traffic calming measures were implemented in the Old Town/Downtown area.

Nazir has prepared Annual Traffic Safety Reports for the past 30 years for various agencies to identify intersections and street segments with the poorest history in terms of collisions and other safety related problems. After these were identified and prioritized, the reports recommended safety improvements and monitored their effectiveness after they were implemented. Nazir also prepared Traffic Safety Evaluations for over 70 agencies during his tenure as a Safety Expert for UC Berkeley Institute of Transportation Studies including Native American Tribal Communities.

Nazir served a member of the ITE on the International Board of Direction and as ITE's 1999 International President. **Nazir has received a number of awards from ITE including the Burton W. Marsh Award, the Edmund R. Ricker Traffic Safety Award and the ITE Western District Lifetime Achievement Award in 2011**.

EXPERIENCE

30+ Years

EDUCATION

MS, Civil Engineering

Post Graduate Studies - Highway/Traffic Engineering

BS, Chemical Engineering

REGISTRATION / LICENSE

Professional Engineer, CA #40433

Registered Traffic Engineer, CA #1415

La Quinta Village Complete Streets Program

City of La Quinta

REFERENCE

Bryan McKinney
Public Works Director / City Engineer

City of La Quinta
78-495 Calle Tampico,
La Quinta, CA 92253

P: 760.777.7045
E: bmckinney@laquinta.gov

The City of La Quinta's Village or downtown has an array of restaurants, boutique shops, and a hotel in addition to a city museum, library, wellness center, city hall and civic campus. Circulation is provided by a combination of public and private streets and alleyways that were largely designed to accommodate vehicular traffic. Through a variety of federal and state grants in 2017 the City's Design and Development Department, led by Tim Jonasson, PE, the City was awarded a "complete streets" project facilitating multi modal travel in the La Quinta Village including bicycles, pedestrians and golf carts. This project, through a combination of additional bike/ golf cart lane striping, raised crosswalks, curb extensions and roundabouts, was able to slow average vehicular traffic speeds to allow speed limits to be lowered throughout the downtown (village) area. These improvements helped increase pedestrian, bicycle and golf cart access by calming vehicle speeds allowing the city to expand its golf cart and bicycle lanes into the village where higher average vehicle speeds had previously prohibited the city from allowing golf cart access. The result was much safer access for all modes of travel, including vehicles, and national recognition for the City of La Quinta by the Federal Highways Administration as well as the American Public Works Association who awarded it Project of the Year honors in 2021.

For La Quinta's project raised cross walks, including pedestrian refuge islands, bike and golf cart lanes, speed humps and other traffic calming measures were all reviewed and approved by Nazir Lalani, PE of Traffex Engineers who was the city traffic engineer at the time. By getting vehicles to slow down voluntarily safety for all modes of travel improved dramatically creating a welcome environment for pedestrians, shoppers, and tourists to La Quinta's downtown. Intersection safety was paramount in this design the greatest number of conflict points typically occur between turning and non-turning motorists, bicycles and golf carts at intersections. Sight line analysis to remove obstructions to approaching motorists, advance signage and clear striping are all factors to consider for intersection design particularly where traffic calming is desired. However, modifications to intersection and roadway geometrics should not be done without first engaging the residents who will be impacted by the improvements to create a better understanding of traffic calming in general and the specific goal(s) of a particular improvement under consideration. In La Quinta's case extensive public outreach was done, workshops were held and demonstrations using artificial intelligence were held to raise awareness of what the project would ultimately entail. Not all projects require this, but due to the high number of potential users of these facilities, La Quinta's city council wanted as extensive public outreach as possible. The result was resounding support of the project that has helped reinvigorate the La Quinta Village as a destination for visitors and residents alike.

Pavement Management Program

City of Jurupa Valley

Upon the incorporation of the City of Jurupa Valley, the City faced substandard pavement along arterials and residential streets citywide.

HR Green engineers developed a Pavement Management Program for the City, including a comprehensive automated condition assessment, implementation of the StreetSaver software, treatment alternative recommendations, and a Capital Improvement Plan (CIP).

Our staff audited existing GIS information from the City, and other public sources, to create an accurate pavement inventory and upload that into the StreetSaver pavement management software. We then assisted the City in developing a Request for Proposal to select an automated data collection firm to assess the conditions within the City.

HR Green hired IMS Consulting as a data collection sub-consultant who drove and analyzed the condition of 340 miles of streets. HR Green then used that data and StreetSaver to develop a number of budgetary and condition-based planning scenarios. Finally, we recommended potential treatment alternatives and developed a prioritized list of recommended projects to be completed over the following ten years.

The City received a detailed 10-year CIP to make well-informed decisions and prioritize recommended pavement improvements. Additionally, HR Green procured funding; expedited the programming, design, and construction of pavement rehabilitation projects citywide; and leveraged different pavement applications to save time and money, improve safety, and comply with ADA requirements.

REFERENCE

Rod Butler
City Manager

City of Jurupa Valley
8930 Limonite Avenue
Jurupa Valley, CA 92509

P: 951.332.6464
E: rbutler@jurupavalley.org

"The City of Jurupa Valley continues to be very pleased with the services that we are receiving from HR Green. HR Green provides highly competent and experienced staff at reasonable hourly rates. In an active and fast-growing city like Jurupa Valley, being able to supplement our internal team with well-managed contract staff makes us all the more effective in serving our residents and the development community."

Rod Butler, City Manager,
City of Jurupa Valley

Pavement Management Program

City of Palos Verdes Estates

HR Green performed a manual condition survey of 73.4 Centerline Miles of roads maintained by the City of Palos Verdes Estates, then developed a pavement management program that included implementing the City's chosen software solution and developing a multi-year capital improvement plan to address the roadway repair, rehabilitation, and reconstruction needs.

After auditing the existing GIS data, and available historical records, the survey was performed using the MTC software MobileRater™ using the modified ASTM d6433 methodology. Collected data were uploaded into the pavement management software StreetSaver™ which was calibrated to the City's specifications and then used to run a variety of budgetary planning scenarios. HR Green used the results to make recommendations to rehabilitation and reconstruction options used in the City as well as propose an ideal operating budget. As part of the recommended operating budget, HRG prepared a list of recommended projects and estimated costs to be completed over the following seven years.

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2.2. StreetSaver

A Pavement Management Software (PMS) is a decision-making tool that assists a City in making cost-effective decisions related to the maintenance and rehabilitation of roadway pavements. It provides a process or system for rating pavement condition, establishing a consistent maintenance and repair schedule, and evaluating the effectiveness of maintenance treatment strategies.

The PMS used by the City of Palos Verdes Estates is called "StreetSaver". This program was developed by the Metropolitan Transportation Commission (MTC), which is the transportation planning, coordinating, and financing agency for the nine San Francisco Bay Area counties (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma). As such, all 109 agencies in the bay-area use StreetSaver. Other users of the PMS from outside the bay-region include over 300 public and private agencies including cities, counties (Riverside, Santa Barbara, San Diego), universities, and consulting firms in Southern California.

StreetSaver

2.2.1. Pavement Condition Index

In the MTC StreetSaver software, the pavement condition assessment is based on using the collected data to determine the type, amount, and severity of surface distresses for each segment of pavement being managed. The distress data is used to calculate a Pavement Condition Index (PCI), which is based on a visual survey of the pavement and a numerical index between 0 and 100, with 0 being defined as failed roadway and 100 representing an excellent pavement (newly paved).

2.2.2. Condition Thresholds

Initial condition thresholds were created after careful research of similar pavement management programs, condition rating systems, and analysis of the condition data. These are used to determine when roads should be repaired and what target condition level the Palos Verdes Estates Road Network ought to maintain.

Figure 13: Condition Thresholds from StreetSaver

StreetSaver uses 4 condition categories, Very Good, Good, Poor, and Very Poor.

"Very Good" pavements (PCI>70) will only ever receive preventative maintenance. Maintenance activities can also only ever improve a street to maximum PCI value of 90, values above 90 can only be achieved through new construction or Major Rehabilitation treatments.

Figure 14: Category I Street: "Very Good" Condition (Via Fernandez)

Pavements in "Good" (PCI 50-70) condition are separated into two categories: Load and Non-Load. These categories relate to the root causes of the surface distresses observed during the data collection process. Pavements exhibiting normal distresses, such as surface weathering, raveling (loss of aggregate), polished aggregate, or minor transverse and longitudinal cracking, are categorized as "Non-Load" because their distresses are not typically caused by vehicle traffic and weight nor excessive weight. Good pavements in the "Load" category, in turn, are those that have distresses such as rutting or alligator cracking that may be caused by vehicle traffic.

Figure 15: Category II Street: "Good" Condition, Non-Load (Dalton Road)

The City of Palos Verdes Estates | Pavement Management Program & 7-Year Capital Improvement Plan | FY2017/2018

Prepared by HRGreen

REFERENCE

Ken Rukavina, PE
Public Works Director/City Engineer (Retired)

City of Palos Verde Estates
340 Palos Verdes Dr. West
Palos Verdes Estates, CA 90274

P: 310.544.5228
E: krukavina@rpvca.gov

"HR Green has provided a wide scope of resources, shown initiative to optimize a customer-centric service model, a capacity to identify and implement recommendations, leveraged new technologies to streamline operational efficiencies, and a strong commitment and ability to meet the City's expectations."

Ken Rukavina, PE I Former Acting City Manager/Public Works Director/City Engineer (Retired)

Paving for Progress

City of Cedar Rapids, Iowa

ACEC Engineering Achievement Award, Transportation Category - 2017

In 2014 the citizens of Cedar Rapids approved an extension on a 1% Local Option Sales Tax (LOST) specifically for maintenance, repair, construction, and reconstruction of public streets. This $180 million initiative was branded "Paving for Progress." HR Green was retained to assist with a comprehensive, 10-year list of prioritized projects.

HR Green was contracted to evaluate deteriorating pavement throughout the City and exercise pavement management methodology to inventory pavement conditions and establish thresholds throughout the City's 600+ miles of paved roads. HR Green, with input from the City, established thresholds and created trigger conditions to determine what treatments were applied. This was an exercise in refining informal definitions and evaluation processes into something more abstract and objective in nature.

This award-winning project involved utilizing PASER data collection methodology combined with GIS technology, and Deighton Total Infrastructure Management System (dTIMS) software technology to gather and analyze data. The analysis included modeling the pavement performance over the 10-year program and determining optimal treatments for each road segment, and when to apply them for the whole network, covering just over 600 miles of roadway.

By utilizing dTIMS, HR Green conducted a life cycle cost analysis and determined the most cost effective, time-sensitive plan possible to improve the City of Cedar Rapids' system. Following analysis, maintenance and reconstruction strategies were presented, and a prioritization strategy was developed that amended the City's Capital Improvement Plan (CIP). HR Green also tracked the projects and provided performance measurement metrics that tracked progress and effectiveness of the program.

The project allowed the City to fully understand the pavement conditions of poor and deteriorating surfaces and deploy a strategy to extend pavement life. HR Green's recommended reconstructions align with the City's initiative to leverage the greatest results from the LOST funds by implementing Pavement Management Techniques to improve the overall quality of the network.

REFERENCE

Doug Wilson, PE

City of Cedar Rapids
500 15th Avenue SW
Cedar Rapids, IA 52404

P: 319.286.5141
E: dwilson@cedar-rapids.org

Pavement Management Plan

Village of Hinsdale, Illinois

In 2008, the Village of Hinsdale, Illinois embarked upon a 15-year Master Infrastructure Plan (MIP) to address all their anticipated infrastructure needs to repair or replace failing roads. With the original MIP ending in 2024, HR Green was retained by the Village to re-establish the program, develop a new 15-year plan for its street program, and modernize the program using industry standard software.

REFERENCE

Matthew Lew, PE, LEED AP
Village Engineer

Village of Hinsdale
19 E. Chicago Avenue
Hinsdale, Illinois 60521

P: 630.789.7039
E: mlew@villageofhinsdale.org

Program Goals:

- Develop a comprehensive inventory of the Village's street system.
- Review the Village's standards for street pavement design and construction/maintenance practices.
- Evaluate the system's current roadway conditions using data collected.
- Determine major rehabilitation and reconstruction alternatives and trigger threshold for use in the data analysis and projections.
- Create a pavement management model using the condition data.
- Develop 15-year maintenance/replacement schedules with annualized costs for various funding levels and scenarios.

HR Green partnered with Applied Research Associates (ARA) to collect pavement condition data using a truck-mounted semi-automated system. Using the condition data, existing Village resources, and input from Village staff, a pavement management model was created using the StreetSaver™ software. This model was then used to analyze various funding and performance-based scenarios for the Hinsdale capital improvement program. The findings of the investigation determined that the preferred annual construction budget would be approximately $2.5 million for long-term sustainability and cost effectiveness. This project helped the Village develop an objective, data driven, and sustainable approach to managing its roadway assets, as well as to budget appropriately for future pavement needs. Consisting of 491 projects, the recommended program contained 40 miles of roads or approximately 40% of the Village.

By utilizing StreetSaver, HR Green was able to demonstrate that there are only marginal benefits to budgets over $4 million per year, as any expenditures over that level are done just to use up the budget, not out of need. Budgets under $2 million per year revealed a noticeable decline in pavement condition, suggesting an annual budget between $2 million and $4 million was ideal for the Village. The selected $2.5 million budget helped lower the cost of the new MIP by 20% as compared to the previous MIP. This helped the Village get closer to a sustainable pavement management program focused on being proactive with preventive planning and treatment, rather than reactive work.

Anticipated Project Schedule - 2024

TASK	April				May				June				July				Aug
Project Initiation																	
Notice to Proceed (Apr 1, 2024)																	
Kickoff																	
Standards Review																	
Historical Information Compilation																	
Fieldwork																	
Tiger Eye (TEE) Pavement Condition Survey																	
Data Processing																	
Data QA/QC																	
Data Deliverable Formatted																	
Software Implementation																	
Decision Tree																	
Planning Level Costs																	
Document Project History																	
Data Import (Condition Re-Assessment)																	
Scenario Modeling																	
Draft & CIP																	
Methodology																	
Work History																	
Design, Maintenance, and Rehab Strategy Recommendations																	
Existing Conditions Analysis																	
Scenario Modeling Conclusions																	
Proposed Five Year Construction Program																	
Final Plan																	
Draft Report (by end of June)																	
Client Review Meeting																	
Client Presentation (Optional)																	
Final Draft & Comment Response Form																	

Pricing

Fee Proposal

Task	Fee
Pavement Management Report with recommended preventive maintenance and drainage improvements	$28,000.00
Intersection safety analysis for 74 intersections with recommended improvements in report format, 2 one-hour meeting to the board	$15,000.00
5-year recommended maintenance repair schedule with engineer's estimate of approximate construction costs	$3,500.00

Additional Costs

Task	Fee
Traffic engineering beyond intersection analysis	$215.00/Hr
Detailed engineering drainage design services	See attached HR Green Rate Sheet

Direct/Reimbursable Expenses and Subconsultants: Reimbursement for direct expenses, as listed below, incurred in connection with the work beyond the scope of work as described in the RFP, will be at cost for items such as:

1. Maps, photographs, reproductions, printing, equipment rental and special supplies related to the work.
2. Subconsultants and other outside services, if needed, will include a 15% markup for administration.
3. Specific telecommunications and delivery charges.
4. Special fees, insurance, permits, and licenses applicable to the work.
5. Outside computer processing, computation, and proprietary programs purchased for the work.
6. Mileage and vehicle costs directly related to agency services.
7. Travel expenses (e.g., hotel, meals, transportation, etc.)

Our hourly fees/rates for this project shall remain effective through December 31, 2024 and may be adjusted annually thereafter as negotiated with and agreed to by the agency.

Assumptions and Limitations:

1. Access to the IWCC streets will be provided to HR Green within 24 notice by the FAMD. No permit will be required for inspections.

2. Geotechnical investigation costs are not included in this proposal however can be provided by HR Green's subconsultant at additional cost if requested by the FAMD. See attached GEOCON rate sheet.

3. Additional traffic engineering, if requested, will be billed at $215/hour

4. Additional engineering services, if requested, will be billed at the attached HR Green rates.

HR GREEN

Billing Rate Schedule
Effective January 1, 2024

Professional Services	Billing Rate Range
Principal	$250- $370
Senior Professional	$250- $370
Professional	$170- $250
Junior Professional	$100- $175
Senior Technician	$130- $180
Technician	$75- $145
Senior Field Personnel	$140- $225
Field Personnel	$100- $170
Junior Field Personnel	$75- $125
Administrative Coordinator	$75-$130
Administrative	$75- $130
Corporate Admin	$100- $160
Operators/Interns	$75- $150

Reimbursable Expenses

1. All materials and supplies used in the performance of work on this project will be billed at cost plus 10%.
2. Auto mileage will be charged per the standard mileage reimbursement rate established by the Internal Revenue Service. Survey and construction vehicle mileage will be charged on the basis of $0.90 per mile or $85.00 per day.
3. Charges for sub-consultants will be billed at their invoice cost plus 15%.
4. A rate of $6.00 will be charged per HR Green labor hour for a technology and communication fee.
5. All other direct expenses will be invoiced at cost plus 10%.

GEOCON
WEST, INC.
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

2023 SCHEDULE OF FEES

PROFESSIONAL SERVICES

Word Processor/Non-Technical Assistant/Draftsman/Dispatcher	$95/hr
Engineering Assistant/Lab Technician	95/hr
Engineering Field Technician (Earthwork/Compaction Testing/Backfill)	*85/hr
Special Inspector (Concrete, Rebar, Masonry, Welding, etc.)	*90/hr
Engineering Inspector (Bottom Approval / Shoring / Foundations / Piles)	*110/hr
LA City Deputy Grading Inspector (Bottom Approval / Shoring / Foundations / Piles)	*125/hr
Staff Engineer/Geologist	*125/hr
Senior Staff Engineer/Geologist	*135/hr
Project Engineer/Geologist	*145/hr
Senior Project Engineer/Geologist	*155/hr
Senior Engineer/Geologist	*175/hr
Associate Engineer/Geologist	*200/hr
Principal Engineer/Geologist/Litigation Support	400/hr
Attorney Fees (General)	500/hr
Deposition or Court Appearance	550/hr
Overtime/Saturday Rate/Night Rate (7pm – 6am w/ 8-Hour minimum per call out)	1.5 X Regular Hourly Rate
Sunday and Holiday Rate	2 X Regular Hourly Rate

Minimum Field Services Fee per call-out, 4 Hours (if 4 hours or less), 8 Hours (if more than 4 hours and less than 8 Hours)
Short-Notice Cancellation, 4 Hours (if after 4 pm of the day prior to the scheduled inspection time)
Short-Notice Cancellation, 4 Hours (upon or after arrival at jobsite)

*Prevailing Wage (PW) California Labor Code §1720, et. Seq add $50/hr

TRAVEL

Personnel	Regular Hourly Rate
Subsistence (Per Diem)	$300/day
Vehicle Mileage	0.75/mile

EQUIPMENT, MATERIALS, & ANALYTICAL TESTS

Nuclear Density Gauge / Sand Cone Testing Equipment	$10/hr
Vehicle	10/hr
Special Inspection Equipment	5/hr
Asphalt Cold Patch/Concrete	30/bag
Double Ring Infiltrometer Equipment	200/day
GPS Unit	160/day
Pick-up Truck	150/day
Water Buffalo	75/day
Dynamic Cone Penetrometer	400/day
Hand-Auger	50/day
Distilled Water (5-gallon)	20/ea
Bailer (Reusable)	35/day
Bailer (Disposable)	15/ea
Stainless Sampling Pump	$150/day
Battery-Powered Pump	75/day
Water Level Indicator	40/day
Interface Probe	125/day
Photo-Ionization Meter	150/day
Combustible Gas Meter	150/day
pH/Conductivity/Temperature Meter	150/day
Turbidity Meter	80/day
Air Sampling Pump	80/day
Level D PPE/Decon Rinse Equipment	50/day
Concrete Coring Equipment	285/day
Generator or Air Compressor	150/day
55-Gallon Drum	120/ea
Visqeen (6 mil 20X100')	135/roll
Traffic Cones/Barricades	35/day
TPHg(EPA 8015B)	70/ea
TPHd/TPHmo	(EPA 8015M) 75/ea
TPH Carbon Chain Breakdown	(EPA 8015M) 110/ea
Methanol and/or Ethanol (EPA 8015M)	125/ea
Volatile Organic Compounds	(EPA 8260B) 125/ea
Semi-Volatile Organic Compounds	(EPA 8270) 225/ea
PAHs (EPA 8270SIM)	185/ea
CAM 17 Metals (EPA 6010B)	170/ea
Single Metal	(EPA 6010B) 30/ea
Hexavalent Chrome (EPA 7199)	75/ea
Organochlorine Pesticides (EPA 8081)	110/ea
Organophosphorus Pesticides (EPA 8141)	125/ea
Chlorinated Herbicides (EPA 8151)	125/ea
PCBs (EPA 8082)	95/ea
Soil pH (EPA 9045C)	20/ea
WET or TCLP Extraction	85/ea
EPA 5035 Sample Kits	40/ea
Asbestos (PLM)	25/ea
Asbestos (400-point count)	50/ea
Sample Compositing	20/composite
48-hour Turnaround Time	60% surcharge
72-hour Turnaround Time	40% surcharge

500 N Victory Boulevard ■ Burbank, CA 91502 ■ Telephone 818.841.8388 ■ Fax 818.841.1704

LABORATORY TESTS*

COMPACTION CURVES

(D698/D1557/T99/T108) 4-inch mold..... $300/ea
(D698/D1557/T99/T108) 6-inch mold..... 300/ea
(CT 216) California Impact 300/ea
Check Point..... 125/ea
(D1632/CT312) Soil Cement Cyl. Fabrication (Set of 3) ... 200/set
(D1632/CT312) Soil Cement Cyl. Fabrication (Addtl. Spec.) 75/ea
(D1633/CT312) Soil Cement Comp. Strength (Set of 3) 350/set
(D1633/CT312) Soil Cement Comp. Strength (Addtl. Spec.) 125/ea

SOIL AND AGGREGATE STABILITY

(D2844/CT301) Resistance Value $350/ea
(D2844/CT301) Resistance Value, Treated 350/ea
(D1883) California Bearing Ratio 600/ea
(C977) Stabilization Ability of Lime 185/ea
(D1883) Calif. Bearing Ratio (Army Corp of Engineers) 600/ea

CHEMICAL ANALYSIS

(G187/CT643/T288) pH and Resistivity..... $175/ea
(D4972/T289) pH Only 75/ea
(CT417) Sulfate Content..... 125/ea
(CT422) Chloride Content 125/ea
(D2974) Organic Content 100/ea

PERMEABILITY, CONSOLIDATION AND EXPANSION

(D5084) Permeability, Flexible Wall..... $270/ea
(D5856) Permeability, Rigid Wall 260/ea
(D2434) Permeability, Constant Head 280/ea
(D2434) Permeability, FHA Slab-on-Grade 110/ea
(D2434) Permeability, Hourly 55/ea
(D2435/T216) Consolidation (6 pts. w/ Unload) $400/ea
(D2435/T216) Consolidation Additional Point w/ Unload ... $90/ea
(D4546) Swell/Compression Testing & Density 125/ea
(D4546) Swell/Settlement Testing & Density (ea. addtl. pt.) 85/ea
(D4546) Swell/Settlement Testing & Density (County) 100/ea
(D4546) Swell/Settlement Testing & Density (FHA) 90/ea
(D4829) Expansion Index of Soils..... 250/ea

STEEL TESTING

Reinforcing Steel Tests:

(A370) Tensile Strength & Elongation
- #11 Bar & Smaller $100/ea
- #14 Bar $125/ea
- #18 Bar (Proof Test) $150/ea

(A370) Bend Test
- #11 Bar & Smaller $50/ea
- #14 & #18 Bar $75/ea

(A370) Tensile - Mechanically Spliced Bar
- #11 Bar & Smaller $175/ea
- #14 Bar & Larger..... $225/ea

(A370) Tensile – Electric Resist. Butt Splice w/ Control 175/ea
(A370) Straightening of bar (if required)..... 50/ea

Structural Steel Tests:

(A370) Machining & Prep of Test Specimen ..... Cost + 20%
(A370) Tensile Strength & Elongation
- Up to 200,000 lbs..... $125/ea
- 200,000 – 300,000 lbs..... 150/ea

300,000 – 400,000 lbs..... 175/ea

Pre-stressing Wire & Tendon Tests:

(A421) Tensile Strength, Single Wire..... $175/ea
(A416) Tensile Strength, 7-Wire Strand $200/ea

SOIL AND AGGREGATE PROPERTIES

(D422/T88) Particle Size, Hydrometer w/out Sieve..... $250/ea
(C136/D6913/T27) Sieve, Coarse to Fine w/ #200 Wash 175/ea
(C136/D6913/T27) Sieve, Coarse or Fine w/ #200 Wash 150/ea
(C136/D6913/T27) Sieve, Coarse or Fine No #200 Wash 125/ea
(C117/D1140/T11) Materials Finer than #200..... 115/ea
(D2216/T265/CT226) Moisture Content.....40/ea
(D2487/D2488) Visual Soil Classification.....40/ea
(D2937) Density of In-Place Soil, Drive-Cyl. Method 50/ea
(D4943) Shrinkage Factors of Soils, Wax Method 75/ea
(C131/C535/CT211) L.A. Abrasion Resistance..... $250/ea
(C142/T112) Clay Lumps and Friable Particles..... 155/ea

SOIL AND AGGREGATE PROPERTIES (CONTD.)

(C123/T113) Light Weight Particles 250/ea
(D3744/CT229/T210) Durability Index Fine 200/ea
(D3744/CT229/T210) Durability Index Coarse 200/ea
(CT227) Cleanness Value 200/ea
(D4791) Flat & Elongated Particles 175/ea
(D693/CT205) Percent Crushed Particles 200/ea
(D5821) Percent. of Fractured Particles, Coarse Aggregate.. 200/ea
(C40/CT213/T21) Organic Impurities..... 100/ea
(C235) Soft Hardness (Scratch Hardness) 125/ea
(C88/CT214/T104) Sulfate Soundness 500/ea
(C1252/T304) Uncompact. Void Content, Fine Aggregate... 175/ea
(C127/CT206/T85) Coarse Specific Gravity..... 150/ea
(C128/CT207/T84) Fine Specific Gravity..... 175/ea
(D854/CT209/T100) Specific Gravity of Soil..... 200/ea
(C29/CT212/T19) Unit Weight & Percent Voids 125/ea
(D2419/CT217/T176) Sand Equivalent 150/ea
(D4318/CT204/T89/T90) Plastic Index (Plastic/Liq. Limit) 250/ea
(D4318/CT204/T89) Liquid Limit 125/ea
(D4318/CT204/T90) Plastic Limit 125/ea
(C330) Spec. for Lightweight Aggregates, Struc. Concrete ... Quote

SHEAR STRENGTH

(D2166) Unconfined Compression $100/ea
(D3080/T236) Direct Shear (3 points) 350/set
(D3080/T236) Direct Shear Addtl. Points/ea. residual pass $125/ea
(D2850) Unconsolidated-Undrained Triaxial Shear..... 115/ea
(D2850) Unconsolidated-Undrained Triaxial Staged..... 160/ea
(D4767) Consolidated-Undrained Triaxial Shear..... 265/ea
(D4767) Consolidated-Undrained Triaxial Staged..... 340/ea
(EM1110) Consolidated-Drained Triaxial Shear 375/ea
(EM1110) Consolidated-Drained Triaxial Staged..... 480/ea

MASONRY**

Concrete Block Test (Sets of 3 Required):

(C140) Unit Weight Moisture Content & Absorption..... $350/ea
(C140) Moisture Content/Absorption (ea. addtl. specimen) 125/ea
(C140) Compression Test 300/ea
(C140) Compression Test (ea. addtl. specimen) 125/ea
(C426) Linear Drying Shrinkage..... 350/ea
(C109/UBC 21-16) Mortar Cylinder (2"x4") 30/ea
(C942) Grout Prism (3"x3"x6"), trimming included..... 35/ea

Masonry Prism (Assemblage):

(C1314) 8"x8"x16" – 8"x12"x16" $200/ea
(C1314) 8"x16"x16" – 10"x12"x16" 225/ea
(C1314) 12"x12"x16" – 12"x16"x16" 250/ea
(C1314) Larger than 12"x16"x16" ..... Quote

LABORATORY TESTS* (CONTINUED)

High Strength Bolt, Nut, & Washer Tests:

(A325/A490) Tensile Test on Bolts $100/ea
(A563) Proof Load Test on Nuts $100/ea
(A325/A490) Hardness Test on Bolts $50/ea
(A536) Hardness Test on Nuts $50/ea
(F436) Hardness Test on Washers $50/ea

Weld Specimen Tests:

(E164) Ultrasonic Examination ..... Quote
Machining & Prep of Test Specimen ..... Cost + 20%
(E381) Macrotech Test (3 Faces) $355

ASPHALT TESTING

Asphalt Properties:

(D2726/CT308/T166) Bulk Spec. Grav. Compacted HMA $100/ea
(D1560/CT366) Stabilometer Value (HVEEM) $225/ea
(D2041) Theoretical Max Specific Gravity $200/ea
(D5444) Sieve Analysis of Extracted Asphalt $250/ea
(D6307/CT382) Percent Asphalt, Ignition Method $175/ea
(D1188) Unit Weight of Asphalt Core $95/ea

MISCELLANEOUS TESTING SERVICES

Calibration of Hydraulic Ram:

100 Ton & Under $250/ea
101 Tons – 200 Tons 350/ea

Use of Universal Testing Machine:

UTM with One Operator $400/ea
Additional Technician ..... Regular Tech Rate

Spray Applied Fireproofing:

(E605/E736) Fireproofing Oven Dry Density/Thickness ... $125/ea

Brick Test (Set of 5 Specimens):

(C67) 24-Hour Absorption, Cold Water $250/set
(C67) 5-Hour Absorption, Boiling Water $250/set
(C67) Compression Test or Modulus of Rupture $300/set
(C67) Each Additional Specimen $100/ea

CONCRETE**

Mix Designs:

(ACI211/ACI214) Concrete Mix Design $450/ea
(ACI211/ACI214) Review of Concrete Mix Design $450/ea
(C192) Concrete Trial Mix (includes equipment & labor) .. $650/ea

Concrete Properties:

(C39/CT521/T22) Comp. Strength, Concrete Cyl $30/ea
(C42/CT521/T22) Comp. Strength, Concrete/Gunite Core ... $60/ea
(C78/CT523) Flex. Strength of 6"x6"x21" Concrete Beam .. 125/ea
(C174) Length Measuring of Drilled Cores $100/ea
(C1140) Shotcrete Panel-Coring & Testing (Set of 3) $350/set
(C1140) Shotcrete Panel (each addtl. specimen) $125/ea
(C496) Static Modulus of Elasticity $250/ea
(C496) Drying Shrinkage (Set of 3, up to 28 days) $650/set
(C642) Spec. Gravity, Absorp., Voids in Hardened Concrete. 95/ea

(F1869) Vapor Emission Rate, Concrete Subfloor 50/ea

***2X Surcharge on rush turn-around for laboratory testing.**
****Fee applies for sample storage, testing, or disposal.**

1. Listed are typical charges for the services most frequently performed by Geocon. Prices for unlisted services as well as special quotations for programs involving volume work will be provided upon request. Laboratory test prices shown are for laboratory work only, and include reporting of routine results not calling for comments, recommendations or conclusions.

2. Sampling and testing is conducted in substantial conformance with the latest applicable or designated specifications of the American Society for Testing and Materials, Caltrans, American Association of State Highway and Transportation Officials, or other pertinent agencies.

3. Saturday, night work, and overtime hours are charged at time and one-half; Sundays and holidays at double time. Per diem is $155.00 per day when location of work dictates.

4. Equipment and materials will be billed at cost plus 15%. Outside services including subcontractors and rental of special equipment are billed at cost plus 15%. Hourly services are billed portal to portal from closest office in accordance with the stated hourly rates herein, with a minimum two-hour charge

5. Invoices will be submitted at four-week intervals. Terms of payment are met upon presentation of invoice. Invoices become delinquent thirty (30) days from invoice date and subject to one and one-half percent (1-1/2%) service charge per month, or the maximum rate allowed by law, whichever is lower. If Client objects to all or any portion of any invoice, Client will so notify Geocon in writing within fourteen (14) calendar days of the invoice date, identify the cause of disagreement, and pay that portion of the invoice not in dispute. The parties will immediately make every effort to settle the disputed portion of the invoice. Payment on delinquent invoices will first be applied to accrued interest and then to the principal amount. All time spent and expenses incurred (including any attorney's fees and costs) in connection with collection of any delinquent amount will be paid by Client to Geocon per Geocon's current fee schedule.

6. Client and Geocon shall allocate certain of the risks so that, to the fullest extent permitted by law, Geocon's (the term "Geocon" includes Geocon's partners, officers, directors, employees, agents, affiliates, subcontractors and subconsultants) total aggregate liability to Client *is limited to the greater of $5,000 or the total compensation received from Client by Geocon for services rendered on this project, for any and all of Client's injuries, damages, claims, losses, expenses, or claim expenses arising out of this Agreement from any cause or causes, including attorneys' fees and costs which may be awarded to the prevailing party, and Client agrees to indemnify and hold harmless Geocon from and against all liabilities in excess of the monetary limit established above.*

7. Client and Geocon shall allocate certain of the other risks so that, to the fullest extent permitted by law, Client shall limit Geocon's total aggregate liability to all third parties, including contractors, subcontractors of all tiers, materialmen, and others involved in Client's project, as well as persons and other entities not involved in the project, to *the greater of $10,000 or the total compensation received from Client by Geocon for services rendered on this project, for any and all injuries, damages, cause or causes, including attorneys' fees and costs which may be awarded to the prevailing party, and Client agrees to indemnify and hold harmless Geocon from and against all liabilities in excess of the monetary limit established above, including all liability incurred by Geocon for acts, errors, or omissions, pursuant to entering into agreements with third parties on behalf of Client in order to obtain access or entry onto property not owned by Client. Client agrees to notify all contractors and subcontractors of any limitation of Geocon's liability to them, and require them to abide by such limitation for damages suffered by any contractor or subcontractor arising from Geocon's actions or inactions. Neither the contractor nor any subcontractor assumes any liability for damages to others which may arise on account of Geocon's actions or inactions.*

HRGreen®

PACIFIC

February 21, 2024

Mr. Scott Matas
District Manager
Fire Access Maintenance District #1 (FAMD #1)
42-635 Melanie Place, Suite 103
Palm Desert, CA 92211

GMU P-24015

Subject: Proposal to Provide Pavement Management Plan Services for Fire Access Maintenance District #1 (FAMD #1), City of Indian Wells, California

Reference: "Request for Proposals (RFP) for Pavement Management Plan 2026-2031" Prepared by FAMD#1, Indian Wells Community Club, Issued January 18, 2024

Dear Mr. Matas,

GMU is pleased to submit this proposal to the Fire Access Maintenance District #1 (FAMD #1) - Indian Wells Community Club to update the community's Pavement Management Plan (PMP) for 2026 – 2031 in response to the reference Request for Proposal (RFP).

Our understanding of this project is based on our email with you, and reference. We understand that FAMD #1 is interested in obtaining a Pavement Management Plan to objectively rate the existing condition of the pavements maintained by FAMD #1. The community is also interested in obtaining recommendations to optimize the roadway network condition, as well as recommendations for replacing curbs and gutters for the next 5-year period, beginning on July 1, 2026.

In addition to offering the requested scope of work, GMU provides full-circle pavement engineering services, including "project-level" pavement engineering (coring, laboratory testing, and development of street-specific recommendations) and construction management, inspection, and testing services during construction. **In 2017, GMU performed forensic engineering for your community, evaluating pavements that were received new slurry sealed at that time.** Our experience and background knowledge allows GMU to add value to the FAMD#1's pavement management plan by offering practical, cost-effective, and implementable pavement maintenance and rehabilitation solutions.

GMU is confident that the deliverables prepared for this proposed project will provide valuable information that will comply with FAMD's requirements, and greatly assist the FAMD in prioritizing pavement repairs, budgets, and schedules. We appreciate the opportunity to provide this proposal for the pavement management plan project. Should you have any questions or comments, please feel free to call the undersigned (949.888.6513).

Respectfully Submitted,
GMU

Roger W. Schlierkamp, M.Sc., P.E.
Principal, Director of Pavement Engineering

Amina Mannan, Ph.D., P.E.
Senior Engineer

CONSULTING FIRM INFORMATION

GMU's single office and Caltrans-certified pavement/soils materials laboratory is located in Rancho Santa Margarita, California. GMU is the primary consultant for this project and will provide the requested scope of services in-house.

GMU was formed in 1967 and has established a reputation for reliability, innovation, accuracy, efficiency, and excellent service and has provided pavement, geotechnical, testing, and inspection services for over 57 years. This is exemplified by the wide variety of projects that we have successfully worked on, the long-term relationships that we have developed with our diverse group of clients, and the number of project achievement awards that GMU has been awarded. GMU is able to offer an unparalleled level of service because of its active principal involvement in each project and a professional staff of individuals that are leaders and experts in their respective fields.

GMU is a small Business Enterprise – California ID No: 59914.

GMU Established
1967

Professional Staff
Eleven Professional and Geotechnical Engineers

Pavement / Materials Laboratory
Caltrans Certified

Federal Employer Identification No.:
330359134

Small Business Enterprise (SBE) No.:
59914

Type of Entity
Privately Held S-Corporation

Owners
Greg Silver, Principal, President and CEO, M.Sc., PE, GE
Mike Moscrop, Principal and Vice President, M.Sc., PE, GE
Aron Taylor, Principal and Vice President, M.Sc., PE, CEG

GMU's office houses a 45-person team of highly qualified professional engineers, geologists, and engineering technicians with specialized experience in pavement engineering, geotechnical engineering, engineering geology, and materials testing. GMU's staff includes:

- Three (3) pavement distress inspectors, qualified to perform pavement condition index (PCI) surveys according to ASTM**;**
- Eleven (11) professional, pavement, and geotechnical engineers licensed in California;
- Five Pavement Engineers including **four (4) Masters degrees in pavement engineering**;
- Four (4) certified engineering geologists licensed in California; and
- Engineering technicians and registered special inspectors with an average of 15 to 25+ years of experience.

The GMU Pavement Engineering Difference

GMU has provided pavement engineering services since being established in 1967. Starting in 2005, GMU has employed dedicated pavement engineers to perform advanced pavement engineering. Today, GMU has the largest team of pavement engineers under one roof in the Southern California region. Our in-house pavement engineering service line offers:

- Performing non-destructive pavement evaluation testing, including in-house Falling Weight Deflectometer testing (FWD testing or "deflection" testing) and Ground-Penetrating Radar (GPR) testing for pavement evaluation projects.
- Preparing Pavement Management Plans (PMP) for cities and private community roadway networks, including pavement condition index (PCI) surveys.
- Pavement-materials laboratory testing in our in-house Caltrans-certified pavement and soils laboratory. Pavement laboratory tests performed by GMU include asphalt concrete mix designs for asphalt producers and quality control/quality assurance testing during construction.
- Preparation of pavement design and rehabilitation plans and specifications.
- Pavement bid solicitation and construction management advisory services.

Select Client List

GMU currently provides pavement engineering services for numerous communities, including:

- Canyon Lake Property Owners Association, Canyon Lake
- The Oasis Community Association, Menifee
- Emerald Bay, Laguna Beach
- Ladera Ranch and Covenant Hills HOA, Orange County
- San Joaquin Hills HOA, Laguna Niguel
- Ocean Heights, Newport Coast
- Newport Coast Master Association, Newport Coast
- Orchard Hills, Irvine
- Marquesa, Monarch Beach
- Dove Canyon, Rancho Santa Margarita
- Sea View, Newport Beach
- Tree Haven, Tustin
- Cielo HOA
- Casta Del Sol, Mission Viejo
- Threewoods HOA, Fullerton
- Lake Forest II Master HOA, Lake Forest
- And more…

GMU also provides pavement engineering services for cities and agencies, including:

- Aliso Viejo
- Laguna Niguel
- San Clemente
- Dana Point
- Rancho Santa Margarita
- Irvine
- Newport Beach
- Mission Viejo
- Garden Grove
- Fountain Valley
- Seal Beach
- San Juan Capistrano
- Huntington Beach
- Anaheim
- Chino Hills
- Corona
- San Fernando
- Carson
- South Gate
- Torrance
- County of Orange
- And more…

Key Staff – Pavement Engineering

Roger Schlierkamp, M.Sc., P.E., Project Manager for this on-call contract, is GMU's Principal/ Director of Pavement Engineering and has over 14 years of diversified pavement engineering experience. Mr. Schlierkamp holds a Master's Degree in Pavement/Materials Engineering from the University of Nevada, Reno. For this contract, Mr. Schlierkamp will be the primary point of contact for pavement engineering services, including pavement evaluations, design, observation, testing, inspection, and mix design development. Mr. Schlierkamp has provided pavement engineering services for Caltrans, Orange County, Los Angeles County, numerous local municipalities, and more.

Amina Mannan, Ph.D., P.E., brings 13 years of expertise in pavement engineering and 5 years in geotechnical engineering. She holds a Ph.D. and a Master's Degrees in Pavement and Materials Engineering, earned from the University of New Mexico, Albuquerque, and the University of Akron, Ohio, respectively. Amina boasts a robust academic background and has contributed significantly to her field with over 40 publications in journals and conferences. Her professional services span a wide range of projects, offering specialized expertise in pavement and geotechnical engineering. In pavement engineering, Amina excels in pavement condition assessment, material testing, pavement evaluation/design, pavement condition index, specification development, and mix design projects. Furthermore, her geotechnical engineering experience encompasses site investigation, geotechnical analysis and design, foundation design, slope stability analysis, construction monitoring, and risk assessment. Amina is a licensed civil engineer in the state of Texas.

PROPOSED SCOPE OF WORK

PHASE 1 – PAVEMENT MANAGEMENT PLAN

1.1 Street Inventory

To efficiently and effectively process and analyze the vast volume of pavement distress information, PAVER V7 software will be utilized. An inventory of all streets managed by the FAMD will be established in PAVER, including street name, start/stop limits, area, and available work history information.

PAVER was originally developed in the 1970's by the Department of Defense to manage their significant inventory of pavements. PAVER is a pavement management program used throughout the world by various agencies, including Cities, HOAs, Counties, States, and Federal agencies, to monitor pavement condition, calculate pavement condition index, predict future pavement condition, strategize/schedule future pavement work, and perform pavement cost analysis.

Future pavement management plan updates will be able continue using the same database file.

1.2 Pavement Surface Condition Assessment

In order to objectively identify the current condition of the roadway network, visual pavement surface condition assessments will be performed in general accordance with the American Society of Testing and Materials (ASTM) standard practice for assessing the pavement condition of roads and parking lots, specifically ASTM D6433. To summarize ASTM D6433, this standard test method defines the different pavement distress types, how to rate them, and how to calculate the Pavement Condition Index (PCI). This standard test method defines 20 distress types for asphalt concrete pavements, as follows:

Asphalt Concrete Pavement Distress Types per ASTM D6433

1. Alligator or Fatigue Cracking
2. Bleeding
3. Block Cracking
4. Bumps and Sags
5. Corrugation
6. Depression
7. Edge Cracking
8. Joint Reflection Cracking
9. Lane/Shoulder Drop-Off
10. Longitudinal / Transverse Cracking
11. Patching / Utility Cut Patches
12. Polished Aggregates
13. Potholes
14. Railroad Crossing
15. Rutting
16. Shoving
17. Slippage Cracking
18. Swell
19. Raveling
20. Weathering

The severity level of each distress type is also considered (i.e., low, medium, or high), as well as the quantity of each distress type (i.e., square foot or linear foot typically) in order to determine the sample unit's overall condition. The type, extent, and severity level of the distresses identified and

measured is used to calculate the Pavement Condition Index (PCI). **New and properly constructed pavements have a PCI of 100 or close to 100 whereas old and deteriorated pavements have a PCI around 0 to 40.**

The pavement surface condition survey will be performed by a walking survey. We estimate this will take approximately 3 days of field data collection to complete and this data will represent the community's current PCI (i.e., "2025 PCI's).

1.3 Pavement Condition Index (PCI) Analysis

Using PAVER software, the pavement condition index (PCI) of each of the subject streets will be calculated. As summarized in Task 1.2, the distress types, extent, and severities observed during the pavement surface condition assessments will be inputted into PAVER. The figure below provides an example of this type of pavement condition map that may be produced to illustrate the pavement condition throughout the community.

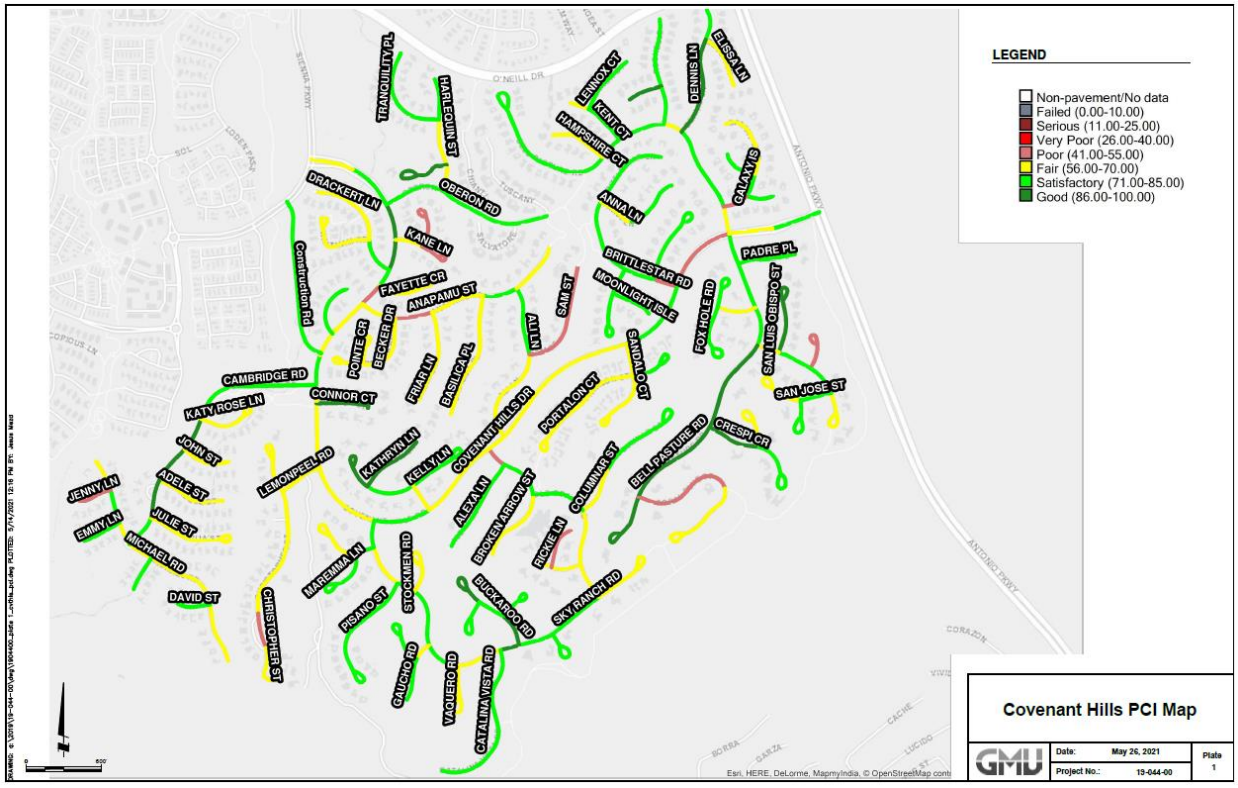


Figure 1: Example of Pavement Condition Index Map, Covenant Hills, 2021

1.4 Maintenance & Rehabilitation (M&R) Plan and Budgetary Analysis

The information gathered from Tasks 1.1 through 1.3 will be used to prioritize streets for maintenance and/or rehabilitation. Factors such funding, strategy selection, unit costs, and pavement

condition all affect how the streets are prioritized and what repair should be implemented in order to achieve the desired budget or PCI goal.

The most economical strategy for enhancing or preserving the condition of a pavement network has been to prioritize the maintenance of well-maintained roads rather than letting them deteriorate and then undergoing reconstruction later on. Roads kept in good condition offer an extended service life at a reduced overall life-cycle cost compared to those allowed to degrade significantly, necessitating more costly repairs such as full replacement. The following graph illustrates this concept:

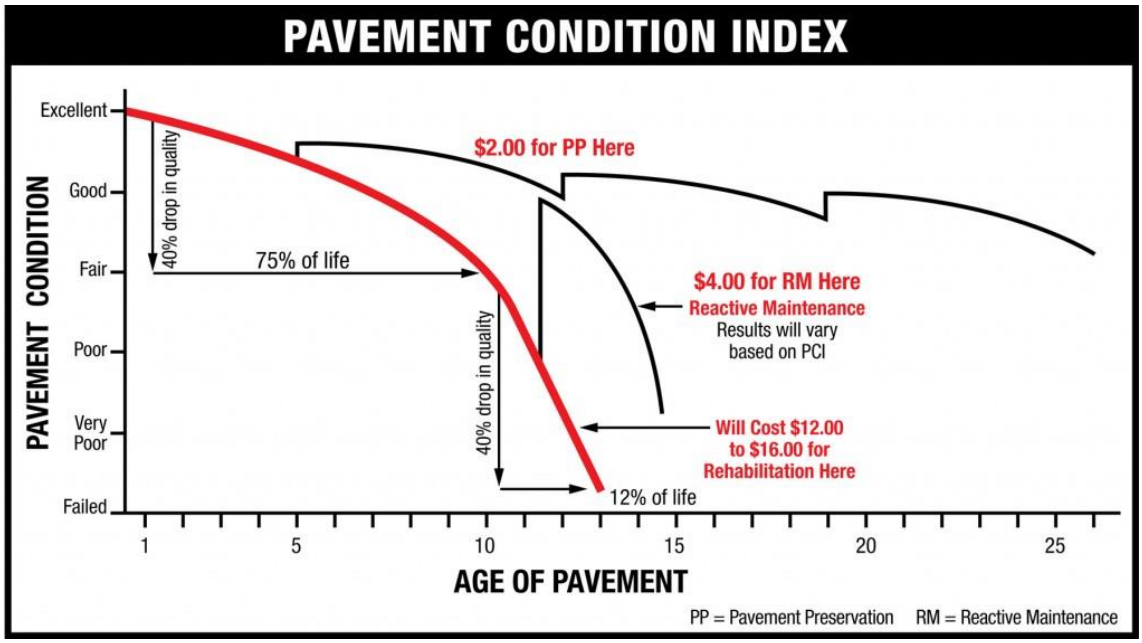


Figure 2: Effect of proactive vs reactive treatments on pavement performance.

Examples of various types of pavement maintenance & rehabilitation (M&R) strategies that can be explored and potentially incorporated into the HOA's PMP decision tree include:

Good to Satisfactory Condition (for example PCI > 85):

Possible Maintenance / Preservation Treatments

- Crack repairs
- Seal coating
- Slurry Seal, conventional and latex modified
- Micro-surfacing
- Chip Seals
- Cape Seals
- Crack Repair
- Reclaimed Asphalt Pavement Chip Seals
- Rubberized slurry seals

Fair Condition (for example 85 > PCI > 60):

Possible Rehabilitation Repair Types

- Mill and Fill or Mill and Overlay
- Pavement Interlayer Systems
- Rubberized overlays
- Cold In-Place Recycling
- Cold Central-Plant Recycling
- Isolated Repair

Poor Condition (for example PCI < 60):

Possible Reconstruction Repair Types

- Full-Depth Reclamation
- Soil-Stabilization
- Conventional Remove-and-Replace
- Geogrid Stabilization
- Cement, Lime, or Emulsion Treatment for Soil Stabilization.

Please note the M&R decision tree is not intended to substitute project-level pavement evaluations and analyses. Additional information, such as subsurface conditions, subgrade soil type, traffic conditions, and more, may be necessary to develop project-level recommendations (separate phase of work that is conducted beyond network level analysis).

1.5 Pavement Management Plan (PMP) Report

A pavement management plan (PMP) report will be prepared to summarize our work, findings, and recommendation, including:

- Pavement section inventory and pavement condition index (PCI) of each street section;
- Overall PCI for the pavement network;
- Conceptual pavement improvement recommendations and corresponding estimated cost for the next 5 years (tables showing street name and conceptual treatment recommendation for the next 5 years).

This information will help the FAMD objectively prioritize, schedule, budget, and cost-effectively optimize the roadway network condition.

Please note, our approach described above involves setting up an inventory in industry-standard pavement management planning software (Paver), which offers significant advantages over the subjective method previously performed as part of the community's 2021 Pavement Management Plan prepared by others. Our approach not only allows the community's current pavement network condition to be objectively rated following a standardized method (ASTM D 6433), it will also allow the long-term performance of the roadway network condition to be incorporated into the database over time and monitored. PCI surveys conducted in future PMP studies can be compared with

previous PCI surveys to consider if the rate of pavement deterioration is occurring within an expected range. Adjusting funding needed becomes significantly more defendable when it is supported by an objective and methodical approach, as outlined in this proposal.

PROPOSED SCHEDULE

The above summarized scope of work is estimated to be completed within **3 months** from notice to proceed.

OPTIONAL SERVICES (FUTURE PHASES)

- Phase 2: Pavement evaluation (project-level services), including:
  - Falling weight deflectometer testing
  - Ground penetrating radar testing
  - Pavement coring
  - Lab testing,
  - Development of street-specific and cost-effective pavement improvement recommendations
- Phase 3: Plans, specifications, and bidding services
- Phase 4: Construction management advisory and materials observation-and-testing services

ESTIMATED FEE

We will provide the proposed Phase 1.1 through 1.5 services for a lump sum fee of **$24,900**. Our 2024 Schedule of Charges is attached for reference.

**Our budget for Optional Phases 2 through 4 services are dependent on the type & extent of repair to be implemented, the contractor's construction schedule, and other information to be determined.*

REFERENCES

Canyon Lake Property Owners Association:
Mr. Eric Kazakoff
General Manager
951-244-6841 x 210
ekazakoff@canyonlakepoa.com

City of Aliso Viejo: Mr. Shaun Pelletier
City Engineer, Aliso Viejo
949-425-2533 o
spelletier@cityofalisoviejo.com

City of Mission Viejo: Mr. Rich Schlesinger (PM for most residential paving projects)

City Engineer, Mission Viejo
949-470-3079 o
RSchlesinger@cityofmissionviejo.org

Newport Beach: Mr. Andy Tran
Senior Civil Engineer, Newport Beach
949-644-3315
Atran@newportbeachca.gov

Additional references available upon request…

Attachments:
GMU 2024 Schedule of Charges
GMU General Conditions for Geotechnical Engineering Services

I accept the scope and budget estimate set forth in this proposal, and the conditions set forth in the attached Agreement:

(Please sign below and initial each page of the General Conditions on bottom right)

Signature of Client or Authorized Agent:

_____ Date: _____ / _____ / _____

ENGINEERS & GEOLOGISTS

2024 SCHEDULE OF CHARGES

PROFESSIONAL SERVICES

Document Preparation and Project Services	$ 110.00/hour
CAD/GIS Design Engineer	$ 128.00/hour
Staff Engineer or Geologist	$ 170.00/hour
Senior Staff Engineer or Geologist	$ 188.00/hour
Project Engineer or Geologist	$ 212.00/hour
Senior Engineer or Geologist	$ 248.00/hour
Associate Engineer or Geologist	$ 267.00/hour
Principal/Director	$ 290.00/hour

FIELD INSPECTION & TESTING SERVICES

Staff Engineering Technician — $ 110.00/hour*

- Services provided under direct supervision of a Senior Engineering Technician

Senior Engineering Technician — $ 128.00/hour*

- Inspections for soils/grading, asphalt, concrete, batch plants, piles/caissons, etc.
- Certifications by ACI, ICC, Caltrans, local jurisdictions, etc.

Registered Special Inspector (*No 4-hour minimum*) — $ 128.00/hour*

- Certifications by ACI, ICC, Caltrans, local jurisdictions, etc.
- Reinforced concrete, Post-Tension, Masonry, Welding, Bolting, Fireproofing

Instrumentation Engineer — $ 170.00/hour

- Slope inclinometer and Piezometer monitoring
- Manometer for floor-level surveys
- Stormwater turbidity & pH meter
- Groundwater monitoring - pressure transducer, datalogger, water chemistry meter, etc.
- Pipeline video camera for drains, wells, etc.

Engineering Seismological Technician (includes 3-channel seismograph) — $ 170.00/hour

- Blast vibration monitoring
- Construction vibration & noise monitoring (pile driving, drilling, demolition, etc.)

***Notes:**

(1) Rates include vehicle, nuclear density gauge, and equipment for testing, inspection, and sampling.
(2) No 4-hour minimum charges apply, except for night work.
(3) Overtime is charged at 1.5 times the base rate. Overtime is defined as time worked on the project in excess of 8 hours per day and all time on Saturdays, Sundays, and holidays.
(4) Prevailing Wage projects, additional hourly surcharge for Field Personnel per CA Labor Code §1720, et seq. — Add $ 36.00/hour

LABORATORY TESTING SERVICES

Laboratory Testing — $ 138.00/hour

(For special materials testing and laboratory costs on a per-test basis, see GMU's Laboratory Fee Schedule)

OTHER CHARGES

Outside Services	Cost + 15%
Reimbursables & Reprographics	Cost

GENERAL CONDITIONS FOR ENGINEERING AND GEOLOGICAL SERVICES

1. **Scope of Work**
   Engineer ("GMU Geotechnical, Inc.") shall perform the services outlined in the attached Scope of Work, which may only be amended by Client and Engineer in writing. If Engineer provides Client with a writing confirming the change in scope, it shall become an amendment to this Agreement unless Client objects in writing within five (5) working days after receipt. All work performed by Engineer at the Project is subject to the terms and limitations of this Agreement.

2. **Payments to Engineer**
   2.1 *Lump Sum*
   Portions of the proposal may be on a lump sum basis. All lump sum costs are due in full prior to the initiation of work.
   2.2 *Time and Materials*
   All out-of-scope work performed under this Agreement shall be on a time and materials basis unless otherwise specifically agreed to in writing by both parties.
   2.3 *Late Payment Charge*
   All invoices are due upon receipt. If Client fails to make any payment due to Engineer for services and expenses within thirty (30) days after receipt of Engineer's invoices, the amounts due Engineer shall, thereafter, include a late payment charge at the rate of 1½% per month, or the highest rate permitted by law, from the thirtieth day.

3. **Standard of Performance; Disclaimer of Warranties**
   Engineer shall perform its Services consistent with that level of care and skill ordinarily exercised by other professional engineers under similar circumstances at the time the Services are performed. No warranty, express or implied, is included or intended by this Agreement. Client recognizes that neither Engineer nor any of Engineer's subconsultants owe any fiduciary responsibility to Client.

4. **Engineer's Estimate of Construction Costs**
   Client acknowledges that construction and development are subject to many influences that are not subject to precise forecasting and are outside of Engineer's control. Client further acknowledges that actual costs incurred may vary substantially from the estimates prepared by Engineer and that Engineer does not warrant or guarantee the accuracy of construction or development cost estimates.

5. **Construction Phase Services**
   If the scope of Engineer's work includes observation and testing during the course of construction, Engineer shall:

   5.1 Make visits to the site at intervals appropriate to the various stages of construction as Client may request, in order to observe the geotechnical conditions encountered by Contractor(s) and the progress and quality of the geotechnical aspects of Contractor(s)' work. Based on information obtained during such visits and on such observations, Engineer shall inform Client of the progress of the geotechnical aspects of the work. Client understands that Engineer may not be on site continuously nor shall Engineer observe all of Contractor's work.
   5.2 Engineer shall perform such services as are stated in the Scope of Work. Such services shall be performed in accordance with current engineering standards. Client understands that services performed by Engineer on finished work, or work in progress, are taken intermittently and indicate,

on a statistical basis, the general acceptability of the work. Testing or observation by Engineer of portions of the work of other parties on a project are not a guarantee of the quality of Contractor's work and shall not relieve such other parties from their responsibility for performing their work in accordance with applicable plans, specifications, and safety requirements.

5.3 Engineer shall not supervise, direct, or have control over Contractor(s)' work nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected by Contractor(s) for the Project, for safety precautions and programs incident to Contractor(s)' work or for any failure of Contractor(s) to comply with Laws and Regulations applicable to Contractor(s) furnishing and performing its work.

6. Construction Management Advisor Services

If the scope of Engineer's work includes construction management advisor services during the course of construction, Engineer shall:

6.1 Not have the authority to direct, reject, nor stop the Contractor's work as it is underway or at the time of material delivery. Acceptance by the Engineer requires sampling and testing, or in some cases further evaluation, which takes time; therefore, acceptance cannot be determined immediately by the Engineer. The Contractor is responsible for actively performing quality control during construction to monitor its methods and materials, and make adjustments at their own direction, in order to achieve their contractual obligations with the Client in meeting the project requirements.

6.2 Only utilize project specification requirements to determine acceptance of the Contractor's work, and shall not determine acceptance based on how the Contractor or the Client considers the workmanship to be acceptable.

6.3 Not have any responsibility to review or enforce the contract between the Client and the Contractor, nor have a fiduciary duty to either Contractor or Client.

7. **Client's Responsibilities**

In addition to payment for the Services performed under this Agreement, Client agrees to:

7.1 Assist and cooperate with Engineer in any manner necessary and within its ability to facilitate Engineer's performance under this Agreement.

7.2 Designate a representative who will have authority to receive all notices and information pertaining to this Agreement and who will enunciate Client's policies and decisions and assist as necessary in matters pertaining to the Project and this Agreement. Client's representative will be subject to change by written notice.

7.3 Provide access to and/or obtain permission for Engineer to enter upon all property, whether or not owned by Client, as required to perform and complete the Services. Client recognizes that the use of investigative equipment and practice may unavoidably alter conditions or affect the environment at the existing Project Site(s). Engineer will operate with reasonable care to minimize damage to the Project Site(s). The cost of repairing such damage will be borne by Client, and is not included in the Fee unless otherwise stated.

7.4 Correctly designate on plans to be furnished to Engineer, the location of all subsurface structures, such as pipes, tanks, cables, and utilities within the property lines of the Project Site(s), and shall be responsible for any damage inadvertently caused by Engineer to any such structure or utility not so designated. Client warrants the accuracy of any information supplied by it to Engineer, and acknowledges that Engineer is entitled to rely upon such information without verifying its accuracy.

7.5 Supply to Engineer all information and documents in its possession or knowledge which are relevant to the Services herein described. Prior to the commencement of any Services in connection with a specific property, Client shall notify Engineer of any known potential or possible health or safety

hazards existing on or near the Project Site, with particular reference to hazardous materials or conditions.

8. **Changed Conditions**
If, during the course of performance of this Agreement, conditions or circumstances are discovered which were not contemplated by Engineer at the commencement of this Agreement, Engineer shall notify client in writing of the newly discovered conditions or circumstances, and Client and Engineer shall renegotiate, in good faith, the terms and conditions of this Agreement. If amended terms and conditions cannot be agreed upon within thirty (30) days after notice, Engineer may terminate this agreement and be compensated as set forth in Section 17, "Termination".

9. **Hazardous Materials**
Client understands that Engineer's services under this Agreement are limited to engineering and/or geological services and that Engineer shall have no responsibility to locate, identify, evaluate, treat, or otherwise consider or deal with hazardous materials. Client shall be solely responsible for notifying all appropriate federal, state, municipal, or other governmental agencies, including the potentially affected public, of the existence of any hazardous materials located on or in the project site, or located during the performance of this Agreement. The existence or discovery of hazardous materials shall constitute a Changed Condition under this Agreement.

10. **Certifications**
Engineer shall not be required to execute any certification with regard to work performed, tested, or observed under this Agreement unless: 1) Engineer believes that sufficient work has been performed by Engineer to provide a sufficient basis to issue the certification, 2) Engineer believes that the work performed, tested, or observed meets the criteria of the certification, and 3) the exact form of such certification has been approved by Engineer, in writing, prior to execution of this Agreement. Any certification by Engineer is limited to an expression of professional opinion based upon the service performed by Engineer, and does not constitute a warranty or guarantee, either expressed or implied.

11. **Allocation of Risk**
11.1 Limitation of Liability
THE TOTAL CUMULATIVE LIABILITY OF ENGINEER, ITS SHAREHOLDERS, DIRECTORS, OFFICERS, EMPLOYEES, AND AGENTS (COLLECTIVELY "ENGINEER" OR "ENGINEER ENTITIES"), TO CLIENT ARISING FROM SERVICES PERFORMED OR TO BE PERFORMED BY ENGINEER FOR THIS PROJECT WHETHER IN CONTRACT, INDEMNITY, CONTRIBUTION, TORT, OR OTHERWISE, AND INCLUDING ATTORNEY'S FEES DUE UNDER THIS AGREEMENT, SHALL NOT EXCEED 100% OF GROSS COMPENSATION RECEIVED BY ENGINEER UNDER THIS AGREEMENT AND PROVIDED, HOWEVER, THAT SUCH LIABILITY SHALL BE FURTHER LIMITED IN THE FOLLOWING RESPECTS:

ENGINEER ENTITIES SHALL NOT BE LIABLE TO CLIENT FOR ANY LOSSES, DAMAGES, OR CLAIMS ARISING FROM DAMAGE TO SUBTERRANEAN STRUCTURES OR UTILITIES WHICH ARE NOT CORRECTLY SHOWN ON PLANS FURNISHED BY CLIENT TO ENGINEER DURING THE PERFORMANCE OF AUTHORIZED SERVICES OR WHICH ARE NOT CALLED TO ENGINEER'S ATTENTION BY CLIENT.

11.2 Indemnification
11.2.1 Hazardous Materials
Client agrees to indemnify and hold harmless the Engineer Entities from and against any and all claims, suits, liability, damages, injunctive or equitable relief, expenses, including attorneys' fees, expert fees and costs, which arise from, or which is related to, the existence,

disposal, release, discharge, treatment, or transportation of hazardous materials, or the exposure of any person to hazardous materials, or the degradation of the environment due to the presence, discharge, disposal, release of, or exposure to, hazardous material.

11.2.2 Indemnification Provisions

If any indemnification provision is imposed upon the Engineer Entities, such provisions shall not create, exceed, exert, or establish any greater rights, obligations, or responsibilities than those presently existing under the laws of negligence of the State of California, and the applicability of such provisions shall be limited to the insurance limits recoverable for such damages and losses. Engineer's obligations for defense and/or indemnity resulting from such a provision or provisions shall be subject to and construed in accordance with California Civil Code Section 2782.8.

11.3 Third Party Indemnification

Client agrees to defend, indemnify, and hold Engineer harmless from and against any and all third party claims, demands, causes of action, losses, damages, penalties, judgements, and awards together with Engineer's attorney's fees, expert fees and costs, except for those that are the result of Engineer's sole negligence or willful misconduct. Additionally, and in light of the fact that Engineer's scope of services under this proposal does not include inspection, analysis, or investigation of any kind into the design or construction of existing conditions at the Project, the Client agrees to defend, indemnify, and hold Engineer harmless from and against any and all claims, damages, liabilities, and costs, including all attorney's fees, expert fees and costs of defense, arising out of or in any way related to existing conditions at the project.

11.4 Continuing Agreement

Client and Engineer agree that any and all protections, limitations of liability, and indemnification agreements noted herein shall extend to the officers, partners, and employees of Client and Engineer, respectively.

12. **Engineer's Insurance**

Engineer shall obtain, if reasonably available: 1) statutory Workers' Compensation/Employer's Liability coverage; 2) Commercial General Liability; 3) Automobile Liability; and 4) Professional Liability insurance coverage in policy amounts not less than $1,000,000. Engineer agrees to issue certificates of insurance evidencing such policies upon written request.

13. **Ownership and Maintenance of Documents**

Client-provided documents will remain the property of Client. Unless otherwise specified in the Scope of Work, all documents and information obtained or prepared by Engineer in connection with the performance of the Services, including but not limited to Engineer's reports, boring logs, maps, field data, field notes, drawings and specifications, laboratory test data, and other similar documents (collectively called "Documents") are the property of Engineer, and Engineer shall, in its sole discretion, have the right to dispose of or retain the Documents. Reuse of Engineer's documents for any purpose other than for this Project requires express written authorization from Engineer. Client agrees to defend, indemnify, and hold Engineer harmless from any and all claims resulting from any unauthorized use of Engineer's Documents.

14. **Relationship of the Parties**

Engineer shall perform Services under this Agreement as an independent contractor, and its employees shall at all times be under its sole discretion and control. Engineer shall select the means, manner, and method of completing Services without detail, control, or direction from Client.

15. **Third Party Reliance Upon Reports**
All Documents are prepared solely for use by Client and shall not be provided to any other person or entity without Engineer's prior written consent, nor shall they be mentioned, communicated, disclosed, or referred to in any offering circular, securities offering, loan application, real estate sales documentation, or similar promotional material, without the express written authorization of Engineer. Client shall defend, indemnify, and hold harmless Engineer, its officers, shareholders, and employees, including Engineer's attorney's fees, expert fees and costs, from and against any action, claim, or proceeding brought by any person or entity claiming to rely upon information or opinions contained in reports or other documents provided to such person or entity, published, disclosed, or referred to without Engineer's written consent.

No other party other than Client may rely, and Client shall make no representations to any party that such party may rely, on Documents without Engineer's express written authorization.

Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Client or the Engineer. Engineer's services under this Agreement are being performed solely for the Client's benefit, and no other entity shall have any claim against the Engineer because of this Agreement or the performance or non-performance of services hereunder. The Client agrees to include a provision in all contracts with contractors and other entities involved in this project to carry out the intent of this paragraph.

16. **Assignment and Subcontracts**
Neither party shall assign this Agreement, or any part thereof, without the written consent of the other party. Engineer may subcontract for the services of others without obtaining Client's consent where Engineer deems it necessary or desirable to have others perform certain Services.

17. **Suspension and Delays**
Client may, at any time, by ten (10) days written notice, suspend performance of all or any part of the Services by Engineer. Should such suspension continue for a period of sixty (60) days, then Engineer may terminate this Agreement and Client shall pay Engineer as set forth under Section 17, "Termination".

18. **Termination**
18.1 Termination for Convenience
Engineer and Client may terminate this Agreement for convenience upon thirty (30) days written notice delivered or mailed to the other party.
18.2 Termination for Cause
In the event of material breach of this Agreement, non-breaching party may terminate if upon ten (10) days written notice, personally delivered, mailed, first class mail postage prepaid, or by electronic transmission with proof of receipt to the other party, which termination notice shall state the basis for the termination. The Agreement shall not be terminated for cause if the breaching party cures the breach within the ten (10) day period.
18.3 Payment on Termination
In the event of termination, other than caused by a material breach of this Agreement by Engineer, Client shall pay Engineer for the Services performed through the termination notice date, and for any necessary Services and expenses incurred in connection with the termination of the project, including but not limited to, the costs of completing analysis, records, and reports necessary to document job status at the time of termination, and costs associated with termination of subcontractor contracts. Such compensation shall be based upon the schedule of fees then currently used by Engineer.

18.4 Claims Waiver

Client and Engineer hereby waive all claims against each other for punitive and consequential damages including, but not limited to, loss of use or lost profits.

19. **Disputes**

All disputes between Engineer and Client shall be subject to non-binding mediation. Either party may demand mediation by serving a written notice stating the essential nature of the dispute, the amount of time or money claimed, and requiring that the matter be mediated within forty-five (45) days of service of notice. The mediation shall be administered by JAMS Orange County in accordance with their most recent construction Mediation Rules, or by such other person or organization as the parties may agree upon.

No action or suit may be commenced unless the mediation did not occur within forty-five (45) days after service of notice, the mediation occurred but did not resolve the dispute, or a statute of limitation would elapse if suit was not filed prior to the forty-five (45) days after service of notice.

20. **Attorney Fees / Venue / Arbitration**

Client and Engineer agree that the laws of the State of California govern the construction and interpretation of this Agreement and any dispute between the parties, including without limitation, disputes arising out of or relating to this Agreement, the professional relationship between the parties, and the professional services rendered by Engineer to Client shall be decided by binding arbitration under the arbitration rules of the JAMS to take place in Orange County, California. The fees for the arbitration and the arbitrator shall be divided equally between the parties subject to adjustment by the arbitrator. The arbitrator shall set forth his or her findings in writing and served upon the parties. The arbitration award may be enforced by the Orange County Superior Court. In the event enforcement proceedings and/or legal action arises relating to this Agreement, the interpretation thereof, or the failure of any party to perform the terms of Agreement, the prevailing party in the arbitration as well as in such action shall be, in addition to damages, injunctive relief or any other relief, entitled to reasonable attorneys' fees and costs incurred in such an action. The parties waive their rights to a trial by jury.

21. **Integration and Severability**

These General Conditions and any attached proposal(s) reflect the entire Agreement of the parties with respect to its terms and supersedes all prior agreements, whether written or oral. If any portion of this Agreement is found to be void or voidable, such portion shall be deemed stricken and the Agreement shall be reformed to as closely approximate the stricken portions as the law allows.

◆ ◆ ◆

End of General Conditions

February 22, 2024

Request for Proposal (RFP) for

Pavement Management Plan 2026-31

Fire Access Maintenance District #1
Attn: District Manager Scott Matas
42-635 Melanie Place, Suite 103
Palm Desert, CA 92211

IMS
POWERED BY ICC

IMS Infrastructure Management Services
10630 75th Street North
Largo, Florida 33777
(727) 547-0696
www.icc-ims.com

February 22, 2024

Fire Access Maintenance District #1
Attn: District Manager Scott Matas
42-635 Melanie Place, Suite 103
Palm Desert, CA 92211

Dear Selection Committee,

IMS Infrastructure Management Services is pleased to submit our proposal in response to the FAMD #1/Indian Wells Country Club Community solicitation. IMS is an industry leader with 49 years of pavement and asset management experience. Since our founding, we have provided services like those requested by your community to more than 1,000 municipalities across the United States and 50 in the Golden State since 2010, including CVAG and Palm Springs.

While there are several qualified firms that can survey this project, IMS offers the Community something more:

- **High-quality support focused on accurate data and informed decisions.** We believe in the power of precise data. Our analyses are rooted in accuracy, ensuring that you have the information needed to make the best decisions for your community.
- **Think outside the box to maximize your return on investment.** We have encountered many issues that similarly sized agencies face and understand the importance of high-quality pavement condition data to plan for and justify necessary funding. When you choose IMS, you gain a dedicated partner. Our support backed by decades of proven experience results in better outcomes and often translates into direct program cost-savings.
- **As an added value, we are pleased to offer the Community complimentary access to our pavement and asset data visualization software Inform™.** Inform is a convenient, web-based tool that simplifies visualization of data and associated imagery and allows clients to customize search parameters based on the agency's GIS. Inform is fast, intuitive, and offers the simplest way to make valuable photologs available agency-wide with no license restrictions on number of users.

Thank you again for the opportunity to submit our proposal. My colleagues and I truly look forward to working with the Community. I am the official contact person for any questions regarding our submission and contract negotiations should IMS be selected; I may be contacted by phone at (480) 741-1847 or by email at jtourek@imsanalysis.com.

Best regards,
IMS Infrastructure Management Services

Jim Tourek, Client Services Manager

Table of Contents

Firm Overview

IMS Infrastructure Management Services, now powered by International Cybernetics Company (ICC), has revolutionized roadway infrastructure management since 1975. With the 2022 merger of IMS and ICC, the IMS team of infrastructure consultants is now backed by ICC's industry leading data acquisition technologies. We take pride in having one of the industry's largest fleets of advanced pavement, sidewalk, and right of way (ROW) asset data collection systems.

Over the past five years, we have made a $5 million investment in enhancing our Unify™ software suite, solidifying our position as an industry leader in providing fully integrated, end-to-end data collection, processing, and visualization tools. Our advanced systems—combined with our rigorous approach to quality control (QC)—empower us to generate unparalleled data quality while setting the industry benchmark for the fastest turnaround time. The actions that we have taken over the past five years illustrate our continued commitment to improving data quality while simultaneously reducing data collection costs for our clients.

We offer the following pavement management services:

- Automated and semi-automated pavement condition assessments.
- Non-destructive pavement testing and analysis.
- Pavement management system implementation and training.
- Pavement management plan development.

In addition to pavement management services, IMS offers complementary services such as:

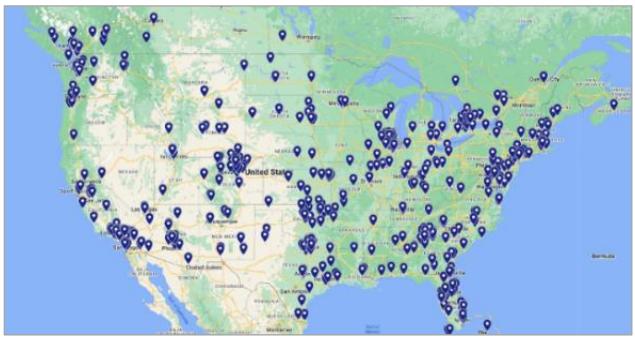
- ROW asset inventory development using 360° imagery and mobile lidar.
- Sidewalk and Americans with Disabilities (ADA) compliance surveys.
- Data visualization services using dashboards, Story Maps, and web applications built on GIS.

Welcome to the new era of infrastructure management, where consulting services are powered by advanced technologies. Together, IMS powered by ICC are paving the way forward!

FIRM QUALIFICATIONS

- **49 years of experience** helping cities and counties assess, analyze, and manage pavements and ROW assets, **with successful project delivery for more than 1,000 municipalities** in that time
- **87 employees** across the United States and Canada**, including 10 engineers (six possessing PhDs)**
- Extensive experience with more than **15 pavement and asset management systems**, including, AgileAssets, Cartegraph OMS, Cityworks, Lucity, PAVER, StreetLogix, StreetSaver, VUEWorks, and others
- Project teams led by Professional Pavement/Infrastructure Engineers
- Largest fleet of second generation laser crack measurement system (LCMS-2) equipped IrisPRO Pave data collection vehicles dedicated to municipal pavement management in the United States
- QC/QA technicians independently certified through the rigorous Orange County Transportation Authority (OCTA) for ASTM D6433 condition rating

Firm Qualifications and Experience



Our technical team completes more than 100 pavement and asset management projects annually and stands second to none in our ability to establish cost effective maintenance management programs for large and small agencies alike. We have earned a reputation for excellence over the course of thousands of projects for municipal clients across the United States performed over almost five decades.

State of California Experience

IMS brings significant regional experience to meet the Community's pavement management needs as shown in the table below. We have completed more than 50 projects in the Golden State and have analyzed 4,965 miles of pavement condition data using ESA for 20 California municipalities. The following table provides a summary of the size and type of projects IMS has completed in California.

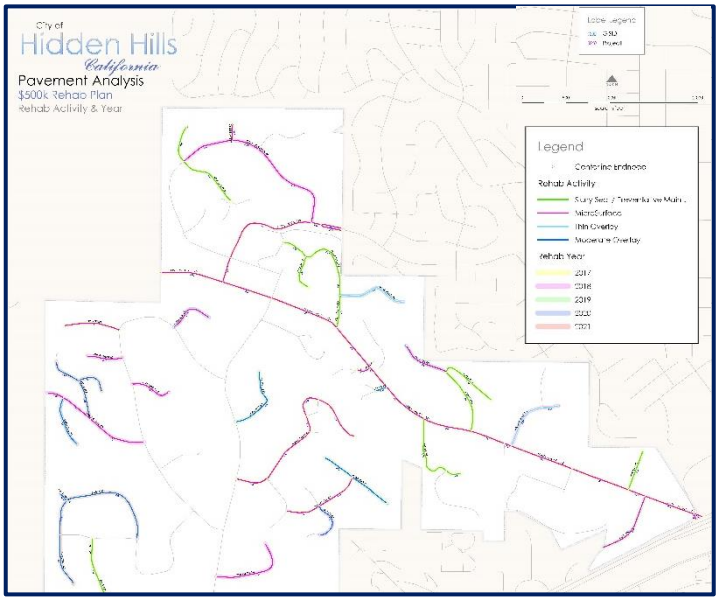
California Agency	Miles	Software	Year(s) Awarded
Anaheim	734	Lucity	2015
Arcadia	234	ESA	2017, 2021
Azusa	169	ESA	2020
Beverly Hills	172	Lucity	2013, 2017
CA Dept. of Water Resources	920	RoadMatrix	2016
Calabasas	75	ESA	2011, 2019
Cerritos	173	PAVER	2013, 2018, 2023
Chino	340	Streetlogix	2022
Claremont	250	Sidewalks	2016
Colton	150	ESA	2017
Del Mar	38	ESA	2013
Downey	257	PavePRO	2010, 2014, 2016
El Monte	207	ESA and PAVER	2016, 2022
Escondido	391	PAVER	2021
Exeter	55	ESA	2019
Farmersville	38	ESA	2021
Fontana	634	Lucity	2015, 2021
Garden Grove	435	PAVER	2022
Hemet	300	Condition rating survey	2022
Hidden Hills Community Assoc.	13	ESA	2017
Imperial Beach – NV5	70	ESA	2016
Imperial City	65	Lucity	2013
Imperial County	1334	PAVER	2011
Irvine	651	ESA and PAVER	2020, 2022
Jurupa Valley	417	StreetSaver	2018

California Agency	Miles	Software	Year(s) Awarded
Laguna Beach	75	PAVER	2011
Lake Forest	170	StreetSaver	2022
Lancaster	249	ESA	2018
Long Beach	1246	Lucity	2022
Manhattan Beach	110	RoadMatrix	2010
Monterey	127	StreetSaver	2013
Monterey Park	120	PAVER	2010
Moorpark	136	PAVER and ESA	2022
Oceanside	600	Lucity	2015, 2023
OCTA Highway 91	50	StreetSaver	2023
Palm Desert	126	PAVER	2010
Palos Verdes Estates	74	Data only	2022
Pasadena	420	Lucity	2019
Pico Rivera	177	StreetSaver	2021
Port of San Diego	14	Data only	2022
Porterville	275	ESA	2021
Rancho Mirage	119	ESA	2011, 2022
Redondo Beach	150	RoadMatrix	2011
Ridgecrest	180	ESA and StreetSaver	2023
Riverside	1061	Lucity	2017, 2021, 2022, 2023
Sacramento	600	RoadMatrix	2011
San Bernardino County	108	Data only	2022
San Joaquin County (Pilot)	108	ESA and StreetSaver	2021
San Luis Obispo	186	StreetSaver	2011, 2013, 2015, 2017, 2019, 2021
Santa Monica	249	ESA and PAVER	2022
Santee	136	ESA	2017, 2022
Solana Beach	44	PAVER	2016
South El Monte	50	ESA	2018
Sutter County	165	Lucity	2010
Tehama County	1660	ESA and StreetSaver	2022
Temecula	400	Lucity	2018
Visalia	703	Lucity	2019
Yucaipa	239	ESA	2012, 2017
Upland	418	Sidewalks	2023

References

Many of our clients hire us for repeat work and rely on IMS to help maintain their pavement management programs. Feel free to contact the following reference for projects of similar size and scope in the State of California. We are happy to provide additional references at the Community's request.

Hidden Hills Community Association, California – 2017



The Community Association selected IMS to perform a pavement condition assessment of their paved network back in 2017 utilized a laser-RST to perform a pavement evaluation survey on 14 test miles. Following a rigorous in-house QA/QC process of the data captured, our engineering team was able to provide the data in our Easy Street Analysis (ESA) solution. Using these tools, IMS worked with the stakeholders to examine different budget models for rehabilitation projects and delivered a final written report including a 5-year pavement management plan. **Reference:** Ron Heston **Phone:** (818) 591-1883 **Email:** ron@hestondesign.com
Ronald Heston, Inc 23801 Calabasas, Suite 1020, Calabasas, CA 91302

City of Calabasas, California – 2011, 2018

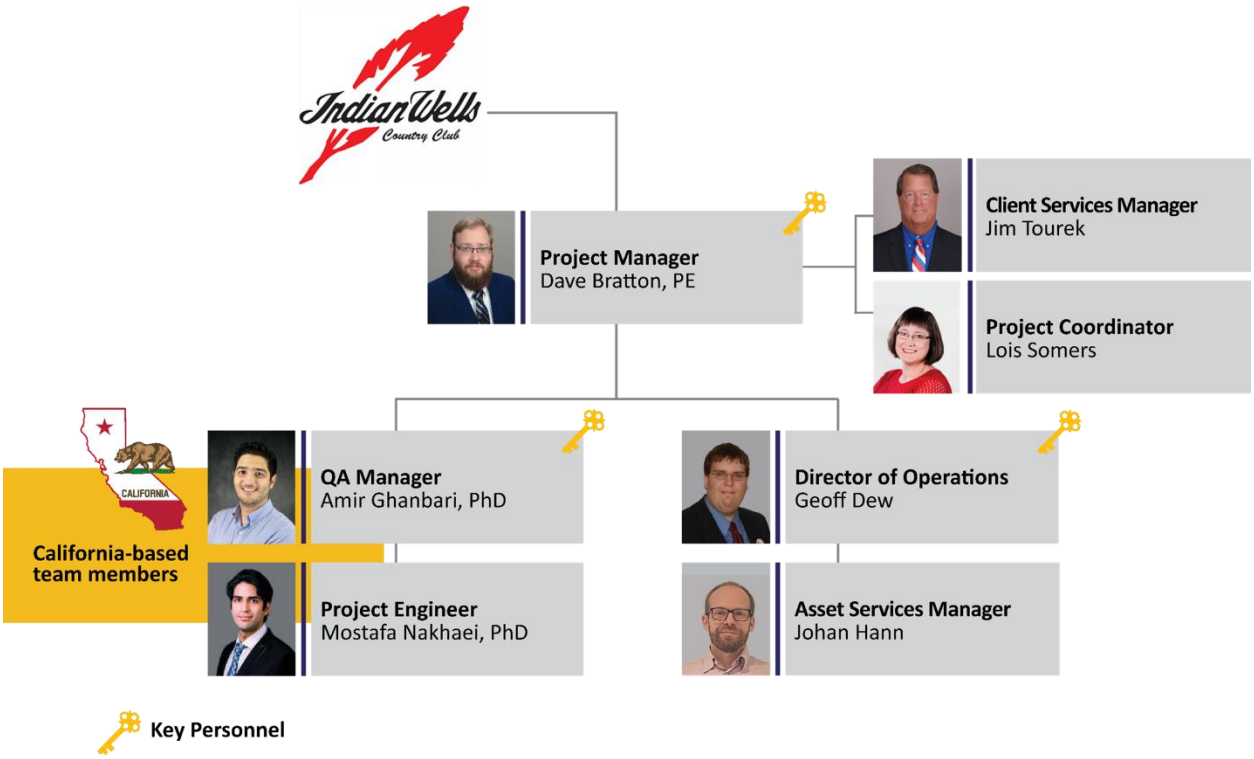
IMS has been awarded two pavement management program updates for the City of Calabasas in 2011 and again in 2018. The projects consisted of pavement condition surveys for 75 test miles that included digital images and deflection testing on the arterial and collector roadways to enhance the pavement analysis. The IMS engineers developed individual pavement analysis studies and reported on the results for the city's roadway network. The results and final report were delivered to the city. **Reference:** Alba Lemus, Associate Civil Engineer **Phone:** (818) 224-1677 **Email:** alemus@cityofcalabasas.com

City of Yucaipa, California – 10 projects since 2006, including 2023-24

The City selected IMS to perform a pavement condition assessment of their paved network back in 2004 and we have continued to collaborate with the city often. Most recently, in 2023, IMS was awarded this project. Our team completed a pavement assessment survey of the City's 290-mile roadway network using the LCMS-2 RST technology. Once IMS performed thorough QA/QC on the field data, it was prepared for loading into the Easy Street Analysis (ESA). IMS is currently working with the City's engineering staff on the ESA analysis. Once the analysis is complete, IMS will provide a final written 5-year pavement management report. **Reference:** Kevin Garcia, Assistant Engineer **Phone:** (909) 797-2489 **Email:** kgarcia@yucaipa.org

Team Organization

The IMS team, comprised of 87 employees, includes 10 engineers (six possessing PhDs), eight independently certified pavement raters, and 18 data and GIS technicians focused exclusively on pavement and ROW asset management. **In addition, 13 of our engineers and technicians are independently certified Pavement Condition Index (PCI) raters through the Orange County Transportation Authority's (OCTA) rigorous annual certification program.** Our team is accustomed to working on multiple projects at a time, and we adjust resources on a routine basis to ensure that we have the staff and equipment required to meet project milestones. **Those summarized below will be assigned to the Community for the duration of the project.** They have been selected for their regional experience, unique knowledge, and current availability/workloads.



Our proposed team is supported by additional resources that, if needed, can provide extra capacity or specialized expertise for the project. We are accustomed to mobilizing additional personnel and fleet equipment as required to meet the schedule.

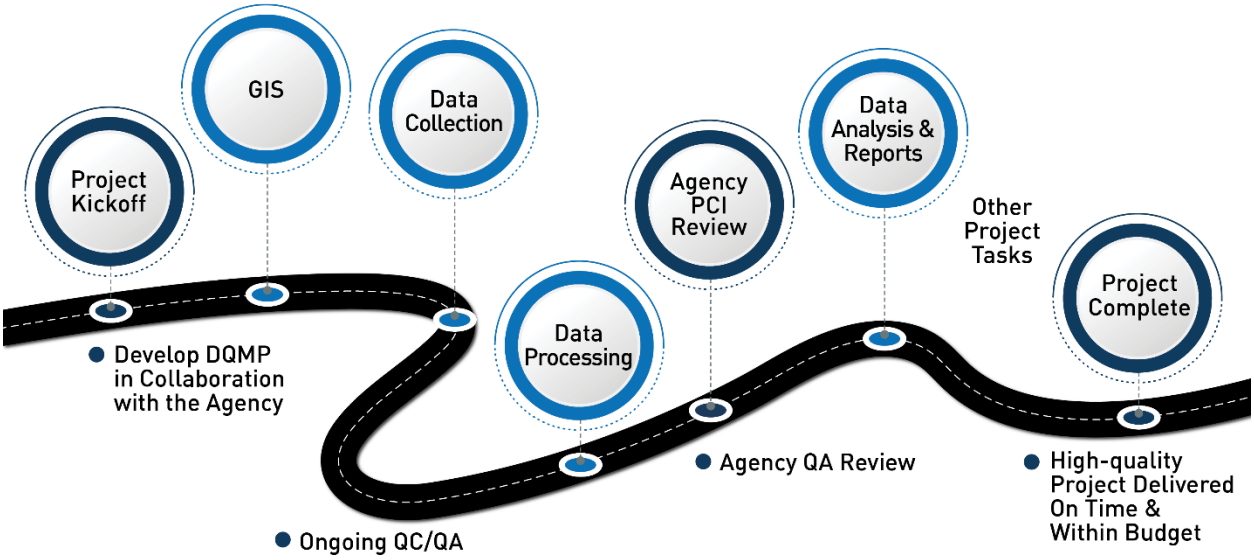
Qualifications and Responsibilities

Key Personnel	Qualifications Summary, Unique Knowledge to Benefit the Community, and Primary Responsibilities
Dave Bratton, PE* **Project Manager** 13 Years' Experience/13 with IMS	Project manager for recent City of Irvine, Tehama County, City of Pico Rivera, City of San Luis Obispo, California projects; OCTA certified pavement rater. **Unique Knowledge:** Fluent in StreetSaver, PAVER, Lucity, Cartegraph, and others. **PE licensed IL, TX*
Dave's Primary Responsibilities: Overall project management. Works closely with the City to review and confirm project goals, objectives, deliverables, schedules and project success. Ensures the City's quality, schedule, and budget goals are met.	
Amir Ghanbari, PhD **QA Manager** 10 Years' Experience/2 with IMS	Worked with Project Manager Dave Bratton to review survey maps, GIS linkages, process condition data, and develop draft reports on three recent projects of similar size and scope. Local in Anaheim, California and OCTA certified pavement rater. **Unique Knowledge:** PhD in Pavement Engineering; fluent in PAVER and StreetSaver.
Amir's Primary Responsibilities: Ensures that the City receives the highest quality deliverables possible by working closely with the project manager and QC/QA technicians. Develops the project-specific QC/QA plan with required specifications for the City's review and approval.	
Geoff Dew **Director of Operations/GIS & Data Processing Manager** 18 Years' Experience/5 with IMS	Has worked with all team members on recent projects, managing the data processing team and associated tasks. **Unique Knowledge:** 500,000 miles of data processing for 12 DOTs, including delivering more than 3.5 million unique assets across 70 different asset types.
Primary Responsibilities: Efficient management of the data processing team with an eye on integrity.	
Johan Hann **Asset Services Manager** 22 Years' Experience/1 with IMS	Manages IMS' LCMS-2 fleet and is experienced in pavement evaluation technologies such as automated pavement condition survey with Ramboll (RST), Cybernetics RT, and 3D LCMS-2, Lidar, falling/heavy/ lightweight deflectometer and dynaflect, and GPR. **Unique Knowledge:** Provides a clear vision and builds tailored solutions that optimize clients' ROI.
Primary Responsibilities: Asset management support to individual pavement condition data collection, data analysis, and pavement management system installations.	
Mostafa Nakhaei, PhD, EIT **Project Engineer** 9 Years' Experience/2 with IMS	Engineer and senior data scientist with nine years of professional experience dedicated to pavement engineering. Well-versed in several pavement management programs including PAVER. Local in California. **Unique Knowledge:** With dual degrees in Data Science, has developed several computer programs such as "MASTIC" and "Back-MASTIC" for layered elastic analysis/pavement modulus back calculation.
Mostafa's Primary Responsibilities: Reviews and assists with data processing and project deliverable development. Performs QC functions as a peer reviewer.	
Lois Somers **Project Coordinator**	Supports the success of the full project lifecycle, documenting intently through each project phase. Leads document control

Key Personnel	Qualifications Summary, Unique Knowledge to Benefit the Community, and Primary Responsibilities
29 Years' Experience/29 with IMS	activities and facilitates clear project team communication to support overall success. **Unique Knowledge:** Organized, detail-oriented, and experienced with numerous agency project control procedures nationwide.
Lois's Primary Responsibilities: Leads project coordination and document control efforts for the team. Facilities clear communication and documentation to support the overall success of the project.	
Jim Tourek **Client Services Manager** 31 Years' Experience/10 with IMS	Has been at the helm of pavement and ROW asset management on more than 250 successful projects for clients ranging from small cities to large government municipalities. **Unique Knowledge:** Transparent approach with a deep understanding of resource needs and logistics.
Jim's Primary Responsibilities: Ensures overall client service satisfaction. Serves as the long-term contact for the County, before, during, and after project completion.	

Project Approach

IMS has standardized a project approach based upon our 49 years of pavement management experience and the subsequent lessons learned after performing thousands of projects. Detailed conversations with our clients allow us to tailor solutions specific to the needs of the individual agency. The IMS project approach for pavement condition and asset inventory projects typically follows the eight steps shown in the figure below. In this section, we detail the specific tasks and milestones that will be required for the successful completion of this project.



GIS Survey Mapping & Network Referencing

Data collection is unique in every jurisdiction. To facilitate a standard approach that yields deliverables tailored to our clients' needs, we developed our Unify™ Software Suite that includes Drive™ for data collection, Connect™ for data processing, and Inform™ for online visualization. Our comprehensive software suite relies on street centerline GIS data provided by the Community to build all successive processes, which include calibration, collection, processing, analysis, and reporting.

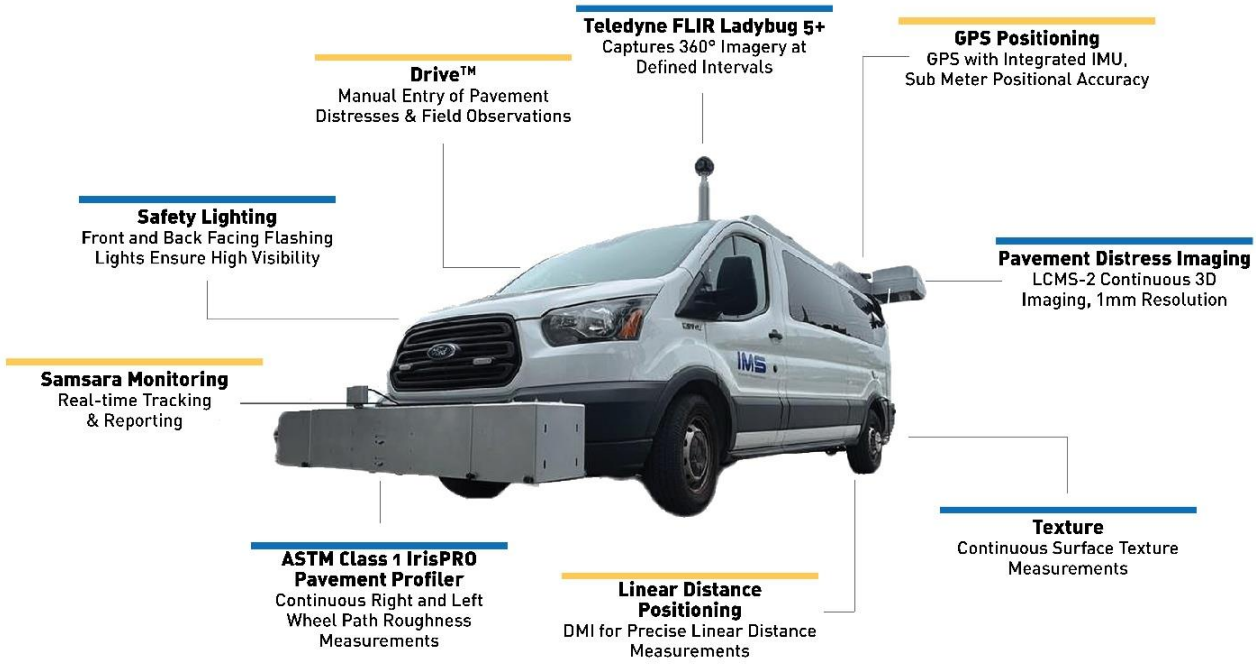
We will review the Community's road network GIS files that define the extents of the survey and compare them against existing pavement database street segments. If discrepancies exist, they will be noted and reviewed with the Community before data collection begins. We will load the finalized road network into Drive™, which defines the pavement network segmentation and attribution to be collected, minimizing routing problems and location errors.

The GIS files will include attributes such as road section ID, street name, street type, beginning and ending descriptions, and start and end references for each segment. Data collection will then take place using one of our IrisPRO Pave data collection vehicles. Upon completion of data collection, Connect is used to automatically extract data from the sensors on the IrisPRO Pave and combine it with location information and imagery. The output from Connect may be uploaded to Inform™ for convenient visualization.

Pavement Condition Survey

Our two-person field crews will collect both outward facing and downward facing pavement imagery, using one of our IrisPRO Pave data collection vehicles equipped with second generation Laser Crack Measurement System (LCMS-2) 3D pavement imaging technology. Pavement surface distresses including alligator cracking, block cracking, rutting, raveling, reflective cracking, loss of section, bleeding, edge distress, and patched areas as well as right of way (ROW) imagery will be collected on a segment-by-segment basis, with each distress captured by type, extent, and severity as outlined in ASTM D6433.

The data and imagery that is collected is then linked to the Community's existing GIS data. The LCMS-2 system is the highest resolution 3D pavement scanning technology available. Each LCMS-2 system relies on two downward-facing, high-resolution 3D cameras. Combined, the two 3D cameras capture continuous downward imagery for more than a standard lane width. The cameras are coupled with downward-facing lasers that provide constant and consistent illumination of the pavement surface, regardless of ambient lighting conditions. The impacts of shadows from trees, buildings, or simply overcast sky conditions are eliminated by the laser illumination.



IMS has the largest fleet of IrisPRO Pave data collection vehicles equipped with LCMS-2 technology dedicated to municipal pavement management

The 3D cameras can detect one-millimeter-wide cracks and full-lane-width rutting, as required by ASTM D6433, on the pavement surface at speeds up to 65 mph. **The versatility of the LCMS-2 technology provides added value to the Community since the automated pavement condition survey and data collection can be performed at posted speeds without the need for traffic control.** Pavement data collection and imagery surveys are expected to progress at a rate of between 30 and 50 miles per day for the Community.

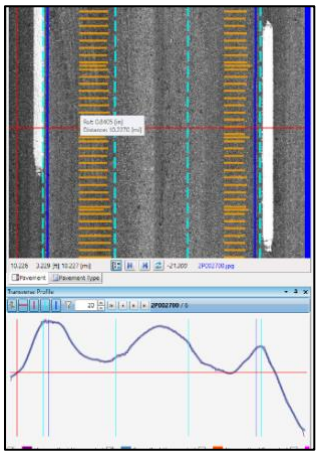
Once the pavement survey is complete, the IMS team processes the collected data using Connect software, a combination of advanced analytical tools, and quality control/quality assurance (QC/QA) checks to determine accurate and repeatable PCI values for each roadway segment. We perform a rigorous, manual QC/QA process conducted by IMS' certified PCI raters to further ensure data accuracy. In addition, we deliver our PCI ratings and supporting data (inventory, distress, rutting, and international roughness index [IRI] information) in both spreadsheet and GIS formats for easy review. The data that we provide may be used immediately for decision making or be imported into any pavement management software for additional analysis and reporting.

Any distresses that are not captured by the automated LCMS-2 technology will be captured by our trained in-vehicle distress raters. The automated data is supplemented by information collected by the second crew person in the van using a mobile mapping solution known as Drive™. **The Drive™ file format is part of IMS' unique approach to pavement condition surveys.** Drive™ files contain useful information for our field crews, including direction routing information and one-pass versus two-pass data collection instructions. They allow our trained field staff to capture additional condition and inspection information used by our QC/QA team to validate condition data.

We perform the following activities daily during data collection to ensure data consistency:

- Equipment is calibrated and daily reports completed
- All sensors are continually monitored to ensure they are receiving data within specification
- The LCMS-2-equipped IrisPRO Pave crew chief and operator manually monitor the HD digital images, GPS, distress recorder, roughness measurements, and rutting data
- Each street is noted within the inventory and on the map as well as through GPS and assignment by van number
- Production is tracked and records of coverage are documented
- If necessary, a corrective action plan is developed and followed
- All data is backed up and sent to the IMS primary office for processing

Rutting and Roughness



The LCMS-2 systems detect rutting on asphalt roadways using laser measurements of transverse profiles that are collected continuously as the IrisPRO Pave drives at normal traffic speed. With more than 4,000 measurement points collected per transverse profile and sub-millimeter vertical accuracy, the LCMS-2 can define transverse profiles with a high level of precision, accuracy, and repeatability. Once all the transverse profiles are collected for a roadway, IMS determines the rut area and the deepest (or maximum) rut depth for each segment. These values, as well as width of rut and color coding, can be seen in the LCMS-2 laser image to the right.

Orange represents high severity rutting, while yellow represents moderate severity rutting. The severities are determined based on maximum rut depth thresholds that are specified in ASTM D6433.

Pavement roughness is evaluated by measuring the accumulated difference in the vertical displacement of a road surface, independent of chassis response, over a prescribed road length (longitudinal profile). Roughness is typically reported following the International Roughness Index (IRI) index, which is calculated in real time from continuous longitudinal profile data collected by the IrisPRO Pave's ASTM Class 1 IrisPRO pavement profiler. To determine the longitudinal profile, data is simultaneously obtained in compliance with ASTM E950 from three devices: a pulse transducer-based distance-measuring instrument (DMI), high-speed RoLine™ lasers, and an accelerometer.

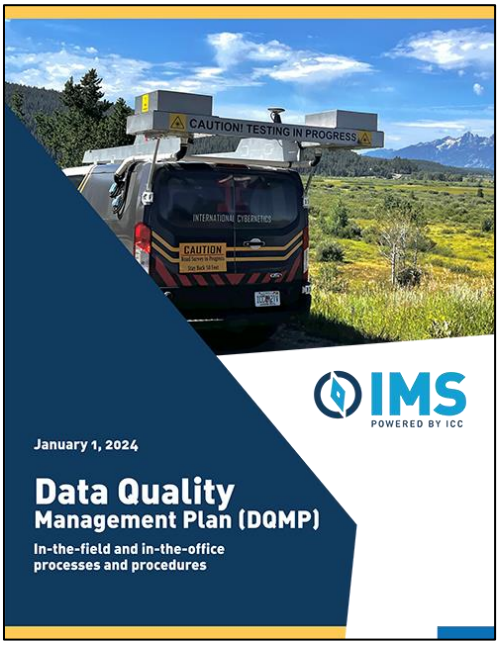
Quality Control and Quality Assurance Procedures

Quality Management Plan Development

Based on discussions with the Community during the project initiation and kickoff meetings, we will develop a project-specific version of our standard data quality management plan (DQMP) for this project. The DQMP will be formalized with the Community's approval prior to data collection.

At a minimum, the plan will address the following:

- How the data collection equipment will be calibrated and certified
- What data quality control (QC) measures will be conducted before data collection begins and periodically during data collection
- How data will be sampled, reviewed, and checked for quality
- What error resolution procedures will be followed
- How data will be accepted



IMS' standard DQMP, which is customized for each client's project

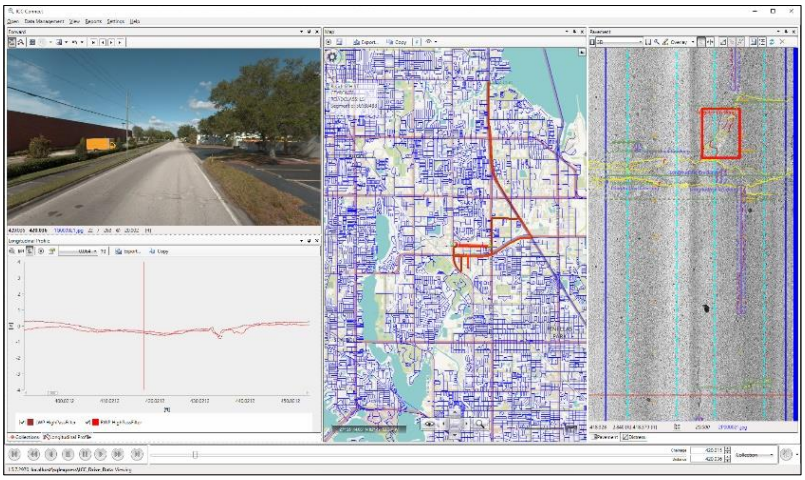
Data Quality Monitoring

During the collection and processing workflow, data discrepancies are detected in the following three ways. These processes are run on 100% of the collected and processed data. Any road sections with data discrepancies arising from sensors, systems, or processing that exceed the defined thresholds will be recollected and/or reprocessed, as necessary.

- **During data collection** through real-time health monitoring systems onboard the RST van
- **During data processing** in Connect's data import module using data quality checks that include data completeness and data synchronization validation
- **During data reporting** in Connect's report generation module through sensibility and range checks

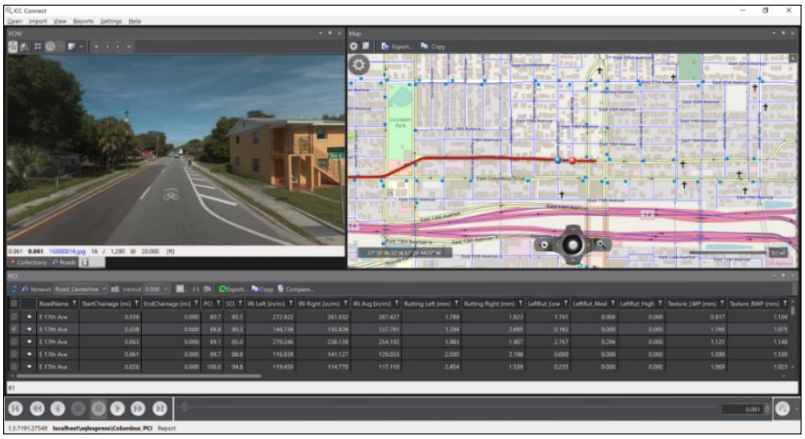
Image Sample Checking and Distance/Location Verification

IMS will review a random sample of pavement images to confirm the accuracy of reported distress data using our Connect software. The detailed distress data for each image, including cracking and the classified and rated distresses, are superimposed over the image as well as displayed in a table. This allows QC reviewers to efficiently review and confirm that the condition of the road has been surveyed accurately.



Connect with distress data review

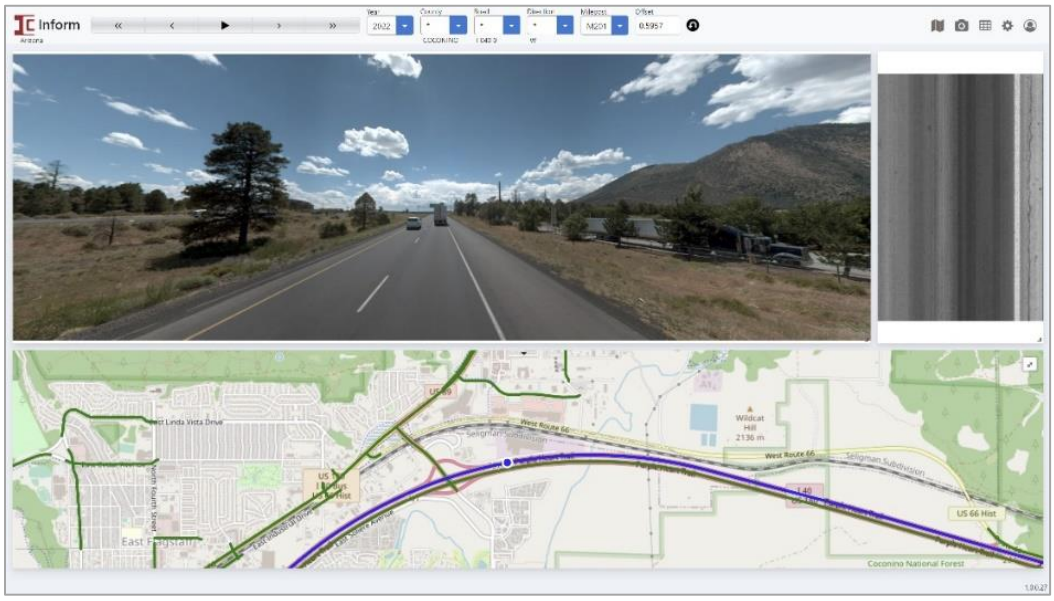
Connect also shows the vehicle GPS traces (collection polylines) overlaid on a street view map or an aerial image. They are shown together with the Community-provided GIS shapefile polylines to provide quick and easy verification that the correct sections were driven, that section limits were correctly identified, and that the vehicle GPS is accurate. This all-in-one processing software makes location errors and misplaced sections things of the past, and the transparency improves client confidence in the delivered data.



Connect with shapefile and GPS trace

Inform™ Pavement Data Visualization and Analysis Software

As an added value, we are pleased to offer the Community complimentary access to our pavement and asset data visualization software Inform™. Inform is a convenient, web-based tool that simplifies visualization of data and associated imagery and allows clients to customize search parameters based on the agency's GIS. Currently in use at Arizona DOT, Delaware DOT, and others, Inform is fast, intuitive, and offers the simplest way to make valuable photolog images available agency-wide with no license restrictions on the number of users.



Inform™ powerful, enterprise-grade pavement condition data visualization and analysis software

> *"… ADOT had specific requirements [that needed] to be met for our viewer. Inform met and Inform has not only met but also surpassed our expectations. It is quick, exceptionally responsive, requires no IT involvement, and is incredibly user-friendly for individuals of all levels."*
>
> *—Robert Bush, Program Manager, Arizona DOT*

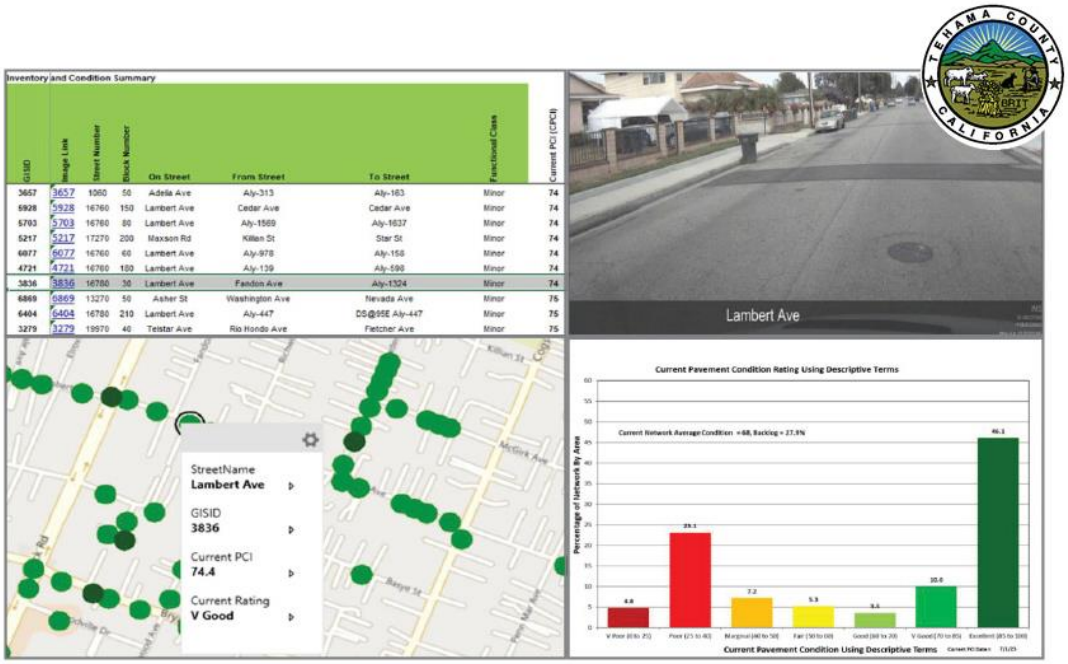
Data Upload

As an industry leader in pavement management services, we have encountered every third party pavement and asset management software implemented in North America today.

Easy Street Analysis (ESA) by IMS

IMS recommends leveraging our ESA. ESA integrates the core analysis capabilities of some of the most powerful pavement management systems within a familiar Microsoft® Excel environment. It is a pavement management tool designed to provide our clients with easy access to the pavement condition data and analysis results almost immediately, enhancing the use of traditional licensed-based software. Many of our clients rely on ESA for their comprehensive M&R planning needs.

ESA was engineered as a simple solution that eliminates the need for users to become pavement management software experts before they can leverage their survey results. Our interactive ESA spreadsheet is fully customizable to the needs of our clients and programmed to develop multi-year M&R plans built around practical prioritization techniques and financial optimization, typically as cost of deferral analyses. Results can be visualized using both Esri GIS software and the new Excel-based mapping tools as an added benefit.



Tehama County, California ESA data analysis

Upon completion of the pavement condition survey, condition data will be imported into ESA, validating that the data was uploaded properly, and configuring the operating parameters to reflect local conditions. This may include repair methods, rehabilitation alternatives, local unit costs, critical PCI thresholds, and others—all configured to produce reliable analysis routines and reports. **Our analysis will consider the Community's current 5-year maintenance cycle for local streets and planned arterial rehabilitation projects.**

Maintenance & Rehabilitation, Budgetary Analysis, and Reports

Once the data has been approved through the client review process, we will collaborate with the Community to review and update the existing pavement rehabilitation model parameters in ESA and conduct several pavement management scenarios as directed. We will assist the Community in the development of a multi-year Pavement Management Plan (PMP) compliant with the latest Measure M2/OC Go Eligibility, and built around practical prioritization techniques/ financial optimization, typically in the form of cost of deferral.

Our focus will be on applying the right treatment to the right pavement at the right time to maximize the use of limited funding over the course of the overall pavement lifecycle. IMS will use the funding levels provided by the Community to determine the annual funding required to maintain an average overall pavement condition and prepare investment benefit recommendations for the Community's future use. IMS incorporates pavement management principles that assist agencies in producing cost effective maintenance programs.

IMS will build the Community's 5-year Pavement Management Plan using ESA. We will use ESA for practical project formulation. Results from ESA can also be delivered as a geodatabase to be used with the Community's ArcGIS implementation.

Strategy (example)	PCI Range (example)	Criticality	Cost of Deferring the Activity	Priority
Preventive Maintenance	65 – 80 with limited load related distress	Non-Critical		10
		Critical (In their Need Year)	Too High	1
Thin Mill and Overlay	55 - 65	Non-Critical		8
		Critical (In their Need Year)	Low	5
Thick Mill and Overlay	45 - 55	Non-Critical		7
		Critical (In their Need Year)	High	2
Partial Reconstruction	25 - 45	Non-Critical		6
		Critical (In their Need Year)	Moderate	3
Full Reconstruction	0 - 25	Non-Critical		9
		Critical (In their Need Year)	None / Safety	4

IMS uses a rigorous, quality-tested prediction modeling and budget evaluation process to develop custom unit cost tables, decision trees, and scenario plans. We will customize ESA with Community-specific parameters before running several network-level "what-if" scenarios that explore the benefits and consequences of several budgets on long term pavement conditions and rehabilitation backlog. This includes analyzing useful life scenarios for segments within the Community's roadway network. Our goal is to build the most equitable, need-based multi-year programs for our clients.

Based on our team's regional experience and with significant input from the Community, we will build an ESA pavement maintenance decision tree. The decision tree will consider the M&R strategies that are available to the Community, and we will provide recommendations for treatments that the Community may consider including in their arsenal. Ultimately, the decision tree is the foundation for accurate budget needs analyses. In determining treatment unit costs, we will review data available from Community (e.g., bid tabs, engineer's estimates) for and compare to regional average costs. We will then recommend maintenance treatment unit costs for each treatment chosen in the decision tree.

Additional Value-added Services

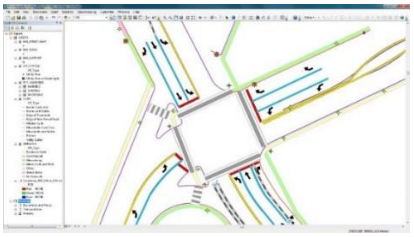
IMS offers the following additional services to optimize clients' pavement and asset inventory management programs.

Structural Testing with Fast Falling Weight Deflectometer (FastFWD)

IMS offers additional pavement testing techniques to **enhance decision-making and project prioritization.** The FastFWD applies a dynamic load to the pavement surface to measure structural capacity and pavement layer stiffness values. We integrate the structural index (SI) as a component of each roadway's final PCI to help you better predict future performance and fine-tune rehabilitation activities, such as determining when to replace overlays.

ROW Asset Collection

Imagery collected during the pavement condition survey can be used to build ROW asset inventories and condition assessments for signs, sign supports, curb and gutter, sidewalks and multi-use trails, ADA ramps, pavement markings and striping, traffic signals, and many others. While we offer multiple methods for collecting ROW asset data, which is a primary component of nearly half of all IMS' projects, this is the most efficient.

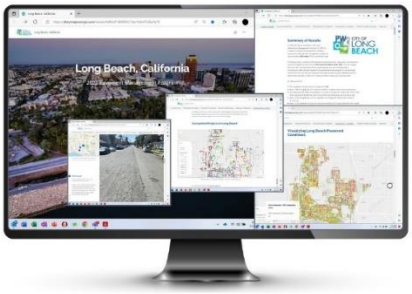


Inform™ Data Hosting

IMS offers a convenient, web-based tool for reviewing pavement condition data and associated imagery. Our cloud-hosted visualization and analysis software Inform™ enables agencies to review all collected pavement data. The software is fast, intuitive, and the simplest way to make valuable photolog images available to every user. One year of complimentary hosting is included with all IMS projects. Competitive pricing for data hosting in year two and beyond is available upon request.

Web-based GIS Visualization

Easy-to-use and easy-to-maintain web-based, geocentric Story Maps and Dashboards can be built to serve not only internal staff but also constituents. These tools provide a dynamic way to present complicated information visually.



Sidewalk Surveys with SST

Sidewalk Surveys with SST – Deployed for capturing sidewalk inventory and condition data, SSTs may also be deployed to collect data for narrow alleys, parking lots, bike paths, and multi-use trails. SST surveys yield comprehensive sidewalk condition data that may be used in combination with Lidar sidewalk ramp data to develop detailed ADA transition plans.

Mobile Lidar for Pedestrian Curb Ramp Assessments

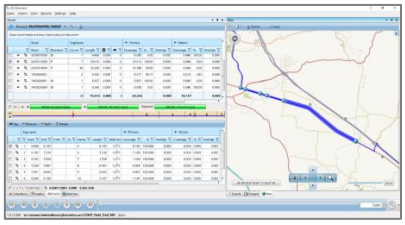
Mobile Lidar for Pedestrian Curb Ramp Assessments – Deployed to supplement ROW inventory surveys by creating a 3D point cloud from which measurements can be extracted. The integrated Ladybug5+ camera captures high-resolution spherical imagery at defined intervals.

Friction Testing

Friction Testing with SFT – In the last five years alone, ICC has successfully completed 174 friction testing projects. The friction of the pavement surface is measured in accordance with ASTM E274 and incorporate a ribbed tire in accordance with ASTM E501 for studies of the left wheel path at each site.

GIS Clean-up Services

IMS reviews the integrity of the agency's GIS to ensure that segmentation conforms to pavement management best practices and attribution is correct.



In-person Council Presentations and Additional Meetings

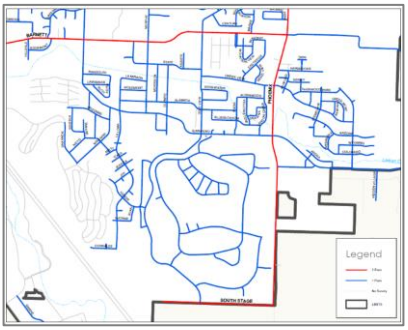
IMS is often asked to develop and deliver a council presentation to educate council members and the public on the concepts of pavement management and the results of the surveys, health of the roadway network and recommendations as a value-added service. Web-based GIS visualization such as Dashboards and Story Maps are often used to enhance the in-person council presentation.

Enhanced Written Report and Specialty Maps

IMS will prepare all project documentation, including a draft and final summary report of the findings and conclusions as part of the project. Additional analyses and specialty maps may be added to the final report to enhance the ability of the agency to communicate existing pavement conditions, forecasted conditions, and M&R needs and priorities.

Functional Class Review

IMS reviews the functional classification and characteristics of the agency's roadway network to make any necessary adjustments to highway, road, and street classifications. An accurate description of the character of service each provide is an important component of transportation planning.



Software Needs Assessment, Training, and Technical Support

IMS can perform a software needs assessment, pavement management systems implementation, and software training as a value-added service. We review the existing agency IT structure, programs goals, and user skillsets to make a recommendation on what pavement management software will best meet the need. Ongoing technical support is another popular value-added service available regardless of software.

Pricing

Indian Wells Country Club Community, CA - Base Scope of Services

2024 IMS Pavement Management Program

Task	Activity	Quant	Units	Unit Rate	Total
	Project Initiation				
1	Project Initiation & Set-up	1	LS	$2,500.00	$2,500.00
2	Network Referencing & GIS Linkage	1	LS	$1,200.00	$1,200.00
3	Network Inventory Checks & Survey Map Development	1	LS	$1,050.00	$1,050.00
	a. GIS Clean-up Services	6	HR	$175.00	$1,050.00
	Field Surveys				
4	LCMS-2 RST Mobilization/Calibration	1	LS	$2,925.00	$2,925.00
5	LCMS-2 RST Field Data Collection **(2-pass Maj. Art./Coll.; 1-pass Min. Art./Coll. + Locals)**	1	DA	$4,250.00	$4,250.00
6	Annual Fee: Downward Images in Inform Continuous Intervals **(Web Based; No Crack Display)**			**Included in Base Activities (Yr. 1)**	
	a. Data Fee for Hosting			**Included in Base Activities (Yr. 1)**	
	Data Management				
7	Data QA/QC, Processing, & Formatting	1	LS	$1,850.00	$1,850.00
8	Right of Way Assets **(GPS & Camera Config.: Select Once w/Any Asset Below)**	8	T-Mi	$10.00	$80.00
9	e. Curb & Gutter Database Development	8	T-Mi	$25.00	$200.00
10	Easy Street Analysis of Pavement & 5-Year Budget Development	1	LS	$3,500.00	$3,500.00
	a. "ESA - Easy Street Analysis" Pavement Management Spreadsheet Software			**Included in Base Activities**	
	b. Customizable Prioritization & Cost-Benefit Analysis			**Included in Base Activities**	
	c. Unlimited Access - Training Library			**Included in Base Activities**	
	d. Online ESA Spreadsheet Training via Teams			**Included in Base Activities**	
11	Standard IMS Draft Written Report	1	LS	$1,200.00	$1,200.00
	a. Standard IMS Final Written Report	1	LS	$450.00	$450.00
12	Project Management	1	LS	$1,620.00	$1,620.00
				Project Total:	**$21,875.00**

Exclusion

1. **RFP Scope of Work #3 has been excluded from our fees. For an additional charge, IMS can bring on a subconsultant to provide the requested safety improvement services.**

Assumptions

2. Test miles are calculated based on the number of centerline miles and whether they require one- or two-pass collection. Community survey miles of approximately 8 miles was assumed from aerials and the map provided by the Community.
    a. Prior to the kickoff meeting, the Community will provide IMS with a) primary POC, secondary POC and other stakeholder contact information; and b) preliminary centerline GIS (i.e., geodatabase).
3. Data collection relies heavily on up to date and topologically sound GIS centerline information.
4. Pavement data collection is dependent on the Community's approval of the GIS maps representing the street inventory to be surveyed.
5. Pavement data collection is weather dependent and assumes one mobilization to the area. Data cannot be collected if the pavement is wet or if the temperatures are below 32° or above 95° F.
6. The Community will actively participate in submission review and provide comments within the period of time agreed to during kickoff. Our proposed schedule assumes a two-week review period for draft deliverables.

Optional Value-add Services Pricing

Indian Wells Country Club Community, CA: Optional Services

2024 Pavement Management Plan, 2026-31

	Value-Added Service Activities:				
13	FastFWD Mobilization/Calibration	1	LS	$3,000.00	$3,000.00
	a. Deflection Testing: 2-pass Major Arterials & Collectors only **(18 T-Mi.)**	1	DA	$3,750.00	$3,750.00
	b. Data Analysis of Deflection Testing	1	LS	$1,250.00	$1,250.00
	c. Traffic Control/Deflection Testing **(City to provide; IMS Est. 32 Hrs.)**	0	HR	$108.00	$0.00
14	Annual Fee: Downward Images in Inform Continuous Intervals Year 2+	1	LS/YR	$2,000.00	$2,000.00
	a. Data Fee for Hosting **(Web Based; No Crack Display)** Year 2+	8	T-Mi/YR	$2.00	$16.00
8	Right of Way Assets **(GPS & Camera Config.: Select Once w/Any Asset(s) Below)**			**Included in Base Activities**	
	a. Sign & Support Database Development	8	T-Mi	$75.00	$600.00
	b. Pavement Markings & Striping Database Development	8	T-Mi	$50.00	$400.00
	c. Sidewalk Database Development	8	T-Mi	$22.00	$176.00
	d. ADA Ramp & Compliance Survey	8	T-Mi	$30.00	$240.00
	e. Curb & Gutter Database Development			**Included in Base Activities**	
	f. Traffic Signals/ Flashers. Controllers Database Development	8	T-Mi	$25.00	$200.00
	g. Street Lights Database Development	8	T-Mi	$45.00	$360.00
	h. Drop Inlets Database Development	8	T-Mi	$22.00	$176.00
	i. Drivepads Database Development	8	T-Mi	$22.00	$176.00
	j. Bridges Database Development	8	T-Mi	$25.00	$200.00
	k. Street Furniture Database Development	8	T-Mi	$25.00	$200.00
	l. Cattle Guards Database Development	8	T-Mi	$22.00	$176.00
	m. Speed Humps Database Development	8	T-Mi	$25.00	$200.00
	n. Guardrails & Roadside Pedestrian Fence Database Development	8	T-Mi	$22.00	$176.00
	o. Catch Basins/ Drainage Inlets Database Development	8	T-Mi	$22.00	$176.00
	p. Culverts & Ditches Database Development	8	T-Mi	$22.00	$176.00
	q. Cabinets Database Development	8	T-Mi	$22.00	$176.00
	r. Utility Poles Database Development	8	T-Mi	$45.00	$360.00
	s. Fire Hydrants Database Development	8	T-Mi	$22.00	$176.00
	t. Medians Database Development	8	T-Mi	$22.00	$176.00
	u. Valves Database Development	8	T-Mi	$32.00	$256.00
	v. Manhole Covers Database Development	8	T-Mi	$25.00	$200.00
	w. Trees Database Development	8	T-Mi	$55.00	$440.00
15	IMS Web-Story Map of City's Sidewalk & Ramp Condition **(for External Portal)**	1	EA	$7,500.00	$7,500.00
	a. Years 2 & 3 Annual Updates of Rehabs; Update	3	EA	$2,000.00	$6,000.00
16	IMS Web-Dashboard of City's Sidewalk & Ramp Condition **(for Internal Staff)**	1	EA	$5,500.00	$5,500.00
	a. Years 2 & 3 Annual Updates of Rehabs; Update	3	EA	$2,000.00	$6,000.00
17	City Council Presentation - Virtual	1	EA	$3,500.00	$3,500.00
	a. Add for an Onsite City Council Presentation	1	EA	$2,000.00	$2,000.00
18	Non-Standard Written Report **(Min. 8-Hours; beyond at Hourly Rate)**	8	HR	$150.00	$1,200.00
19	Additional or Specialty Maps for Reporting **(Beyond Typical 2 Sets)**	1	EA	$175.00	$175.00
20	Additional Hard Copies of the Final Report **(>3 Sets Included)**	1	EA	$200.00	$200.00
21	Functional Class Review	16	HR	$175.00	$2,800.00
22	Sidewalk-Surface Tester (SST) Mob., Survey & Analysis: **Sidewalks**			**(Available Upon Request)**	
23	Lidar-Mounted Unit Mob., Survey & ADA Compliance Data: **ADA Curb Ramps**			**(Available Upon Request)**	
24	Software Evaluation Needs Assessment	1	LS	$1,750.00	$1,750.00
25	Convert Street Layer Polylines to Polygons	8	T-Mi	$20.00	$160.00
26	Convert Street Layer Polygons to Polylines	8	T-Mi	$6.00	$48.00

Project Schedule

IMS Proposed Schedule for Indian Well Country Club, CA: 4-Month Duration			
Assumes an NTP is issued, preliminary **work commences March 5th**, 2024			
Task	**Description**	**Duration Estimate**	**Milestone Completion**
1	Council Approval, Executed Agreement & NTP to be Issued	2 weeks	March 2024
2	GIS Acquisition/Development and Validation	2 weeks	March 2024
3	Review Map Iterations and Approval	2 weeks	March 2024
4	Kick-off Meeting (Virtual)	1 day	March 2024
5	**RST** LCMS-2 Pavement Network Survey	1 day	Early-April 2023
6	QC/QA Program for Collected Data	4 weeks	April-May 2024
7	Deliver Network Condition Data/Analysis software set-up	1 week	Early-June 2024
8	Easy Street Analysis (ESA) Spreadsheet	4 weeks	June 2024
9	Right-of-Way (ROW) Assets: Curb & Gutter	2.5 months from survey	June 2024
10	Final Report, Council Presentations	4 weeks	June 2024
Opt.	*Other ROW Assets, Story Map, etc.*	*2 weeks*	*July 2024*

Assumptions:

1. Proposal Acceptance by March 5th.

Standard Terms and Conditions **of Sale – Services & Software**

Updated January 21, 2024

1. DEFINITIONS
   a. In these Terms and Conditions of Sale, "Seller" means International Cybernetics Company, LP and IMS Infrastructure Management Services and, if related to service work within the country of Canada, International Cybernetics Canada, Inc.; and
   b. "Buyer" means the person, firm, organization, or corporation by whom the purchase order is given.
   c. "Software" means software sold by Seller.
   d. "Services" means data collection, processing, analysis, consulting, training, and similar activities performed by Seller for the Buyer.

2. THE CONTRACT
   a. All purchase orders must be received in writing and are accepted subject to these Terms and Conditions of Sale. No terms or conditions put forward by Buyer and no representations, warranties, guarantees or other statements not contained in Seller's quotation or Acknowledgement of Order nor otherwise expressly agreed in writing by Seller shall be binding on Seller.
   b. The Contract shall become effective only upon the date of acceptance of Buyer's order. Such acceptance will be by a mutually executed contract, task order, notice to proceed, and all necessary Buyer-provided deliverables to allow the Seller to perform on contract, such as road network definition (GIS), analysis parameters, etc., or upon the date of fulfilment of all conditions stipulated in the Contract (the "Effective Date").
   c. No alteration or variation to the Contract shall apply unless agreed in writing by both parties. However, Seller reserves the right to effect minor modifications and/or improvements to the final deliverables of services before delivery provided that the performance of the services is not adversely affected.
   d. The Buyer, having taken full note of the characteristics of the services and software sold by Seller, particularly on the basis of the indications provided in documentation, catalogues and, where applicable, during presentations given by Seller, has satisfied itself as to the suitability of the services and software for its own needs. Where it has not contacted Seller for any additional details prior to the acceptance of the order, the Buyer acknowledges that it has been adequately informed.

3. VALIDITY OF QUOTATION AND PRICES
   a. Unless previously withdrawn, Seller's quotation is open for acceptance within the period stated therein or, when no period is so stated, within sixty (60) days after its date.
   b. For Software and Services, Prices are firm for delivery within the period stated in Seller's quotation and are exclusive of (i) Sales Tax and (ii) any similar and other taxes, duties, levies or other like charges arising outside the State of Florida in connection with the performance of the Contract.

4. PAYMENT
   a. Payment shall be made according to the Seller's standard payment terms, unless defined otherwise in the Contract. The "Effective Date" shall in no case be earlier than the date on which the first payment is received by Seller. Software will be invoiced at anytime after its readiness for producing to Buyer has been communicated to Buyer. Standard payment terms for Services are monthly progress payments based on services rendered during the month at the unit prices defined in the Contract. Invoices for Services will be dated on or before the last day of each month.
   b. Payment shall be made: (i) in full without set-off, counterclaim or withholding of any kind (save where and to the extent that this cannot by law be excluded); and (ii) in the currency of Seller's order confirmation within thirty days of date of invoice unless otherwise specified by Seller's Finance Department.
   c. Without prejudice to Seller's other rights, Seller reserves the right to: (i) charge interest on any overdue sums at 1% per month during the period of delay; (ii) suspend performance of the Contract (including withholding shipment) in the event that Buyer fails or in Seller's reasonable opinion it appears that Buyer is likely to fail to make payment when due under the Contract or any other contract; and (iii) at any time require such reasonable security for payment as Seller may deem reasonable.
   d. Software delivered or sold by Seller shall remain its property until full payment of the related price. Where payment is not made, Seller will be entitled to exercise its right to claim the return of the property that remains unpaid. These provisions do not create any obstacle including any losses to which they may give rise.

5. DELIVERY PERIOD
   a. Unless otherwise stated in Seller's order confirmation, all periods stated for delivery or completion are measured from the Effective Date and are to be treated as estimates only, not involving any contractual obligations or liability.
   b. Delivery of Services within the estimated timeframe depends upon the Seller's existing project commitments, fleet schedule, resource availability, access to the roads to be collected, and good weather (dry roads, temperatures above freezing). Any delays due to these variables may affect the delivery/completion period but shall not affect the Contract Price.
   c. Assumes assets to be collected are in the public right-of-way and unobscured from the line-of-sight of the data collection vehicle's cameras (ex: no significant vegetation or overgrowth, damaged, or vehicle obstruction). On two-lane roads, the 360-degree camera will capture assets in the direction of travel, and the 360-degree camera will capture the assets in the opposite direction. Therefore, only one pass will be required on these streets. Streets with more than two lanes may require additional passes depending on the number of lanes or division of lanes by median island.
   d. If Seller is delayed in or prevented from performing any of its obligations under the Contract due to the acts or omissions of Buyer or its agents (including but not limited to failure to provide specifications, working drawings, road network definition (GIS), analysis parameters, and/or such other information as Seller reasonably requires to proceed expeditiously with its obligations under the Contract), the delivery/completion period and the Contract Price shall both be adjusted accordingly.
   e. If delivery of Services is delayed due to any act or omission of Buyer, having been notified that Seller is awaiting the completion of Buyer's obligations, Seller shall be entitled to place the project on hold and cease further work on the project until such time that the obligations are met. Upon placing the project on hold, the Seller shall be entitled to invoice Buyer for all work completed to date including for partially-completed data collection, processing, or analysis and for undelivered data.
   f. To ensure timely project execution and success, both Buyer and Seller understand that all questions and information requests related to this project from the Buyer to the Seller are to be responded to within three (3) business days and the acceptance and/or feedback of any deliverables provided to Buyer from Seller is to occur within ten (10) business days.

6. FORCE MAJEURE
   a. Force Majeure of any kind, unforeseeable production, traffic or shipping disturbances, war, acts of terrorism, fire, floods, unforeseeable shortages of labor, utilities or raw materials and supplies, strikes, lockouts, pandemics, acts of government, restrictions on travel, and any other hindrances beyond the control of the party obliged to perform which diminish, delay or prevent production, shipment, acceptance or use of the performed services, software or provided data, or make it an unreasonable

proposition, shall relieve the party from its obligation to supply or take delivery, as the case may be, as long as and to the extent that the hindrance prevails.

b. If, as a results of the hindrance, planned in-person or on-site visits by Seller staff for installation, implementation, training, or meetings are prevented or become impractical, Seller shall be relieved from such contract requirements. Seller shall also provide any implementation or training services, and attend meetings, virtually or online to the maximum extent possible to satisfy the intent of the contract.

7. SOFTWARE

a. Any published computer program, regardless of its form and the way in which it is provided to the Buyer, is protected by intellectual property rights owned by Seller. The Buyer benefits from a personal, non-exclusive, non-transferable usage and/or consultation right for its own needs, in accordance with the terms set out in the corresponding license. The usage right is conditional on the compliance with the terms appearing on the Buyer End User Licence Agreement (EULA). It is the responsibility of the Buyer to make itself fully aware of its rights and obligations referred to in the EULA and to comply with them. In the event of the blockage or disabling of the software as a result of user non-compliance with the rights acquired, Seller will send to the Buyer, on request by the latter, a commercial proposal to enable it to regularise its licensing rights, either by acquiring rights for additional users or for the number of simultaneous connections required for the usage of the software. The database and software licenses from third-party publishers, such as Microsoft, Pavemetrics, FLIR, or others, supplied where applicable by Seller to the Buyer under the terms of the order concerned, must only be used by the Buyer strictly within the framework of the utilization of the Seller software packages and the license contracts from the respective publishers of the software concerned (see in particular www.microsoft.com for SQL Server, etc.). The use of these databases and/or technologies is intended for the exclusive use of the associated Seller software applications.

b. The Buyer shall be solely responsible for the implementation of any necessary procedures and measures intended to protect and to back-up its data and to prevent any virus or IT intrusions. It will be responsible for using appropriate media and back-up tools, or regularly checking them and carrying out frequent back-up operations appropriate to its activities. Prior to any software updates or technical intervention by Seller, the Buyer undertakes to carry out a back-up of all its data and databases.

c. Any software will be put into service by Seller as part of a service provided for in the Buyer's order. The installation of the software can only be carried out if the IT equipment, operating systems, and network supplied by the Buyer (i) possess characteristics in conformity with the recommendations issued by Seller; (ii) configured in accordance with the standards published by Seller; (iii) operate normally at the time of the installation and are free of any viruses or pirated software. The Buyer shall have sole responsibility for any partial or total damage or loss of information, and for the costs incurred by the repairs in the event of a breakdown or other incident. Any intervention made impossible once the Seller is in the Buyer's premises, as a result of the non-compliance of one or more of these items with the characteristics referred to above, shall nevertheless be invoiced at the quoted prices and due to be paid in full by the Buyer. Additional visits or interventions required will incur additional fees.

d. In the event that the Buyer wants a Seller software package to load data from another application or database (a third-party program or data source, etc.), Seller will proceed with the transfer of the data based on a prior order from the Buyer for the corresponding service. The responsibility of Seller shall be limited to the receipt of the Buyer's data, as Seller cannot be responsible for verifying the accuracy, quality, or fitness for purpose of the data or for guaranteeing that the data can be imported correctly or completely. The Buyer, having sole knowledge of its data, shall be obliged to verify, after completion of the data migration into the Seller packages, that it conforms to its expectations; it shall have a maximum deadline of 15 days following their receipt, to notify Seller in writing of any errors or omissions noted during its verification. The processing of any requests for modifications by the Buyer notified to Seller beyond this deadline will only be able to be carried out under the terms of a new order from the Client.

e. In order to benefit from upgrades and enhancements to the software that may be made by Seller, the Buyer must pay annual license fees for the software (maintenance contract). In this regard, there will be no obligation on Seller to adapt its software in such a way as to allow the utilisation by the Buyer of systems, equipment or consumables supplied by a third party and/or non-compliance with Buyer's specifications. The provision of the updated versions of the software packages in application of the contract subscribed by the Buyer shall be carried out online. It is the responsibility of the Buyer to take note of the rights and obligations referred to in the contract corresponding to the service(s) subscribed for and to comply therewith.

f. The Client shall benefit from technical support for the software packages via the paid annual license fees. Training, consulting, and assistance in the appropriate utilization of the software shall be paid separately by means of an appropriate order for Services. It is the responsibility of the Client to take note of the rights and obligations referred to in the maintenance and service contracts and to comply therewith.

g. Except in cases where Seller is expressly subject to an obligation to perform, in view of standard practices within its profession, Seller, which undertakes to take all possible care with the execution of its obligations, is subject to an obligation of resources. The software acquired from Seller will be used solely under the direction, control and responsibility of the Buyer. Seller cannot be held liable for the consequences of abnormal utilization, inadequate setup or misconfiguration, poor performance on Buyer-supplied software, or any delay that is not the responsibility of Seller. The Buyer is informed that Seller shall not be liable for the quality, availability, and reliability of telecommunications networks, regardless of their nature, in the event of the transport of data or access to the internet. Each party shall only be liable to the other for direct losses that it has suffered as a result of any contractual failing by the other in meeting its obligations arising from the order issued. Neither party shall be obliged to compensate the other for any indirect losses, including in particular loss of income, loss of sales revenues or opportunity costs, whether the latter were foreseeable or not. In any event, the total liability of the Seller shall be limited to the value of the applicable Software and Services paid for on the date of any action seeking its liability.

8. WARRANTY

a. Seller warrants to Buyer that it will perform the services in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. Seller makes no other warranties or guarantees, expressed or implied, relating to Seller's services or software provided by Itself or others, and consultant disclaims any implied warranties or warranties Imposed by law, including warranties of merchantability and fitness for a particular purpose.

9. NON-SOLICITATION

a. During execution of this contract and for a period of two (2) years following the Delivery Date, the Buyer will not, directly or indirectly, whether through an owner, partner, shareholder, consultant, agent, employee, co-venturer or otherwise, or through any other "person" (which, for purposes of this subsection, shall mean an individual, a corporation, a partnership, an association, a joint-stock company, a trust, any unincorporated organization, or a government or political subdivision thereof), hire or

attempt to hire any active employee or contractor of the Seller or any affiliate of the Seller, assist in such hiring by any other person, or encourage any such employee to terminate his relationship with the Seller or any affiliate of the Seller.

10. LIMITATION OF LIABILITY
    a. Supplier's maximum aggregate liability for any and all losses, liabilities, expenses (including legal expenses), damages, claims or actions incurred under or in connection with a specific order or a particular blanket order issued, arising in or by virtue of breach of contract, tort (including negligence), misrepresentation, breach of statutory duty, strict liability, infringement of intellectual property rights or otherwise, shall in no circumstances exceed a sum equal to the total price of the order in question.

11. STATUTORY AND OTHER REGULATIONS
    a. If Seller's obligations under the Contract shall be increased or reduced by reason of the making or amendment after the date of Seller's quotation of any law or any order, regulation or bylaw having the force of law that shall affect the performance of Seller's obligations under the Contract, the Contract Price and delivery period shall be adjusted accordingly and/or performance of the Contract suspended or terminated, as appropriate.

12. COMPLIANCE WITH LAWS
    a. Buyer agrees that all applicable import, export control and sanctions laws, regulations, orders and requirements, as they may be amended from time to time, including without limitation those of the United States, Canada, the European Union and the jurisdictions in which Seller and Buyer are established or from which items may be supplied, and the requirements of any licenses, authorizations, general licenses or license exceptions relating thereto will apply to its receipt and use of services or software provided.
    b. Buyer agrees furthermore that it shall not engage in any activity that would expose the Seller to a risk of penalties under laws and regulations of any relevant jurisdiction prohibiting improper payments, including but not limited to bribes, to officials of any government or of any agency, instrumentality or political subdivision thereof, to political parties or political party officials or candidates for public office, or to any employee of any customer or supplier. Buyer agrees to comply with all appropriate legal, ethical and compliance requirements.

13. DEFAULT, INSOLVENCY AND CANCELLATION
    a. Seller shall be entitled, without prejudice to any other rights it may have, to cancel the Contract forthwith, wholly or partly, by notice in writing to Buyer, if (i) Buyer is in default of any of its obligations under the Contract and fails, within 30 (thirty) days of the date of Seller's notification in writing of the existence of the default, either to rectify such default if it is reasonably capable of being rectified within such period or, if the default is not reasonably capable of being rectified within such period, to take action to remedy the default or (ii) on the occurrence of an Insolvency Event in relation to Buyer. In the event of cancellation, Buyer shall be responsible for all payments to the Seller for any deliveries completed and milestones met up to the date of termination.
    b. Buyer shall be entitled, without prejudice to any other rights it may have, to cancel the Contract forthwith, wholly or partly, by notice in writing to Seller, if (i) Seller is in default of any of its obligations under the Contract and fails, within 30 (thirty) days of the date of Buyer's notification in writing of the existence of the default, either to rectify such default if it is reasonably capable of being rectified within such period or, if the default is not reasonably capable of being rectified within such period, to take action to remedy the default or (ii) on the occurrence of an Insolvency Event in relation to Seller. In the event of cancellation, Buyer shall be responsible for all payments to the Seller for any deliveries completed and milestones met up to the date of termination.
    c. "Insolvency Event" in relation to Buyer means any of the following: (i) a meeting of creditors of Buyer being held or an arrangement or composition with or for the benefit of its creditors being proposed by or in relation to Buyer; (ii) a chargeholder, receiver, administrative receiver or similar person taking possession of or being appointed over or any distress, execution or other process being levied or enforced (and not being discharged within seven days) on the whole or a material part of the assets of Buyer; (iii) Buyer ceasing to carry on business or being unable to pay its debts; (iv) Buyer or its directors or the holder of a qualifying floating charge giving notice of their intention to appoint, or making an application to the court for the appointment of , an administrator; (v) a petition being presented (and not being discharged within 28 days) or a resolution being passed or an order being made for the administration or the winding-up, bankruptcy or dissolution of Buyer; or (vi) the happening in relation to Buyer of an event analogous to any of the above in any jurisdiction in which it is incorporated or resident or in which it carries on business or has assets. Seller shall be entitled to recover from Buyer or Buyer's representative all costs and damages incurred by Seller as a result of such cancellation, including a reasonable allowance for overheads and profit (including but not limited to loss of prospective profits and overheads).

14. DATA RETENTION
    a. This section defines the Seller's data retention policy for Services projects. The data collected by the IrisPRO Pave takes up over 6 GB per mile (Raw) and 3 GB per mile (Processed). Data storage costs are significant for this volume of data. Therefore, Seller has implemented a data retention policy to clarify its standard operating procedure.
    b. Definitions
       "Raw data" - Sensor data collected by the collection vehicle that is saved in proprietary formats and cannot be used directly. This includes .drive files, PGR files, and FIS files.
       "Processed data" - Data that has been transformed into usable formats by the Connect software. This includes CSV, XLSX, SHP, GDB, and JPG files.
       "Data Acceptance" – Buyer acceptance of delivered data and confirmation that deliverables meet the project requirements.
    c. Policy
       Seller will provide a quotation for hosting of any collected data for any duration upon request.
       Seller will retain Raw data for 3 months beyond Data Acceptance, unless the client confirms in writing that Seller should store the data longer and confirms that client will pay for the additional hosting costs. Beyond this time, Seller may delete the Raw data without further notice. After the Raw data has been deleted, reprocessing of the sensor data will not be possible. For example, crack detection cannot be run with different settings, and new image views cannot be extracted from the Ladybug camera.
       Seller will retain Processed data for 15 months beyond Data Acceptance, unless the client confirms in writing that Seller should store the data longer and confirms that client will pay for the additional hosting costs. This timeframe allows Seller to perform year-to-year analysis and comparisons provided that the same roads are collected annually. Beyond this time, Seller may delete the Processed data without further notice. After the Processed data has been deleted, year-to-year analysis and comparisons will be limited to data review only.

15. MISCELLANEOUS
    a. No waiver by either party with respect to any breach or default or of any right or remedy and no course of dealing, shall be deemed to constitute a continuing waiver of any other breach or default or of any other right or remedy, unless such waiver be expressed in writing and signed by the party to be bound.
    b. If any clause, sub-clause or other provision of the Contract is invalid under any statute or rule of law, such provision, to that extent only, shall be

deemed to be omitted without affecting the validity of the remainder of the Contract.

c. Buyer shall not be entitled to assign its rights or obligations hereunder without the prior written consent of Seller.
d. Seller enters into the Contract as principal. Buyer agrees to look only to Seller for due performance of the Contract.
e. The Contract shall in all respects be construed in accordance with the laws of the local jurisdiction in which the services are provided and the Buyer is physically based. All disputes arising out of the Contract shall be subject to the exclusive jurisdiction of the courts of the local jurisdiction/state as defined above.
f. The headings to the Clauses and paragraphs of the Contract are for guidance only and shall not affect the interpretation thereof.
g. All notices and claims in connection with the Contract must be delivered in writing.
h. Unless mentioned to the contrary in writing, the Buyer authorizes Seller to cite its name in its business references, websites, and social media.