

AGREEMENT FOR CONTINUING GENERAL AVIATION ENGINEERING SERVICES

THIS AGREEMENT FOR CONTINUING GENERAL AVIATION ENGINEERING SERVICES ("Agreement") is entered into by and between the CITY OF OCALA, a Florida municipal corporation ("City"), and INFRASTRUCTURE CONSULTING & ENGINEERING, PLLC, a Professional Limited Liability Company duly organized in the state of South Carolina and authorized to do business in the state of Florida (EIN# 45-3175330) ("Infrastructure Consulting") or ("Consultant").

RECITALS:

WHEREAS, on February 17, 2022, City issued a Request for Proposals ("RFP") from qualified engineering firms for the provision of continuing general aviation engineering services, RFP No.: ELE/220118 (the "Solicitation"); and

WHEREAS, eight (8) firms responded to the Solicitation and, after consideration of the evaluation factors set forth in the Solicitation, McFarland Johnson and Infrastructure Consulting & Engineering, PLLC, were found to be the highest ranked proposals and selected as finalists in the solicitation process; and

WHEREAS, Infrastructure Consulting & Engineering, PLLC, was selected as the awardee to provide continuing general aviation engineering services (the "Services"); and

NOW THEREFORE, in consideration of the foregoing recitals, the following mutual covenants and conditions, and other good and valuable consideration, City and Consultant agree as follows:

TERMS OF AGREEMENT:

1. **RECITALS.** City and Consultant hereby represent, warrant, and agree that the Recitals set forth above are true and correct and are incorporated herein by reference.
2. **CONTRACT DOCUMENTS.** The Contract Documents which comprise the entire understanding between City and Consultant shall only include: (a) this Agreement; (b) those documents listed in this section as Exhibits to this Agreement; (c) the City's Solicitation for the Project and the proposal submitted by Consultant in response to same (the "Solicitation Documents"); and (d) those documents identified in the Project Specifications section of this Agreement, if any. Each of these documents are incorporated herein by reference for all purposes.

If there is a conflict between the terms of this Agreement and the Contract Documents, then the terms of this Agreement shall control, amend, and supersede any conflicting terms contained in the remaining Contract Documents.

A. **Exhibits to Agreement.** The Exhibits to this Agreement are as follows:

Exhibit A: Scope of Work (A-1 through A-5)

Exhibit B: Submitted Proposal (B-1 through B-107)

Exhibit C: Loaded Hourly Rates (C-1 through C-5)

If there is a conflict between the individual Exhibits regarding the scope of work to be performed, then any identified inconsistency shall be resolved by giving precedence in the following order: (1) Exhibit A; then (2) Exhibit B; then (3) Exhibit C.

3. **SCOPE OF SERVICES/TASKS.** Consultant shall provide full-service aviation planning and design services, construction management services and inspection of airport development projects more specifically described in **Exhibit A – Scope of Work** and the Contract Documents on an as needed basis and shall include, but be not limited to, those services authorized by individual Task Work Orders for individual related projects (the "Projects"). City and Consultant acknowledge that the Scope of Work may not delineate every detail and minor work task required to be performed by Consultant to complete the individual Projects. If during the course of performance of the services included in this Agreement Consultant determines that work should be performed to complete the Project which is in the Consultant's opinion outside of the level of effort originally anticipated, Consultant shall notify the City Project Manager and obtain written approval by the City Project Manager in a timely manner before proceeding with the work. If Consultant proceeds with said work without notifying the City Project Manager and obtaining written approval, said work shall be deemed to have been performed within the original level of effort. Notice to the City Project Manager does not constitute authorization or approval by City to perform the work. Performance of work by Consultant outside of the originally anticipated level of effort without prior written approval of City is done at Consultant's sole risk.

A. **Task Work Orders.** Task Work Orders shall be jointly prepared by City and Consultant and shall define the detailed scope of services to be provided for the particular Project. Each Task Work Order shall be separately numbered and approved in accordance with this Agreement and the City's Procurement Policy. The Scope of Work and Task Work Orders issued under this Agreement may only be adjusted by written amendment executed by both parties.

4. **COMPENSATION.** City shall pay Consultant for professional engineering services for amounts approved on negotiated Task Work Orders in accordance with the Fee Schedule set forth in **Exhibit C – Loaded Hourly Rates**. Subcontractor fees will be

negotiated at the time a Task Work Order is initiated for a project using current published rates. The City reserves the right not to use any subcontractor on a project. Payments will be made based on a percentage of project completion by task. Completed tasks must be approved and agreed upon by the designated City of Ocala Project Manager before payment will be made. The final reports and deliverables must be approved and agreed upon by the designated City of Ocala Project Manager before final payment will be made.

- A. **Prompt Payment.** Monthly actual payment reporting requirements for prime contractors and consultants are based on prompt payment rules and laws. The same holds true for return of retainage after the subcontractor has completed its work, not when the overall project is finished. Florida law requires timely payment for both construction and non-construction services. Generally, invoices for construction contracts must be paid within **TWENTY-FIVE (25) DAYS** of receipt. Invoices for consultant contracts are payable per the terms of this Agreement, but shall not exceed federal regulations as set forth in **49 CFR 26.29** requiring payment of all subcontractors for satisfactory performance within **THIRTY (30) DAYS** of payment to the Prime.
- B. **Invoice Submission.** Consultant shall invoice City for all work completed. Invoices must be reviewed and agreed upon by the City of Ocala Project Manager. Review and approval shall not be unreasonably withheld, conditioned, or delayed. All invoices, reports, and other documentation submitted by Consultant shall include the City Contract Number, date, and an assigned Invoice Number. Invoices, reports, and other documentation shall be submitted to the City Project Manager at: **Ocala International Airport; Attn: Matt Grow, 1770 SW 60th Avenue, Suite 600, Ocala, Florida 34474; E-Mail: mgrow@ocalafl.org.**
5. **TERM.** The term of this Agreement shall commence on **JULY 20, 2022** and shall end on **JULY 19, 2025**. This Agreement may be renewed for no more than three (3), one-year (1-year) renewal terms upon the mutual written consent of both parties, unless terminated by either party pursuant to the terms of this Agreement.
6. **FORCE MAJEURE.** Neither party shall be liable for delay, damage, or failure in the performance of any obligation under this Agreement if such delay, damage, or failure is due to causes beyond its reasonable control, including without limitation: fire, flood, strikes and labor disputes, acts of war, acts of nature, terrorism, civil unrest, acts or delays in acting of the government of the United States or the several states, judicial orders, decrees or restrictions, or any other like reason which is beyond the control of

the respective party ("Force Majeure"). The party affected by any event of force majeure shall use reasonable efforts to remedy, remove, or mitigate such event and the effects thereof with all reasonable dispatch.

- A. The party affected by force majeure shall provide the other party with full particulars thereof including, but not limited to, the nature, details, and expected duration thereof, as soon as it becomes aware.
 - B. When force majeure circumstances arise, the parties shall negotiate in good faith any modifications of the terms of this Agreement that may be necessary or appropriate in order to arrive at an equitable solution. Consultant performance shall be extended for a number of days equal to the duration of the force majeure. Consultant shall be entitled to an extension of time only and, in no event, shall Consultant be entitled to any increased costs, additional compensation, or damages of any type resulting from such force majeure delays
7. **TERMINATION.** This Agreement may be terminated by either party for cause upon City or Consultant providing written notice to the defaulting party not less than **THIRTY (30) DAYS** prior to the date of termination in the manner specified for the giving of Notices herein. Any such termination shall not affect the rights or obligations accruing to either party under any previously issued and approved Task Work Order.
- A. **City's Remedies Upon Consultant Default.** In the event of Consultant default under this Agreement City shall have the right, at City's option, to pursue any and all remedies available at law or equity, including, without limitation, the right to: (1) terminate this Agreement without further notice; (2) hire another consultant to complete the required work in accordance with the needs of City; (3) recover from Consultant all damages, costs, and attorneys' fees arising from Consultant's default prior to termination; and (4) recover from Consultant any actual excess costs by: (i) deduction from any unpaid balances owed to Consultant; or (ii) any other remedy as provided by law.
8. **STANDARD OF CARE.** Consultant represents and warrants that it has the personnel and experience necessary to perform the Services in a professional and workmanlike manner. Consultant shall render Services consistent with the same degree of care, skill, and diligence exercised by professionals of like experience, knowledge, and resources under similar circumstances at the locale of the Project. Consultant shall re-perform services which fail to satisfy the foregoing standard of care or otherwise fail to meet the requirements of this Agreement at no additional cost to City. Consultant's standard

of care shall not be altered by the application, interpretation, or construction of any other provision of the Agreement.

9. **PERFORMANCE EVALUATION.** At the end of the contract, City may evaluate Consultant's performance. Any such evaluation will become public record.
10. **CONTRACT FULFILLMENT.** Consultants who enter into any agreement with the City of Ocala and fail to complete the contract term, for any reason, may be subject to future bidding suspension for one (1) year, and up to a possible three (3) year bid debarment for serious contract failures.
11. **COMMERCIAL AUTO LIABILITY INSURANCE.** Consultant shall procure and maintain, for the life of this Agreement, commercial auto liability insurance covering all automobiles owned, non-owned, hired, and scheduled by Consultant with a combined limit of not less than One Million Dollars (\$1,000,000) for bodily injury and property damage for each accident. Consultant's commercial automobile liability insurance policy must name, as additional insureds, the City of Ocala, a political subdivision of the State of Florida, and its officials, employees, and volunteers.
12. **COMMERCIAL GENERAL LIABILITY INSURANCE.** Consultant shall procure and maintain, for the life of this Agreement, commercial general liability insurance with combined single limits of not less than One Million Dollars (\$1,000,000) per occurrence. The only aggregate limit acceptable is "project aggregate" and the Certificate must show an appropriate endorsement (ISO CG2501 or equal).
 - A. If the Commercial General Liability form is used:
 - (1) Coverage A- shall include premises, operations, products and completed operations, independent contractors, contractual liability covering this contract and broad form property damage coverage.
 - (2) Coverage B - shall include personal injury.
 - (3) Coverage C - medical payments, is not required
 - B. If the Comprehensive General Liability form is used, it shall include at least:
 - (1) Bodily Injury and Property Damage liability for premises, operations, products and completed operations, independent contractors, and property damage resulting from explosion, collapse or underground (XCU) exposures.
13. **WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY COVERAGE.** Consultant shall procure and maintain, for the life of this Agreement, Workers' Compensation insurance for in amounts required by Florida law and employer's liability insurance with limits of at least \$1,000,000 each accident and \$1,000,000 policy limit for disease, and shall be responsible for ensuring that any subcontractor has statutory coverage. City

need not be named as an Additional Insured, but a subrogation waiver endorsement is required.

14. PROFESSIONAL LIABILITY INSURANCE/ERRORS AND OMISSIONS COVERAGE.

Consultant shall procure and maintain professional liability insurance with an occurrence limit of not less than \$1,000,000, exclusive of defense costs. Consultant shall be required to provide continuing professional liability insurance to cover each project for a period of **FIVE (5) YEARS** after project completion. It is recognized that this type of insurance is only available on a claims-made basis and Additional Insured endorsements are not available.

15. MISCELLANEOUS INSURANCE PROVISIONS.

- A. Insurance Requirements. These insurance requirements shall not relieve or limit the liability of Consultant. City does not in any way represent that these types or amounts of insurance are sufficient or adequate to protect Consultant's interests or liabilities but are merely minimums. No insurance is provided by the City under this contract to cover Consultant. **No work shall be commenced under this contract until the required Certificate(s) of Insurance have been provided.** Work shall not continue after expiration (or cancellation) of the Certificates of Insurance and shall not resume until new Certificate(s) of Insurance have been provided. Insurance written on a "Claims Made" form is not acceptable without consultation with City of Ocala Risk Management.
- B. Deductibles. Consultant is responsible for paying any and all deductibles or self-insured retention. Any deductibles or self-insured retentions above \$100,000 must be declared to and approved by the City. Approval will not be unreasonably withheld.
- C. Certificates of Insurance. Consultant shall provide Certificates of Insurance, accompanied by copies of all endorsements required by this section, that are issued by an agency authorized to do business in the State of Florida and with an A.M. Best rating* of at least an A, showing the "City of Ocala, 110 SE Watula Avenue, Ocala, FL 34471" as an additional insured and certificate holder for General Liability and Commercial Automobile Liability insurance. Original and renewal certificates must be forwarded to the **City of Ocala Contracting Department, Third Floor, 110 SE Watula Avenue, Ocala, FL 34471, E-Mail: vendors@ocalafl.org** prior to the policy expiration.
- D. Failure to Maintain Coverage. In the event Consultant fails to disclose each applicable deductible/self-insured retention or obtain or maintain in full force and

effect any insurance coverage required to be obtained by Consultant under this Agreement, Consultant shall be considered to be in default of this Agreement.

- E. Severability of Interests. Consultant shall arrange for its liability insurance to include, or be endorsed to include, a severability of interests/cross-liability provision so that the "City of Ocala" (where named as an additional insured) will be treated as if a separate policy were in existence, but without increasing the policy limits.

16. **PUBLIC RECORDS.** The Consultant shall comply with all applicable provisions of the Florida Public Records Act, Chapter 119, Florida Statutes. Specifically, the Consultant shall:

- A. Keep and maintain public records required by the public agency to perform the service.
- B. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
- C. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the Consultant does not transfer the records to the public agency.
- D. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the Consultant or keep and maintain public records required by the public agency to perform the service. If the Consultant transfers all public records to the public agency upon completion of the contract, the Consultant shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Consultant keeps and maintains public records upon completion of the contract, the Consultant shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC

RECORDS AT: CITY OF OCALA, OFFICE OF THE CITY CLERK; 352-629-8266; E-mail: clerk@ocalafl.org; City Hall, 110 SE Watula Avenue, Ocala, FL 34471.

16. **AUDIT.** Consultant agrees to maintain such financial and other records as may be prescribed by the City or by applicable federal and state laws, rules, and regulations. Consultant shall comply and cooperate immediately with any inspections, reviews, investigations, or audits relating to this Agreement as deemed necessary by the Florida Office of the Inspector General, the City's Internal or External auditors or by any other Florida official with proper authority.
17. **PUBLICITY.** Consultant shall not use City's name, logo, seal or other likeness in any press release, marketing materials, or other public announcement without City's prior written approval.
18. **PUBLIC ENTITY CRIMES.** As provided in Section 287.133(2)(a), Florida Statutes, a person or affiliate who has been placed on the convicted vendor list following a conviction for public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases or real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or Consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO, for a period of 36 months from the date of being placed on the convicted vendor list.
19. **DISADVANTAGED BUSINESS ENTERPRISE (DBE):** The City of Ocala adopts FDOT's goal of 10.65% as a race-neutral DBE goal. This means the City's goal is to spend at least 10.65% of expenditures with certified DBE's as prime firms, or as subcontractors/subconsultants. Race-neutrality means the City hopes the overall goal can be achieved through the normal competitive procurement process without using DBE required goals. FDOT funded projects have an overall DBE goal of 10.65%. For projects specifically for the Ocala International Airport, the DBE goal is 12%. Although not a requirement, the City believes this DBE percentage can realistically be achieved on projects through use of DBE prime and DBE subcontractors performing services anticipated on projects. Prime contractors or consultants may be requested to submit a DBE Utilization form indicating their firm's proposed use of DBE subcontractors. Prime construction contractors for FDOT-funded projects are required to visit

<http://www.fdot.gov/equalopportunity/eoc.shtm> to register and submit their DBE commitments online.

20. **DRUG FREE WORKPLACE REQUIREMENT.** Consultant submitted a drug free workplace certification with their proposal, and agrees to provide a drug free workplace.

A. The Consultant, if other than an individual, shall-within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration:

- (1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Consultant's workplace and specifying the actions that will be taken against employees for violations of such prohibition;
- (2) Establish an ongoing drug-free awareness program to inform such employees about:
 - (i) The dangers of drug abuse in the workplace;
 - (ii) The Consultant's policy of maintaining a drug-free workplace;
 - (iii) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (3) Provide all employees engaged in performance of the contract with a copy of the statement required by paragraph (b)(1) of this clause;
- (4) Notify such employees in writing in the statement required by paragraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will:
 - (i) Abide by the terms of the statement; and
 - (ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction;
- (5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

(6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:

- (i) Taking appropriate personnel action against such employee, up to and including termination; or
- (ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and

(7) Make a good faith effort to maintain a drug-free workplace through implementation of paragraphs (b)(1) through (b)(6) of this clause.

B. Consultant, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.

C. In addition to other remedies available to the Government, the Consultant's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR [23.506](#), render the Consultant subject to suspension of contract payments, termination of the contract or default, and suspension or debarment.

21. **E-VERIFY.** Pursuant to section 448.095, Consultant shall register with and use the U.S. Department of Homeland Security's ("DHS") E-Verify System, accessible at <https://e-verify.uscis.gov/emp>, to verify the work authorization status of all newly hired employees. Consultant shall obtain affidavits from any and all subcontractors in accordance with paragraph 2(b) of section 448.095, Florida Statutes, and maintain copies of such affidavits for the duration of this Agreement. By entering into this Agreement, Consultant certifies and ensures that it utilizes and will continue to utilize the DHS E-Verify System for the duration of this Agreement and any subsequent renewals of same. Consultant understands that failure to comply with the requirements of this section shall result in the termination of this Agreement and Consultant may lose the ability to be awarded a public contract for a minimum of one (1) year after the date on which the Agreement was terminated. Consultant shall provide a copy of its DHS Memorandum of Understanding upon City's request. Please visit www.e-verify.gov for more information regarding the E-Verify System

22. **INDEPENDENT CONTRACTOR STATUS.** City expressly acknowledges Consultant is an independent contractor, and nothing in this Agreement is intended nor shall be construed to create an agency relationship, an employer/employee relationship, a joint

venture relationship, or any other relationship allowing the City to exercise control or discretion over the manner or method by which Consultant performs hereunder.

23. **WAIVER.** The failure or delay of any party at any time to require performance by another party of any provision of this Agreement, even if known, shall not affect the right of such party to require performance of that provision or to exercise any right, power or remedy hereunder. Any waiver by any party of any breach of any provision of this Agreement should not be construed as a waiver of any continuing or succeeding breach of such provision, a waiver of the provision itself, or a waiver of any right, power or remedy under this Agreement. No notice to or demand on any party in any circumstance shall, of itself, entitle such party to any other or further notice or demand in similar or other circumstances.
24. **SEVERABILITY OF ILLEGAL PROVISIONS.** Wherever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under the applicable law. Should any portion of this Agreement be declared invalid for any reason, such declaration shall have no effect upon the remaining portions of this Agreement.
25. **INDEMNITY.** Consultant shall indemnify City and its elected officials, employees and volunteers against, and hold City and its elected officials, employees and volunteers harmless from, all damages, claims, losses, costs, and expenses, including reasonable attorneys' fees, which City or its elected officials, employees or volunteers may sustain, or which may be asserted against City or its elected officials, employees or volunteers, arising out of the activities contemplated by this Agreement including, without limitation, harm or personal injury to third persons during the term of this Agreement to the extent attributable to the actions of Consultant, its agents, and employees.
26. **NO WAIVER OF SOVEREIGN IMMUNITY.** Nothing herein is intended to waive sovereign immunity by the City to which sovereign immunity may be applicable, or of any rights or limits of liability existing under Florida Statute § 768.28. This term shall survive the termination of all performance or obligations under this Agreement and shall be fully binding until any proceeding brought under this Agreement is barred by any applicable statute of limitations.
27. **NOTICES.** All notices, certifications or communications required by this Agreement shall be given in writing and shall be deemed delivered when personally served, or when received if by facsimile transmission with a confirming copy mailed by registered or certified mail, postage prepaid, return receipt requested. Notices can be concurrently delivered by e-mail. All notices shall be addressed to the respective parties as follows:

If to Consultant: Infrastructure Consulting & Engineering, PLLC
Attn: Doug Hambrecht, Vice President
5550 W Idlewild Ave. Suite 115
Tampa, Florida 33634
Phone: 813-330-2701
Email: doug.hambrecht@ice-eng.com

If to City of Ocala: Daphne M. Robinson Esq., Contracting Officer
110 SE Watula Avenue, 3rd Floor
Ocala, Florida 34471
Phone: 352-629-8343
Fax: 352-690-2025
Email: notices@ocalafl.org

Copy to: Robert W. Batsel, Jr.
Gooding & Batsel, PLLC
1531 S.E. 36th Ave.
Ocala, Florida 34471
Phone: 352-579-6536
Email: rbatsel@lawyersocala.com

28. **ATTORNEYS FEES.** If any civil action, arbitration or other legal proceeding is brought for the enforcement of this Agreement, or because of an alleged dispute, breach, default or misrepresentation in connection with any provision of this Agreement, the successful or prevailing party shall be entitled to recover reasonable attorneys' fees, sales and use taxes, court costs and all expenses even if not taxable as court costs (including, without limitation, all such fees, taxes, costs and expenses incident to arbitration, appellate, bankruptcy and post-judgment proceedings), incurred in that civil action, arbitration or legal proceeding, in addition to any other relief to which such party or parties may be entitled. Attorneys' fees shall include, without limitation, paralegal fees, investigative fees, administrative costs, sales and use taxes and all other charges billed by the attorney to the prevailing party.

29. **JURY WAIVER.** IN ANY CIVIL ACTION, COUNTERCLAIM, OR PROCEEDING, WHETHER AT LAW OR IN EQUITY, WHICH ARISES OUT OF, CONCERNS, OR RELATES TO THIS AGREEMENT, ANY AND ALL TRANSACTIONS CONTEMPLATED HEREUNDER, THE PERFORMANCE HEREOF, OR THE

RELATIONSHIP CREATED HEREBY, WHETHER SOUNDING IN CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE, TRIAL SHALL BE TO A COURT OF COMPETENT JURISDICTION AND NOT TO A JURY. EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY. NEITHER PARTY HAS MADE OR RELIED UPON ANY ORAL REPRESENTATIONS TO OR BY ANY OTHER PARTY REGARDING THE ENFORCEABILITY OF THIS PROVISION. EACH PARTY HAS READ AND UNDERSTANDS THE EFFECT OF THIS JURY WAIVER PROVISION.

30. **GOVERNING LAW.** This Agreement is and shall be deemed to be a contract entered and made pursuant to the laws of the State of Florida and shall in all respects be governed, construed, applied and enforced in accordance with the laws of the State of Florida.
31. **JURISDICTION AND VENUE.** The parties acknowledge that a majority of the negotiations, anticipated performance and execution of this Agreement occurred or shall occur in Marion County, Florida. Any civil action or legal proceeding arising out of or relating to this Agreement shall be brought only in the courts of record of the State of Florida in Marion County or the United States District Court, Middle District of Florida, Ocala Division. Each party consents to the exclusive jurisdiction of such court in any such civil action or legal proceeding and waives any objection to the laying of venue of any such civil action or legal proceeding in such court and/or the right to bring an action or proceeding in any other court. Service of any court paper may be effected on such party by mail, as provided in this Agreement, or in such other manner as may be provided under applicable laws, rules of procedures or local rules.
32. **REFERENCE TO PARTIES.** Each reference herein to the parties shall be deemed to include their successors, assigns, heirs, administrators, and legal representatives, all whom shall be bound by the provisions hereof.
33. **GOVERNING LAW.** This Agreement is and shall be deemed to be a contract entered into and made pursuant to the laws of the State of Florida and shall in all respects be governed, construed, applied and enforced in accordance with the laws of the State of Florida.
34. **SECTION HEADINGS.** The section headings herein are included for convenience only and shall not be deemed to be a part of this Agreement.
35. **RIGHTS OF THIRD PARTIES.** Nothing in this Agreement, whether express or implied, is intended to confer any rights or remedies under or by reason of this Agreement on

any persons other than the parties hereto and their respective legal representatives, successors and permitted assigns. Nothing in this Agreement is intended to relieve or discharge the obligation or liability of any third persons to any party to this Agreement, nor shall any provision give any third persons any right of subrogation or action over or against any party to this Agreement.

36. **AMENDMENT.** No amendment to this Agreement shall be effective except those agreed to in writing and signed by both of the parties to this Agreement.
37. **COUNTERPARTS.** This Agreement may be executed in counterparts, each of which shall be an original and all of which shall constitute the same instrument.
38. **ELECTRONIC SIGNATURE(S).** Consultant, if and by offering an electronic signature in any form whatsoever, will accept and agree to be bound by said electronic signature to all terms and conditions of this agreement. Further, a duplicate or copy of the agreement that contains a duplicated or non-original signature will be treated the same as an original, signed copy of this original agreement for all purposes.
39. **ENTIRE AGREEMENT.** This Agreement, including exhibits, (if any) constitutes the entire Agreement between the parties hereto with respect to the subject matter hereof. There are no other representations, warranties, promises, agreements or understandings, oral, written or implied, among the Parties, except to the extent reference is made thereto in this Agreement. No course of prior dealings between the parties and no usage of trade shall be relevant or admissible to supplement, explain, or vary any of the terms of this agreement. Acceptance of, or acquiescence in, a course of performance rendered under this or any prior agreement shall not be relevant or admissible to determine the meaning of this Agreement even though the accepting or acquiescing party has knowledge of the nature of the performance and opportunity to make objection. No representations, understandings, or agreements have been made or relied upon in the making of this Agreement other than those specifically set forth herein.
40. **LEGAL AUTHORITY.** Each person signing this Agreement on behalf of either party individually warrants that he or she has full legal power to execute this Agreement on behalf of the party for whom he or she is signing, and to bind and obligate such party with respect to all provisions contained in this Agreement.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK. SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the parties have executed this Agreement on 09 / 09 / 2022.

ATTEST

CITY OF OCALA

Angel B. Jacobs

Angel B. Jacobs
City Clerk

Ire Bethea Sr.

Ire Bethea, Sr.
City Council President

Approved as to form and legality

INFRASTRUCTURE CONSULTING &
ENGINEERING, PLLC

Robert W. Batsel, Jr.

Robert W. Batsel, Jr.
City Attorney

DOUGLAS HAMBRECHT

Infrastructure Consulting & Engineering, PLLC

(Printed Name)

Vice President

(Title)

BACKGROUND

The engineering firm will provide continuing professional services for the Ocala International Airport.

It is anticipated that the projects will be funded by Federal grants from the Federal Aviation Administration (FAA) under its Airport Improvement Program, State grants from the Florida Department of Transportation (FDOT) and/or by City (non-grant) funds. This will require the Consultant to provide input and guidance to the Airport about said programs and to ensure the Airport's compliance with all applicable standards, advisory circulars and regulations of the FAA, State of Florida, City of Ocala and Marion County.

All work awarded under this contract will be for projects in which the estimated construction cost of each individual project does not exceed \$4 million, and professional services for each individual project does not exceed \$500,000 or the maximum sum allowable by law under Florida's Consultants' Competitive Negotiation Act, Section 287.055, Florida Statutes, as amended, whichever is greater, and agreed upon by the parties. All work will be performed in accordance with industry standards and comply with applicable laws, and regulations.

City reserves the right to modify this scope during negotiations for budgetary reasons.

Prices shall remain firm for the term of the awarded contract.

Surcharges will not be accepted in conjunction with this award, and such charges should be incorporated into the pricing structure.

DETAILED SCOPE OF WORK

In accordance with FAA Advisory Circular (AC) 150/5100-14E, Architectural, Engineering and Planning Consultant Services for Airport Grant Projects, the scope of work for this solicitation is being divided into three categories. The first category involves planning services. The second category involves professional services for the design/bidding of airport development projects and the third category involves professional services for the construction administration/inspection of airport development projects. Work orders will be assigned on an as- needed basis.

Category A – Aviation Planning Services

This category includes studies under the headings of airport system and master planning, airport noise compatibility planning and environmental assessments and related studies. These studies include, but are not limited to, the following activities:

1. Design study to establish the framework and detailed work program.
2. Airport data collection and facility inventories.
3. Aeronautical activity forecasts and demand/capacity analyses.
4. Facility requirements determination.
5. Airfield modeling for capacity and delay.
6. Airport layout and terminal area plan development.
7. Airport noise studies under 14 CFR Parts 150 and 161.
8. Compatible land-use planning in the vicinity of airports.
9. On-airport site selection studies.
10. Airport project development schedules and cost estimates.
11. Airport financial planning and benefit cost analysis.
12. Participation in public information and community involvement programs and/or public hearings relating to airport development and planning projects.
13. Environmental Assessments (EA), Environmental Impact Statements (EIS), and other studies in accordance with FAA Orders 5050.4 and 1050.1.
14. Preparation of or updating of the airport layout plan.
15. Airspace analysis.
16. GIS data collection, entry, and analysis and other electronic graphical/mapping efforts.
17. Project feasibility studies

Category B – Architectural/Engineering Design Services for Airport Development Projects

This category includes the basic A/E services normally required for airport development projects. It involves services generally of an architectural, civil, geotechnical, structural, mechanical, and electrical engineering nature, which include, but are not limited to:

Preliminary Phase

This phase involves those activities required for defining the scope of a project and establishing preliminary requirements. Some examples of activities within this phase of a project include, but are not limited to:

1. Coordinating with the City on project scope requirements, finances, schedules, operational safety and phasing considerations, site access and other pertinent matters.
2. As applicable, coordinating project with local FAA personnel and other interested stakeholders to identify potential impacts to their operations.
3. Planning, procuring, and/or preparing necessary surveys, geotechnical engineering investigations, field investigations, and architectural and engineering studies required for design considerations.
4. Developing design schematics, sketches, environmental and aesthetic considerations, project recommendations, and preliminary layouts and cost estimates.
5. Preparing project design criteria and other bridging documents commonly used for alternative project delivery methods such as design-build contracting.

Design Phase

This phase includes all activities required to undertake and accomplish a full and complete project design. Examples include, but are not limited to, those below:

1. Conducting and attending meetings and design conferences to obtain information and to coordinate or resolve design matters.
2. Collecting engineering data and undertaking field investigations; performing geotechnical engineering studies; and performing architectural, engineering, and special environmental studies.
3. Preparing necessary engineering reports and recommendations.
4. Preparing detailed plans, specifications, cost estimates, and design/construction schedules.
5. Preparing Construction Safety and Phasing Plan (CSPP).
6. Printing and providing necessary copies of engineering drawings and contract specifications.

Bidding and Negotiation Phase

The firm shall be required to provide complete services as outlined in the contract or assist the Airport Authority, at a minimum, with the following tasks.

1. Provide final calculations, construction documents and specifications in consultation with the Owner.

2. Prepare and file all applications, data, and documents required to obtain approval of all authorities having jurisdiction over the project.
3. Prepare the necessary bidding technical specifications and bid schedule(s).
4. Prepare a written cost estimate, engineering, and functionality recommendations.
5. Additional services as may be necessary and appropriate.

Other Design Services

The development of some projects may involve activities or studies outside the scope of the basic design services routinely performed by the consultant. These special services may vary greatly in scope, complexity, and timing and may involve several different disciplines and fields of expertise. Examples of special services that might be employed for airport projects include, but are not limited to, the following:

1. Soil investigations, including core sampling, laboratory tests, related analyses, and reports.
2. Detailed mill, shop, and/or laboratory inspections of materials and equipment.
3. Land surveys and topographic maps.
4. Field and/or construction surveys.
5. Photogrammetry surveys.
6. Special environmental studies and analyses.
7. Public information and community involvement surveys, studies, and activities.
8. Assisting the City in the preparation of necessary applications for local, State, and Federal grants.
9. Preparation of property maps.
10. Preparation of quality control plan.
11. Other design services as needed.

Category C – Architectural/Engineering Construction Engineering Inspection Services for Airport Development Projects

This category includes the basic construction engineering inspection services normally required for airport development projects. It may include all basic services

rendered after the award of a construction contract, including, but not limited to, the following activities:

1. Providing consultation and advice to the City during all phases of construction.
2. Representing the City at preconstruction conferences.
3. Inspecting work in progress periodically and providing appropriate reports to the City.
4. Reviewing and approving shop and erection drawings submitted by contractors for compliance with design concept/drawings.
5. Reviewing, analyzing, and accepting laboratory and mill test reports of materials and equipment.
6. Assisting in the negotiation of change orders and supplemental agreements.
7. Observing or reviewing performance tests required by specifications.
8. Determining amounts owed to contractors and assisting City in the preparation of payment requests for amounts reimbursable from grant projects.
9. Making final inspections and submitting punch-lists and a report of the completed project to the City.
10. Reviewing operations and maintenance manuals.
11. Making final inspections and submitting punch-lists and a report of the completed project to the City.
12. Providing record drawings.
13. Preparing summary of material testing report
14. Preparing summary of project change orders
15. Preparing grant amendment request and associated justification, if applicable.
16. Preparing final project reports including financial summary.
17. Obtaining release of liens from all contractors.



STATEMENT OF QUALIFICATIONS

**PROFESSIONAL ENGINEERING AND
PLANNING SERVICES**

AT OCALA INTERNATIONAL AIRPORT



City of Ocala – Ocala International Airport
750 SW 60th Avenue
Ocala, FL 34474

March 15, 2022

Ms. Tiffany Kimball | Procurement and Contracting
City of Ocala – Ocala International Airport
750 SW 60th Avenue, Ocala, FL 34474

March 15, 2022

**RE: Request for Professional Engineering and Planning Services at Ocala International Airport
LOI# AIR/220118**

Dear Ms. Kimball and Members of the Selection Committee:

For half a decade, **Infrastructure Consulting & Engineering, PLLC (ICE)** has been fortunate to have served the City of Ocala as one of the Ocala International Airport's (OCF's) continuing general aviation consultants. We have partnered with the Airport to help them plan and develop exciting new developments from the Taxiway "A" Reconstruction to the Secondary Parallel Taxiway to 18-36 and Westside Cargo. **We are excited at the opportunity to once again partner with you to continue providing professional engineering and planning services.** By re-selecting the ICE Team, the Airport will have a staff of aviation experts whom you know and trust, are readily available, and eager to continue working in the coming years to successfully deliver the next phase of this Contract. Having closely worked alongside you on the past and ongoing projects, we bring a vested interest and an intimate understanding of the goals and needs at OCF. Our Team's established working relationship with the City's management, who will be involved in the forthcoming airport projects, will allow us to streamline delivery and maintain efficiency.

ICE has been serving as an airport airfield design consultant for the City since 2017. As such, there will no be learning curve should we be once again selected. We know the City's requirements, personnel, and applicable codes/processes. The following aspects highlight the additional key differentiators we can offer to the City.

STRONG RELATIONSHIP WITH THE CITY | The City of Ocala is one of the most important clients served by our Florida aviation team. We are committed to continuing to provide the personal attention and responsiveness you deserve and would expect from a small firm while receiving the benefit of a large firm's technical expertise and qualifications. **Doug Hambrecht, PE, will continue to serve as Project Manager, Lead Engineer, and the primary point of contact.** He is well-known to OCF staff having served as the Project Manager on the previous Contract and even several years with a previous firm. Doug has worked for years with Ms. Kimball as well as Matt Grow, Mike Bauer, Paul Constable, and other staff members from Procurement and has strong ties to the Engineering and Public Works Departments.

PROJECT MANAGER'S RELATIONSHIP WITH AIRPORT STAFF | Doug has a unique understanding of the City having designed several projects for the Airport and working closely with City staff. Doug has more than 27 years of experience providing consulting services for clients at both commercial service and general aviation airports with extensive experience including all aspects of aviation planning, design, and construction consulting services as well as an in-depth knowledge of FAA funding process. He is uniquely qualified to assist OCF with their day-to-day and long-term needs and is ready to continue the partnership.

**ICE'S
PROJECT
EXPERIENCE**

Executed
TWOs to Date

8

**Key
Projects**

Apron Rehab.
Inspection

Perimeter Fence

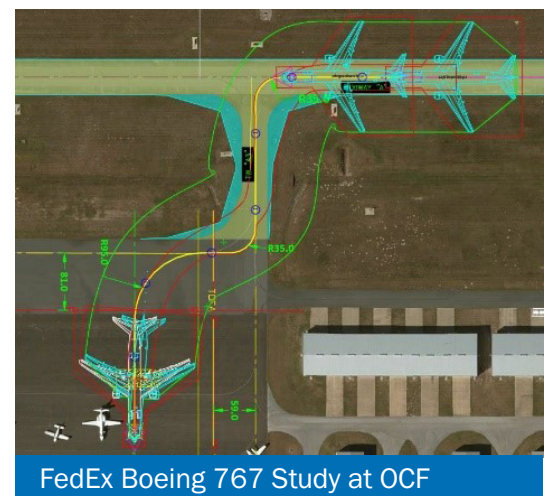
Runway 18-36 Seal
Coat and Marking

Taxiway "A" Rehab.

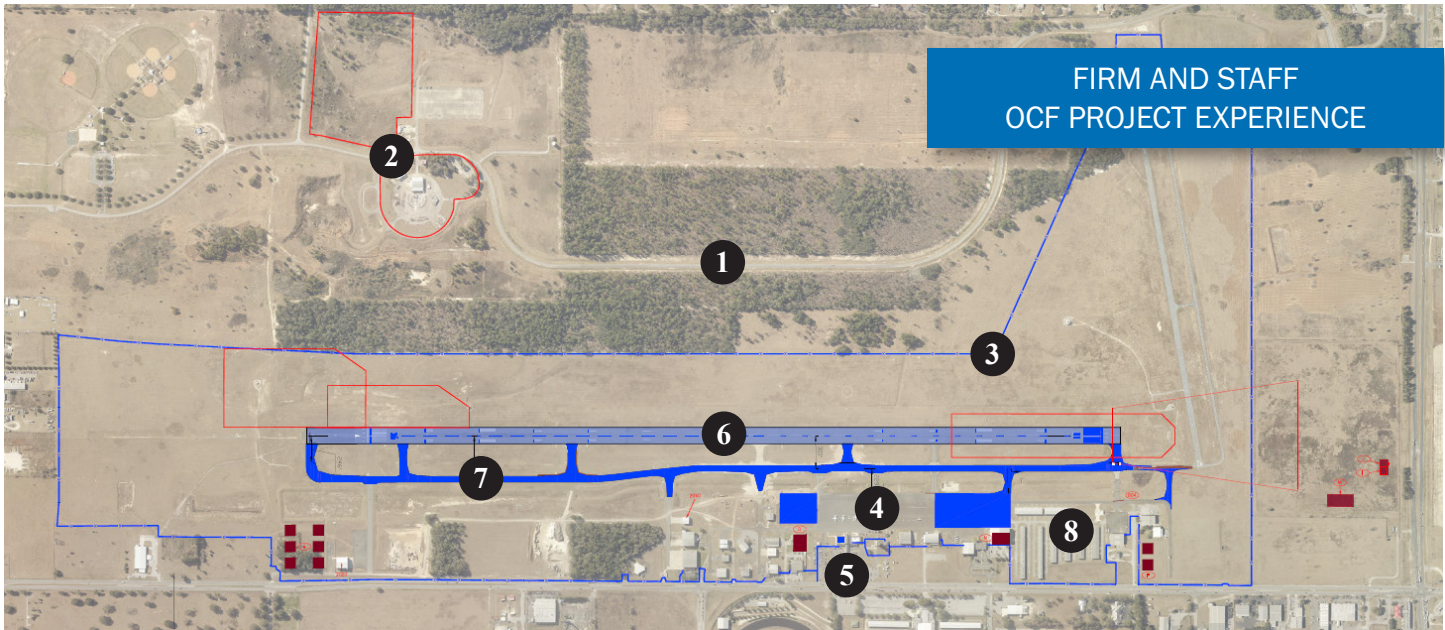
Terminal Restaurant

Grant Funding
Assistance

\$6.1 M



FedEx Boeing 767 Study at OCF



ICE's OCF Project Experience as the Prime Consultant

- ① Airfield Design Consultant (2017 – Present)
- ② Airport Layout Plan (ALP) Update
- ③ Airfield Perimeter Fence
- ④ Construction Inspection for Aircraft Apron Rehabilitation and Expansion

- ⑤ Restaurant Design and Construction Oversight
- ⑥ Runway 18-36 Crack Repair, Seal, and Restripe
- ⑦ Taxiway "A" Rehabilitation

ICE Staff's OCF Project Experience Under Prior Employment

- ⑧ General Aviation Terminal

KNOWLEDGEABLE AND CENTRALLY LOCATED TEAM | To augment our in-house capabilities, ICE is proud to be supported by specialized experts who have experience working at OCF. **R.M. Barrineau & Associates, Inc.** (survey) is an Ocala-based firm. Other team members, who are located in the central Florida area, include **AVCON, Inc.** (planning, design support, and airfield electrical), **Blue Wing Environmental, LLC (DBE/WBE)** (environmental), and **Cal-Tech Testing, Inc. (DBE)** (pre-design geotechnical investigations and construction materials testing). Through the depth and locations of our Team, we are able to respond quickly and efficiently with the right resources.

As the firm's designee who will contract with the City, this SOQ is our commitment to enter into a binding agreement and continue to provide professional engineering and planning services at OCF. We very much desire to continue providing these aviation services and are fully prepared to proceed with the work immediately. On behalf of ICE, I pledge that the City and Airport will receive the highest level of service from our Team. Thank you for the opportunity and your consideration. We hope you find the information in this proposal helpful in your evaluation.

Respectfully Submitted,
Infrastructure Consulting & Engineering, PLLC

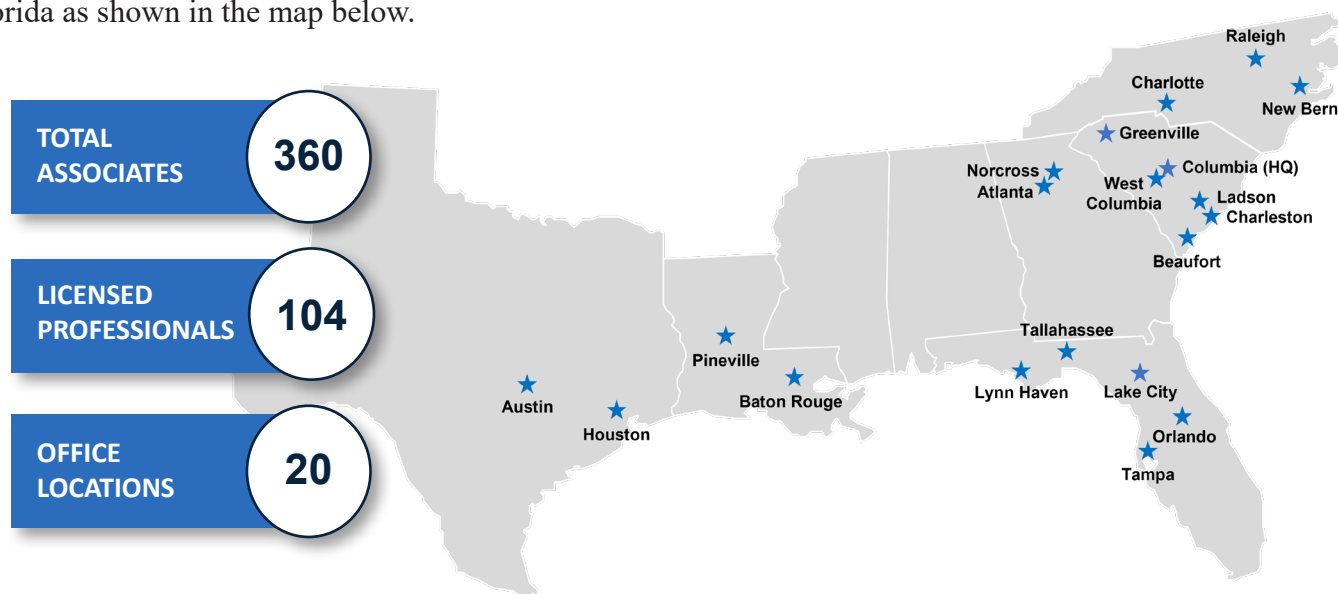


Mitchell Metts

Mitchell Metts, PE | Vice President
mitchell.metts@ice-eng.com | 803-206-8455 (cell)

FIRM SUMMARY

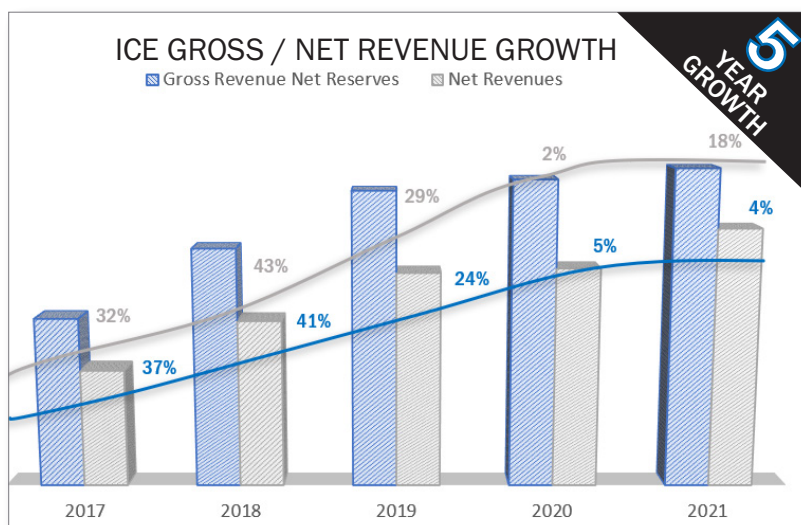
Infrastructure Consulting & Engineering, PLLC (ICE) is a full-service transportation consulting and design firm that has provided professional consulting services to local government clients since our inception in 2005. ICE is a registered professional limited liability company that offers a broad range of professional aviation engineering, planning, and architectural services to general aviation and commercial service airport clients throughout the Southeast. **Our firm's aviation experts have completed numerous projects varying in size, scope, and complexity, including several at Ocala International Airport which are highlighted throughout this submittal. These specialists will continue to provide timely, sound, and cost-effective solutions for all of your aviation design, planning, architectural, and construction challenges.** Our long-standing and strong relationships with the Federal Aviation Administration (FAA) and the Florida Department of Transportation (FDOT) will continue to prove invaluable in providing input and guidance to the Airport for obtaining federal and state funding. ICE currently has 360 professionals, including 104 licensed professionals, providing innovative professional engineering services throughout the United States from our 20 locations, including 5 offices in Florida as shown in the map below.



FINANCIAL CAPACITY

Our executive leadership has demonstrated a responsible approach to financial matters which has provided ICE rapid growth in revenues and total employees since the Firm's establishment. This financial stability allows the ICE Team to successfully provide services at the level required by the City of Ocala. The graphic to the right includes the Firm's increase in gross and net revenue from 2017-2021.

ICE is listed with Dun and Bradstreet, DUNS number 058232290, and the FEID number is 45-3175330. ICE's current FDOT prequalification letter with approved overhead can be found in the Appendix on page 22.



ABILITY

MANAGEMENT | Effective management and serving the City for this Contract will be rooted in past experience on similar, successful airfield projects and a responsiveness pledge to continue to serve as an extension of your Staff. The plan begins with the assembling of the Project Team. Elham Farzam, PE, the Principal-in-Charge, has assigned the **project management responsibilities to Doug Hambrecht, PE, based on his previous airfield experience, his proximity to Ocala (Tampa), his knowledge of the Ocala International Airport (OCF), and his dedication and reputation for providing exceptional client service and a quality product.**

Doug and Elham have assembled a team that knows the FAA design criteria, specializes in aviation, is familiar with OCF, and is available to dedicate adequate resources to this Contract. The organization chart included on page 6 is a graphic representation of the ICE Team.



All Team members and disciplines will report up to the Project Manager. Assistance and support will be provided by the Principal-in-Charge, Elham Farzam, PE, and the various discipline leads. Doug will be directly involved in all projects, from working daily with designers to quality control submittal reviews of the plans and specifications. Weekly coordination with the Project Team, including subconsultants, will be performed. At key phases, daily coordination is necessary. **Doug will coordinate directly with the Airport Director, Matt Grow, as a single point of contact.** Matt has known Doug for many years and knows that he can be counted on to provide a high-quality product throughout the duration of this Contract. In addition to other key staff, Doug is located in ICE's full-production office in Tampa, Florida. With additional firm-wide expertise available at all times, project personnel are prepared to handle a wide range of assignments currently anticipated under the "Airport Airfield Design Consultant" program as well as any unforeseen needs during the Contract's duration. As the Project Manager, Doug will do whatever it takes to satisfy the City.

The City requires a highly technical Project Manager who can draw on solid experience to understand the components of any project, and who will be committed through availability to implement the Airport's goals. Doug has experience and ability that aligns well with the planned projects at the Airport including runway, apron, taxiway design, perimeter wildlife fencing, hangars, and vertical construction. Other projects such as fuel farms, navigational aids, airfield electrical, cargo operations, roadway design, General Aviation terminal construction, and drainage design illustrate his long history of aviation engineering and his ability to handle all project types. Doug's primary responsibility in management, in order to ensure a successful program at completion, can be broken down as listed to the right.

FUNCTIONAL DUTIES OF ICE'S PROJECT MANAGER

The SCHEDULE is well known and followed by the entire team;
COMPLETE PROJECT UNDERSTANDING and will be present at all client, subconsultant, and design Team meetings;
 Ensure TIMELY AND EFFECTIVE COMMUNICATIONS are used reporting up to the City (and down to the design team);
 All necessary PERMITS are applied for and obtained;
 The Project is designed within the set BUDGET;
QUALITY CONTROL is maintained and thoroughly enforced;
 and the design is complete and ACCURATE so change orders during construction are minimal.

Doug is very involved with the daily operations and events within a project, maintaining control at all times. He stays involved during construction to make sure the Contract and specifications are adhered to and potential problems are identified early. He is in charge of project files that are meticulously maintained and contain all pertinent information about a project, including contracts, invoices, correspondence, budgets, grant applications, reports, meeting minutes and future action items.

Overall, our ability to administer and serve the City hinges on effective and frequent communication, not only between the consultant and the City, but also with funding agencies, the design team, subconsultants, permitting agencies, contractors, and other stakeholders. This requires leadership, experience, and consistent availability. Frequent communication is key to successful project outcomes and long-term relationships. The Project Manager and the Team will make it a practice to incorporate the basics combined with Team availability and responsiveness.

	CONTRACTOR SUBMITTALS Processed Within 7 days
	OWNER DESIGN COMMENTS Completed Within 72 Hours
	EMAILS Reply Same Day
	IN PERSON MEETING REQUESTS Meet within 48 hours
	PHONE CALLS Returned Within 4 Hours

PROJECT MANAGER'S CURRENT AND PAST FLORIDA AIRPORT CLIENTS

- | | |
|---|---|
| <ul style="list-style-type: none"> ● Ocala International Airport ● Albert Whitted Airport ● Brooksville-Tampa Bay Regional Airport ● Cecil Airport ● Daytona Beach International Airport ● Destin-Fort Walton Beach Airport ● Jacksonville International Airport ● Kissimmee Gateway Regional Airport ● Marco Island Executive Airport | <ul style="list-style-type: none"> ● Palm Beach International Airport ● Pensacola International Airport ● Punta Gorda Airport ● Sarasota Bradenton International Airport ● Sebastian Municipal Airport ● St. Pete-Clearwater International Airport ● Tallahassee International Airport ● Valkearia Airport ● Zephyrhills Municipal Airport |
|---|---|

TEAM COLLABORATION | ICE's technical staff fully supports the Project Manager and the Airport's daily and long term needs. **ICE is one of a select group of firms with in-house planning and architectural expertise, which has proven itself in serving OCF over the last five years.** ICE has assisted the Airport staff with day to day development opportunities in the planning realm in developing concepts and evaluating potential airport geometry with growth. This requires our management, engineering, environmental, and architectural team to closely work together to evaluate the opportunities as they present themselves.

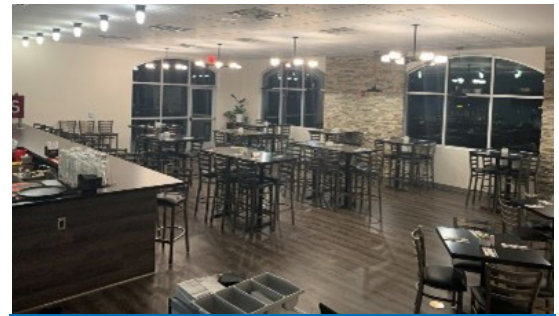
Growth for the Airport is coming and with that, a firm with the right team of in-house expertise and specialty subconsultants is required. ICE has proven our team can efficiently work together and act as an efficient, collaborative team. Key ICE staff have been together for 10 and upwards of 20 years. Many of our current employees have reunited together at ICE from previous firms, including our Project Manager/Lead Engineer, Lead Architect, Lead Planner, and much of the production staff. Furthermore, the addition of AVCON for airfield electrical and navigational aids, in addition to planning and design engineering support, has guaranteed the right skillset is always available. **ICE and AVCON have a long history of working together, including on the past COF Contract.**

The resumes provided in the Appendix starting on page 3 illustrate the multitude of projects the ICE team has worked on together at OCF, for different airports in Florida, and throughout the Southeast. The Team has local project experience that indicates the knowledge of local construction and regulations. This is most evident with the

design of the terminal building and the re-construction of Taxiway "A". Karina Lanier is our Florida aviation architecture lead who was a valuable contributor to the terminal design team. It was this experience that allowed her to assist with design permitting and build-out of the terminal restaurant. Elevation 89 is a hugely successful venture!

The Taxiway "A" construction led by the ICE team involved our Management (Doug), construction Inspection (Jeff Long), and our engineering and design staff for the various late stage design changes made to the plans. Unfortunately, the contractor went out of business and ICE and the City are still working with the bonding company for some remaining punch list items. Jeff Long also inspected the recent Apron Rehabilitation and Expansion performed by Ranger.

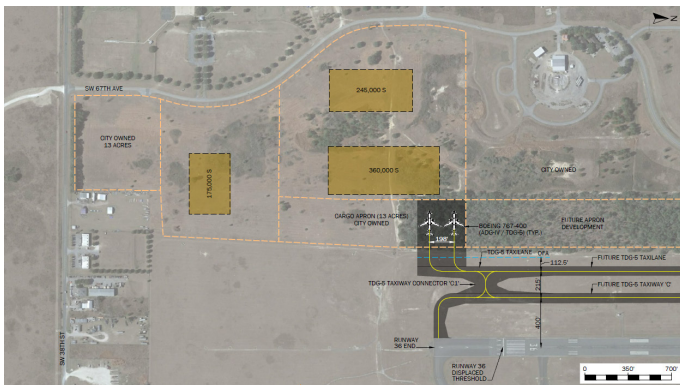
Much needed on the Airport is a west taxiway to the main runway to serve the future equine transport needs and potentially commercial service. An increase in larger aircraft is being seen as result of the transportation logistics hub Ocala is becoming and the World Equestrian Center. ICE has utilized their in-house skills to evaluate numerous development potentials with the last piece of vacant land to the southeast for box and bulk hangars, T-hangar and RV development to the north, and the much-anticipated west side growth for these larger aircraft. These various development scenarios present an opportunity for our architectural capabilities and aviation planners to work together to formulate the best possible concepts that one day will become reality. **Equally important, the combined availability and a firm culture of client service for engineers, architects, and planners allows ICE to succeed in providing this sound advice and support at a moments notice.**



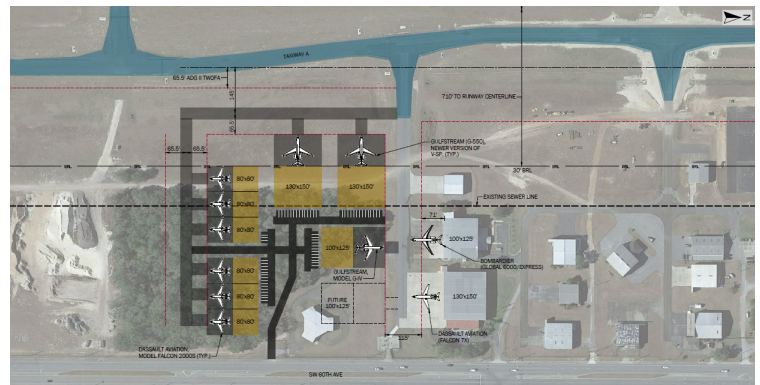
Terminal Restaurant Design & Build-Out



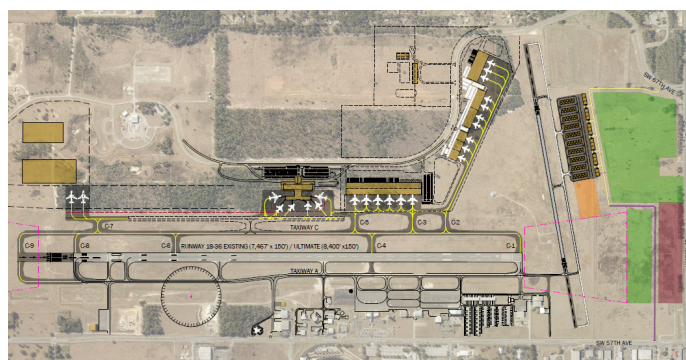
Taxiway "A" Construction



West Parallel Taxiway and Aircraft Parking Apron ALP Concept

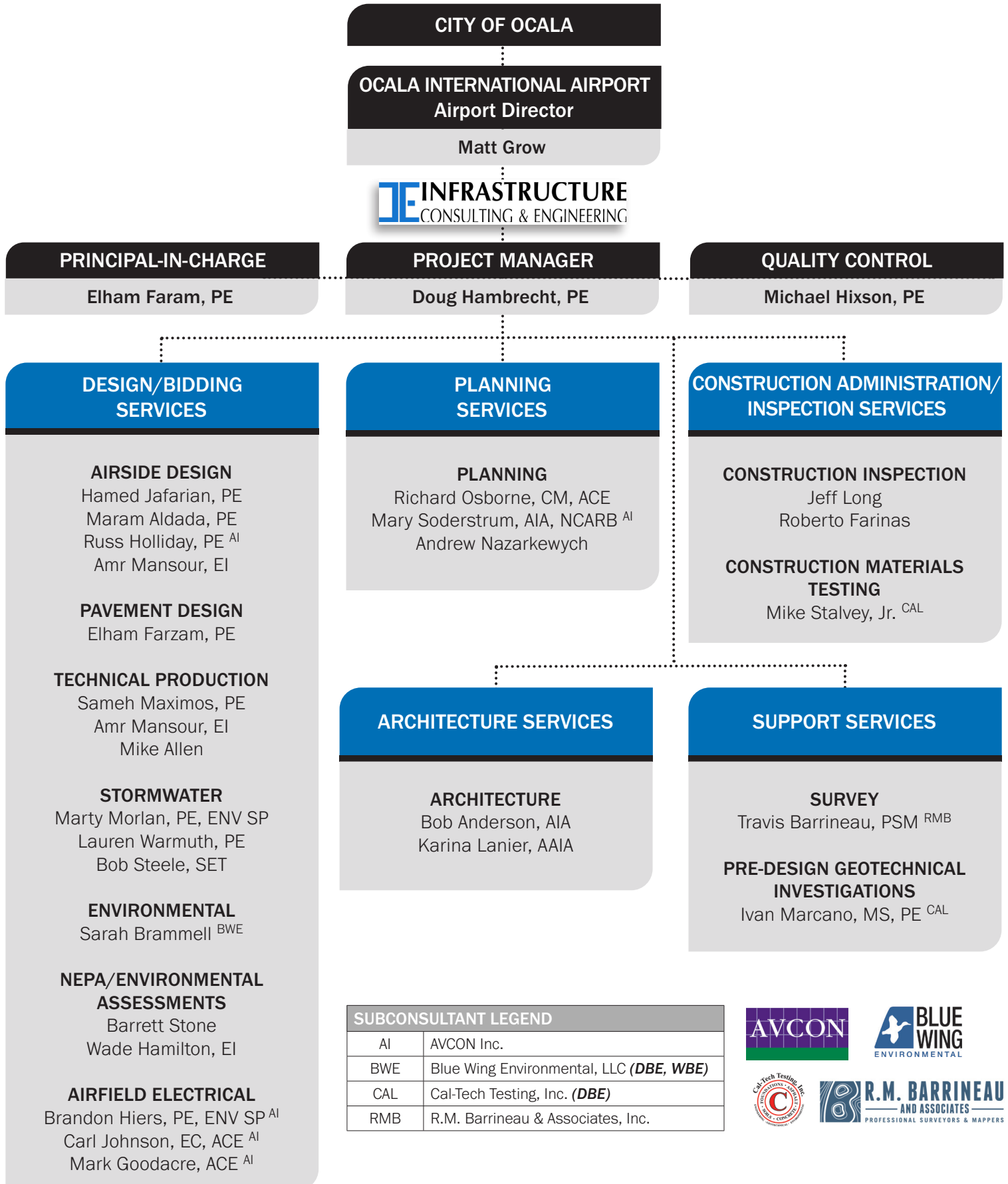


Southeast Bulk and Box Hangar ALP Concept



Northwest Parallel Taxiway and Apron Development Concept Including Commercial Service Terminal

CAPITAL IMPROVEMENT PLAN FOR OCALA INTERNATIONAL AIRPORT		
YEAR	PROJECT	ICE TEAM'S APPLICABLE EXPERIENCE
2021	APPLY RUNWAY FRICTION COURSE RY 18/36	Currently underway by ICE
2021	REPAINT RY 18/36	Currently underway by ICE
2022	DESIGN REHABILITATE GA TERMINAL APRON	ICE completed North Apron Rehab and Expansion at Ocala International Airport and West Apron Expansion at Destin-Fort Walton Beach Airport (Fort Walton Beach)
2022	CONSTRUCT ACCESS ROAD	ICE has the FDOT prequalifications and a long list of applicable projects
2023	REHAB T-HGR TAXIWAY AND APRON	Recent T-Hangar Replacement at Sarasota Bradenton International Airport (Sarasota)
2024	CONSTRUCT T HANGAR	Recent experience at Brooksville, Sarasota, Sebastian, Valkaria, and Dequincy (LA).
2024	EA WEST SIDE IMPROVEMENTS	ICE environmental NEPA experience and the experience of subconsultant, Blue Wing Environmental, LLC (DBE, WBE)
2025	EXTEND RUNWAY 8/26	Craig Air Center (Jacksonville); Daytona Beach Int'l Airport (Daytona Beach); Orlando Sanford Int'l Airport (Sanford); Sarasota Bradenton Int'l Airport (Sarasota); Marianna Municipal Airport (Marianna); Zephyrhills Municipal Airport (Zephyrhills); Ormond Beach Municipal Airport; Ashe County Airport (NC); Blue Grass Airport (KY)
2025	INCREASE WIDTH RY 8/26	ICE performed concept analysis and benefit cost for symmetrical versus widening to the north on this Project
2025	DESIGN PHASE 1, TXY-C	ICE performed planning level documents of widths, cost offset, and connector placement at OCF
2025	WIDEN TWY-B	ICE designed the widening of Taxiway "A" at OCF
2026	IMPROVE FUEL FARM	Albert Whitted Airport (St. Petersburg) and Destin-Fort Walton Beach Airport for design and construction administration
2026	CONSTRUCT PHASE 1, TWY-C	New taxiways at Crestview, Palm Beach, Sebastian, and Tallahassee
2029	EA EXTEND RUNWAY 18/36	Experience of subconsultant, Blue Wing Environmental, LLC (DBE, WBE)
2030	CONSTRUCT ARFF BUILDING	Concept planning for floorplan and location at Ocala International; Fort Smith ARFF; and SC Fire Academy
2030	INSTALL AWOS EQUIPMENT	Siting analysis for current AWOS at Ocala International
2030	ACQUIRE LAND FOR APPROACHES	Subconsultant to be determined
2031	CONSTRUCT EXTENSION RY 18/36	BCA, Craig Air Center (Jacksonville) and Runway 7L-25R, Daytona Beach International Airport (Daytona Beach)

ORGANIZATIONAL CHART

ICE very much desires to continue to serve as an aviation consultant at the Ocala International Airport. As experts in engineering, architecture, planning, and construction, we are proud to offer the City a team of professionals with a proven track record of delivering numerous projects at similar-sized GA airports. Having worked closely with airport staff for many years, **we bring an understanding of your needs and vision for developing the Airport** backed by the demonstrated experience necessary to deliver, which makes us well-suited to serve as an excellent consultant for the identified Capital Improvement Plan (CIP) projects. **Furthermore, we are committed to prioritizing the City of Ocala and Airport staff at all times.** From concept through completion, our primary focus is to provide exceptional client service. We are a firm that has a keen understanding of FAA Advisory Circulars, rules and processes for grant assurances, construction contracts, project documentation, and construction engineering and inspection. Our long-standing and strong relationships with the FAA and FDOT prove invaluable when assisting our clients in obtaining federal and state funding. Summarized below are the key differentiators that ICE brings and how we can add value to aide OCF in meeting its goals and objectives.



IMMEDIATE AVAILABILITY | Of critical importance to the success of this Contract, the ICE Team has the **immediate availability, resource depth, and capacity** required to expedite work in order to meet tight project and grant funding schedules. **Based on the ample availability of our aviation staff shown in Criteria 4 (page 20) through the end of 2022, we are confident in committing these professionals to you for the Contract term.** Our current assignments will not reduce or impact our capabilities to provide the required services for this Contract. In addition to the staff proposed, the ICE Team has the resource depth available to provide supplementary staff if needed or unexpected events occur. Our Project Manager, Doug Hambrecht, PE, is eager to continue working alongside Airport staff. Our goal is to exceed the City's expectations in all aspects of professionalism and service.

SIMILAR AGENCY AVIATION ON-CALL EXPERIENCE | ICE has been privileged to serve airports and state agencies, through on-call, continuing service agreements, and Indefinite Delivery Contract (IDC) consulting services to municipal clients since our establishment. **ICE currently holds on-call aviation consulting contracts as the prime consultant for the following local governmental agencies: City of Ocala, City of Sebastian, City of St. Petersburg, Brevard County, Collier County, Okaloosa County, and Volusia County.** Working with state, municipal, and local agencies requires a keen understanding of state,

federal, and local guidelines which has allowed us the opportunity to prove ourselves as reputable aviation and transportation engineers and a responsive consultant. The ICE Team's current and previous experience working with these airports and others throughout Florida, has afforded our professionals a keen understanding of the processes and intricacies associated with providing professional services on general consulting contracts.

At a glance, our Staff's similar project experience working at General Aviation Airports throughout Florida includes:

- Ocala International Airport
- Bob Sikes Airport
- Cecil Airport
- Jacksonville Executive at Craig Airport
- Brooksville-Tampa Bay Regional Airport
- Treasure Coast International Airport
- Kissimmee Gateway Airport
- Space Coast Regional Airport
- Albert Whitted Airport
- St. Pete-Clearwater International Airport
- Peter O. Knight Airport
- Sebastian Municipal Airport
- North Palm Beach County Airport



ICE's current on-call contract experience for the Cities and Counties makes us adept at reporting to these agencies and administrators while operating as a first-class aviation consultant. We work closely with our clients daily to keep them informed, to successfully execute their vision, and to deliver solutions in a timeframe that exceed their expectations. We provide regular progress updates, facilitate in-person meetings, and continuously monitor schedules and budgets set forth during project development. ICE professionals provide the dedicated service that our clients expect and deserve, and we pride ourselves on timely job progress and delivery of a quality product. As a result, we are honored to have been rewarded with **repeat business and long-term relationships**. Our Project Manager has had a 10-year relationship with the City of Ocala undertaking various projects, concepts, analysis, and general assistance at the Airport over the course of these years.

PROVEN SOLUTIONS | Through our diverse and hands-on experience, there is not much that our airport engineers, architects, aviation planners, and former airport managers have encountered. This enables us to offer proven solutions that have been successfully implemented at other facilities. The value-added services of these our professionals allow us to understand decision impacts to related agency offices. For example, the ICE Staff recently helped the Airport with their impressive terminal building by providing provisions for vacant space planned for future interior build-out. Subsequently, we were entrusted to provide additional architectural services as a follow up for the Airport to convert this space seamlessly into a successful restaurant.

MINIMIZING CHANGE ORDERS | Many change orders improve the overall project. Some are client requested changes. In many of our projects, change orders were solicited to the contractor because it was clear the Project would under run set aside funds. In any event, our Team realizes the number of change orders are often viewed as a reflection on how successful the project was. To minimize change orders, our Team focuses first on an airtight contract and strives for error proof design. This is done by performing exhaustive field reviews of existing conditions, assembling all known information on underground facilities, and extensively checking the design plans. During construction, our Resident Engineers and Inspectors stay ahead of the construction and know how to anticipate small problems before they become large. Our Team has an excellent history of minimizing additional costs.

The following projects have been featured to demonstrate the ICE Team's performance with projects that are similar to those that may be included in this Contract or represent the quality work ICE has achieved for Ocala.

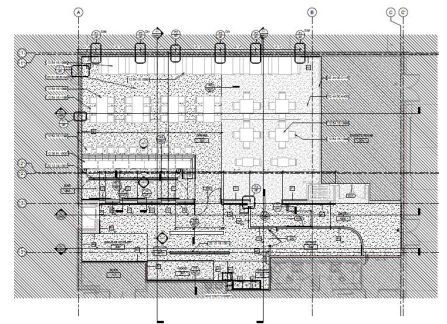
AIRPORT AIRFIELD DESIGN CONSULTANT SERVICES CONTRACT

OCALA INTERNATIONAL AIRPORT

ICE was awarded the Contract for Airport Airfield Design Consultant Services in April 2017. The ICE Team successfully delivered the projects assigned and the services requested, the City continued the partnership and exercised two Contract extensions, the current one ending in March 2022. The following projects have been completed under this Contract:

OWNER'S
REPRESENTATIVE
Matt Grow
mgrow@ocalafl.org
(352) 861-2227

RESTAURANT DESIGN AND CONSTRUCTION OVERSIGHT | ICE represented the Airport in the construction administration on this Project that consisted of retrofitting approximately 3,600 SF of unfinished space that faces the apron to rent to as a restaurant. The build-out consists of an open dining area, bar, and kitchen. The retrofit was completed December 2021 and then was transferred to the tenant for the final installation of equipment and furnishings. This was an FDOT funded project and ICE was experienced on the required procedures and billing. ICE managed all communication between the architect, engineers, and general contractor to ensure the Project stayed on schedule and within budget. All communication was funneled through them to the Airport and back to the Project Team. ICE also managed the submittal, RFI, billing, and change orders. ICE oversaw the design of the restaurant, incorporating details from the owners and approved requests from the employees to produce an efficient and productive layout while still being aesthetically pleasing. The intention was to bring community customers and visitors, not just passengers to the Airport. After the construction of the built-out was complete, the Airport will be building a playground that will have access from the restaurant. The restaurant's design effectively combined Airport's overall vision with the tenant's branding requirements. ICE provided QA/QC for the construction documents to ensure both the restaurant and Airport's specifications were met.



COMPLETION DATE: 2021 PROJECT SIZE: 3,600 SF
PROJECT COST: \$500,000

KEY TEAM MEMBERS:
Karina Lanier, AAIA | Project Manager/Architecture
Doug Hambrecht, PE | Principal

CONSTRUCTION INSPECTION FOR AIRCRAFT APRON REHABILITATION AND EXPANSION

| This Project included the rehabilitation of the existing apron located between Taxiway "A-3" and "A-4" as well as the expansion of new pavement to the south of "A-7". It involved milling and resurfacing 38,324 square yards of asphalt, construction of 10,374 square yards of new aircraft asphalt apron, installation of aircraft tie downs, temporary and permanent pavement markings, pavement edge lighting, grading, stormwater facilities, and sod. ICE provided a part-time Resident Project Representative (RPR) and inspection services.

The RPR was responsible for inspecting construction activities, receiving materials per approved submittals, monitoring contractor activity daily, managing QA activities, coordinating construction activities with Airport

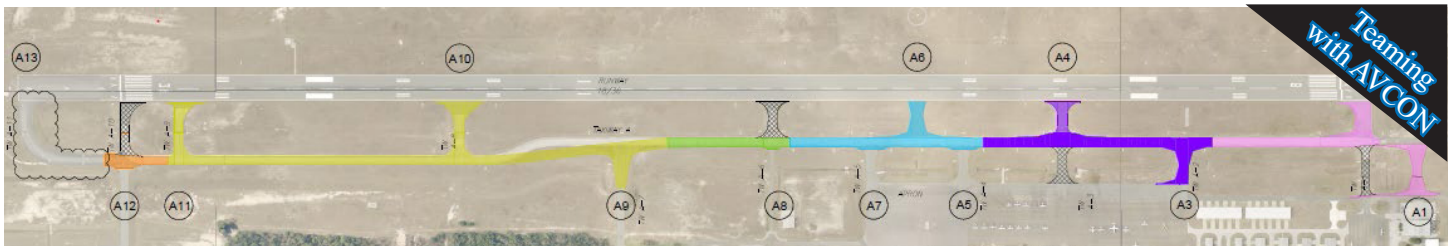


Operations, conducting weekly progress meetings and maintaining the minutes, maintaining redline drawings, conducting Davis-Bacon Interviews, and ensuring contractor compliance with the Safety and Security Plan as well as the Phasing Plan and Construction Management Plan.

COMPLETION DATE: 2021
PROJECT SIZE: 48,698 SF
PROJECT COST: \$1.2 Million

KEY TEAM MEMBERS:
Doug Hambrecht, PE | Project Manager
Jeff Long | Senior Inspector

TAXIWAY A REHABILITATION | This Project included milling and overlay of the existing taxiway as well as the demolition of several taxiway connectors and the construction of several new taxiway connectors. Included a re-alignment of portions of the existing taxiway as well as widening and the addition of taxiway edge lights and signage. ICE provided a full-time RPR and inspection services. The RPR was responsible for inspecting all construction activities, receiving materials per approved submittals, monitoring contractor activity daily, managing QA activities, coordinating construction activities with Airport Operations, conducting weekly progress meetings and maintaining the minutes, maintaining redline drawings, conducting Davis-Bacon Interviews, and ensuring contractor compliance with the Safety and Security Plan as well as the Phasing Plan and Construction Management Plan. Services also include full construction administration to include FAA and FDOT reporting, reviewing and logging submittals and RFIs, weekly reporting to the Airport Director, issuing change orders, change directives, and information notices, monitoring DBE participation, reviewing pay requests, producing the Construction Safety and Security Plan for acceptance by the FAA, producing the Construction Management Plan, and contracting for Quality Assurance Testing. Services also included full close-out documentation. ICE worked with their current Team member, AVCON, in re-designing the airfield edge light layout. **The Project finished under budget.**

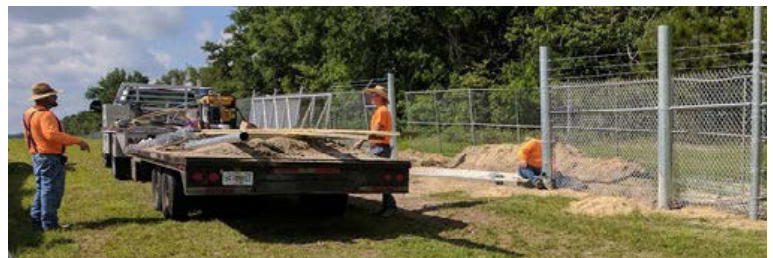


COMPLETION DATE: 2021
PROJECT SIZE: 8,000 SY
PROJECT COST: \$5.3 Million

KEY TEAM MEMBERS:
Doug Hambrecht, PE | Project Manager
Hamed Jafarian, PE | Engineer
Amr Mansour, EI | Design Engineer

Sameh Maximos, PE | Engineer
Andrew Nazarkewych | Planning
Mike Allen | CAD Designer
Jeff Long | Senior Inspector

AIRFIELD PERIMETER FENCE | This Project was part of the Capital Improvement Plan (CIP) to eliminate digging under the existing fence by coyotes, gopher tortoises, and other wildlife by constructing a wildlife skirt. A 5' fence skirt was buried a minimum of 36" into the ground under the existing fence fabric and followed the 33,000' (roughly six miles) of existing fence. All swing gates were replaced with sliding gates, and a 6' concrete apron was poured under the gate to limit gaps. ICE provided the design, bidding, and construction phase services for this Project as well as FDOT and FAA grant packages, grant assurances, and closeouts. **The Project was completed on time and under budget.**



COMPLETION DATE: 2018
PROJECT SIZE: 33,000 FT
PROJECT COST: \$384,400

KEY TEAM MEMBERS:
Doug Hambrecht, PE | Project Manager
Hamed Jafarian, PE | Engineer

Amr Mansour, EI | Design Engineer
Mike Allen | CAD Designer



ICE partnered with AVCON for the total reconstruction of the existing 2.5-mile-long Taxiway “N” (and Taxiway “A”) with reconfigured edge of pavement geometry, paved shoulders widened from 25’ to 30’ in width, installation of a new storm water drainage system, and the installation of new LED taxiway edge lights. ICE performed the taxiway horizontal geometric design and layout and developing the overall construction safety and phasing plans. This included preparing preliminary layouts, construction phasing schedule, quantities, engineer’s estimates, markings, phasing documents and plans, OE/AAA permit, and preparation of bid packages. The intersections were reconfigured and widened to meet AC 150/5300-13A requirements along with the paved shoulders widened from 25’ to 30’ in width. The existing incandescent taxiway edge lights, which were approximately 20 years old, were replaced with new LED taxiway edge lights. Work included removing failed areas of taxiway pavement and areas of pavement that no longer complied with the new airport design guidance, removing the existing incandescent taxiway edge lights, widening and reconfiguring the taxiway/taxiway intersections to comply with 13A geometry, rehabilitating the existing asphaltic concrete pavement, installing a new underdrain system at the edge of the taxiway and the paved shoulders, removing and replacing all airfield drainage pipe and catch basins. The Project was sequenced and phased to keep the airport safe and fully operational at all times during construction.



ICE served as a subconsultant on this Project that provided professional engineering services to expand the aircraft parking aprons north of the existing apron due to the rapid growth of the Airport. It required three additional aircraft parking spaces for the Airbus A319/A320/A321 and 737-800 aircraft. Originally designed with a blast fence for power in-power out operations, only two positions were originally obtainable, so the Airport directed ICE to revise for straight in operation with tug push back. In total, the Project included 8,600 square yards of 15-inch PCC pavement, 2,600 square yards of macro-fiber reinforced 8-inch PCC pavement, and 3,200 square yards of flexible taxiway pavement. The overall scope for this project included field surveys, geotechnical investigation, geometric layouts, pavement design, stormwater management design and permitting, high mast light standards and electrical modifications, relocation of a pump station, blast fence design and relocation of a security fence, extension of an existing lighted passenger walkway and canopy, signage, pavement markings, bidding, and construction services.

COMPLETION DATE
2019

PROJECT SIZE
2.5 Miles

PROJECT COST
\$14 Million

KEY TEAM MEMBERS
Doug Hambrecht, PE
Project Manager
Hamed Jafarian, PE
Project Engineer
Amr Mansour, EI
Design Engineer
Mike Allen
CAD Designer

COMPLETION DATE
Design: 2017

Construction: 2018

PROJECT SIZE
8,600 SQ YD

PROJECT COST
\$3 Million

KEY TEAM MEMBERS
Doug Hambrecht, PE
Project Engineer
Hamed Jafarian, PE
Aviation Engineer
Amr Mansour, EI
Design Engineer
Mike Allen
CAD Designer



WEST APRON EXPANSION & TAXIWAY REHABILITATION DESTIN-FORT WALTON BEACH AIRPORT

This complex, \$11 Million project enlarged the West Apron at VPS in order to create five additional commercial aircraft ground loading apron spaces for A319/320 and other narrow body aircraft. The spaces also serve as flexible remain overnight (RON) space for aircraft to base for early flights when all of the existing spaces with jet bridges are full or otherwise under exclusive lease by another airline. Adjacent existing asphalt apron pavement, taxiways, and vehicle parking were also rehabilitated. Significant utility relocations were performed to include gravity sewer, force main, electrical, and water service. Structural work included the construction of a steel covered walkway for passengers accessing a future terminal concourse.

ICE worked with Airport staff and the FAA to finalize apron dimensions and develop detailed site development plans including airfield pavement structural design, geometrics, markings, lighting requirements, and other aircraft support infrastructure required (tie-downs, ground points, electrical or other infrastructure for ground power units, etc.). ICE served as the lead design firm and was responsible for project management, QA/QC, airfield design, production design (CADD), environmental services, and grant and bidding services. ICE also provided construction management services for the construction phase. The following design services were provided:

TAXIWAY RECONSTRUCTION

- ⦿ Replacement of existing asphalt with concrete for taxiway on west side of terminal where Taxiway "D-1" meets the apron to the northern most boundary of the apron

AIRCRAFT PARKING POSITIONS 1-5

- ⦿ Apron design for ADG III aircraft
- ⦿ Pavement design for airport's critical aircraft, 757
- ⦿ Concrete joint design and apron markings
- ⦿ Stationary ground power and pre-conditioned air units
- ⦿ High mast site lighting, edge light modifications, and security cameras
- ⦿ Site clearing for remote terminal
- ⦿ Fence and gate relocation
- ⦿ 12" water line relocation; lift station; 8" gravity, 6" force main; and lavatory cart dump

CREDIT CARD LOT

- ⦿ Modification of existing parking with apron and concourse footprint
- ⦿ Expansion of parking to account for new concourse
- ⦿ Extension of canopy walkway
- ⦿ Modification of lighting

OWNER'S REPRESENTATIVE

Chad Rogers, PE
rrogers@co.okaloosa.fl.us
(850) 651-7160 (ext.1055)

COMPLETION DATE

Design: 2019
Construction: 2020

PROJECT SIZE

20 Acres

PROJECT COST

\$11 Million

KEY TEAM MEMBERS

Doug Hambrecht, PE
Project Manager

Hamed Jafarian, PE
Lead Aviation Engineer

Amr Mansour, EI
Design Engineer

Mike Allen
CAD Designer

Jeff Long
Senior Inspector

Roberto Farinas
Inspector



PARKING LOT "B" EXPANSION DESTIN-FORT WALTON BEACH AIRPORT

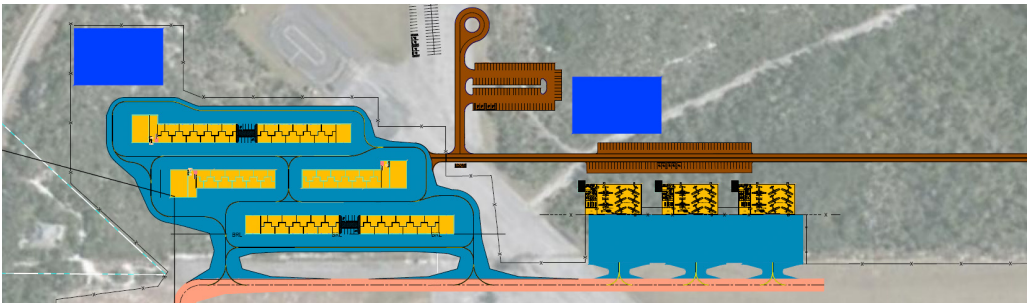
ICE teamed with AVCON for this Project that expanded surface lot parking on the west side of the Airport in conjunction with other passenger capacity expansion projects to meet demand and ensure employees have adequate parking during peak travel periods. The construction was funded through a Supplemental Joint Participation Agreement with the FDOT and included construction of a 506-space parking lot. The scope consisted of grubbing, construction of subgrade improvements, base material and asphalt, pavement markings, concrete curb and sidewalk, grading, storm improvements, and site lighting and security camera improvements. AVCON performed the design. ICE was responsible for the construction inspection services and provided a full-time Resident Project Representative (RPR).

COMPLETION DATE
2020

PROJECT SIZE
20,300 SQ YD

PROJECT COST
\$1.7 Million

KEY TEAM MEMBERS
Doug Hambrecht, PE
Project Manager
Roberto Farinas
Inspector



T-HANGARS, BOX HANGARS, AND ACCESS TAXIWAY DEVELOPMENT VALKARIA AIRPORT

ICE is leading the design for a significant project development consisting of three, 24-unit nested T-Hangar buildings with attached box end hangars as well as three separate bulk hangars to be located off the north end of Runway 14 at the Valkaria Airport. The complete site development, including taxiways, roadway drainage and utilities, includes preparing civil site design drawings, technical specifications, and schematic drawings. The ICE Team will also develop the Construction Documents package for use in bidding and permitting the Project. The design includes six buildings that are 10 T-Hangars each totalling 12,000 square feet. The three small box hangar end units are 2,500 square feet each and the three large box hangars are 6,000 square feet each. The three bulk hangars will each be 90 feet by 130 feet and include 100-foot-wide bi-fold doors. The building footprint will total approximately 15,450 square feet, including 12,000 square feet of box hangars and 3,000 square feet of office and support space, and a workshop space of 450 square feet.

COMPLETION DATE
Design: 2021
Construction (Phased):
2022-2024 (est.)

PROJECT SIZE
T-Hangars: 16,500 SQ FT
Box Hangars: 12,000 SQ FT
Total Buildings: 15,450 SQ FT

PROJECT COST
\$24 Million

KEY TEAM MEMBERS
Karina Lainer, AIA
Project Manager/Architecture
Doug Hambrecht, PE
Principal
Hamed Jafarian, PE
Operational Manager
Amr Mansour, EI
Design Engineer
Mike Allen
CAD Designer
Bob Anderson, AIA
Architecture
Andrew Nazarkewych
Planning



TAXIWAYS “C”, “D”, AND “E”

SEBASTIAN MUNICIPAL AIRPORT

TAXIWAY “C” | ICE provided engineering and construction management services for a new parallel taxiway on the north side of Runway 5-23 designated as Taxiway “C”. Previously, aircraft entering or exiting the Runway 5 threshold were required to cross active runways three times when taxiing from the busy tenant area near the airport’s administration building; this project rectified the issue to make it a safer operating environment for all aircraft operators. All taxiways associated with this project were upgraded to the new design standards in FAA Advisory Circular 150/5300-13A, which included the new fillet geometry and direct access to aprons from the runway.

Major components of the design project included:

- Geometric Design
- Aircraft Run-up Aprons
- Removal of Taxiway Pavement
- Stormwater Ponds and Relocation of Existing Infield Drainage
- Environmental Resource Permit from SJRWMD
- Airfield Guide Signs (Entire Airport)
- Airfield Marking

TAXIWAYS “D” AND “E” | ICE provided engineering services for this project which involved adding taxiways to further assist in facilitating traffic movement at X26. These are Taxiway “D” to the south of Runway 5-23 and Taxiway “E” to the south of Runway 10-28. These taxiways were designed to move aircraft safely from the runway intersection crossing point to a crossing at the runway thresholds. All taxiways were designed to ADG II standards (35’ width). It was the intent of the airport and the FAA to construct the project in multiple phases to match available funding. ICE provided full, signed and sealed drawings, specifications, and permit documents.

For the Taxiways “C”, “D”, and “E” projects discussed above at the Sebastian Municipal Airport, ICE and the City of Sebastian met with the FAA several times to illustrate the capacity needs and the safety improvements this project provided. This upfront coordination during visits to Orlando led to a **grant award in excess of \$4,200,000 for the City.**

OWNER’S REPRESENTATIVE

Scott Baker
rbaker@cityofsebastian.org
(772) 228-7013

COMPLETION DATES

Taxiway “C”
Design: 2019
Construction: 2019

Taxiway “D” and “E”
Design: 2017
Construction: 2019

PROJECT SIZES

Taxiway “C”: 3,900 feet
Taxiway “D”: 1,300 feet
Taxiway “E”: 1,800 feet

PROJECT COST

\$3.95 Million (Combined)

KEY TEAM MEMBERS

Doug Hambrecht, PE
Project Manager

Hamed Jafarian, PE
Aviation Engineer

Amr Mansour, EI
Design Engineer

Andrew Nazarkewych
Planning

Jeff Long
Senior Inspector

Mike Allen
CAD Designer

PROJECT APPROACH

PROJECT APPROACH BASICS

Several key procedures will be performed to successfully coordinate individual airport improvement projects assigned throughout the life of the Airfield Design Consultant Contract:

- ⦿ A design schedule developed and implemented which will provide continuity between project elements and the tasks to be performed by subconsultants.
- ⦿ The pre-design field work (such as survey, geotechnical, and pavement evaluation) scheduled for minimum impact to airport operations.
- ⦿ An accurate and thorough set of construction plans and technical specifications produced to eliminate any ambiguities during construction and, thereby, to stay within the construction budget and schedule.
- ⦿ A detailed construction phasing and sequence plan to effectively minimize downtime at the Airport while providing the maximum flexibility in construction to maintain the project on schedule.
- ⦿ A competent Resident Inspector and quality assurance testing subconsultant, to ensure a high-quality construction product, which will be completed well within the contract schedule and budget.

The methodology to administer an airport project begins at the planning stage. The ICE Team is more than adequately equipped to administer the early stages of project development to assist clients with the various up-front efforts required before being under contract for design. These services include:

- ⦿ Financial (FAA AIP Applications, FDOT JACIP, Benefit Cost Studies and Cost Estimates);
- ⦿ Aviation Planning (Compatibility with airport layout plan (ALP), airspace impacts and alternatives analysis);
- ⦿ Public Involvement (agencies, tenants, and community);
- ⦿ Environmental Impacts (Estimate Wetlands, Endangered Species, Mitigation, and Permitting);
- ⦿ Architectural considerations (Code reviews, NFPA requirements, Land Use and tenant needs);
- ⦿ Engineering Constraints (utilities, stormwater implications and impacts to operations);
- ⦿ Preliminary Layouts and Exhibits; and
- ⦿ Data Collection (site visit, acquire as-builts).

Most important are upfront discussions with City staff to listen and understand the project's needs and intended goals. A detailed project narrative is developed for use in obtaining necessary approvals moving forward. As a partner to the City of Ocala, ICE will ensure a solid foundation for future scoping and project viability.

PROJECT RESOURCES

Project Management | ICE's service to the Airport over this Contract begins and ends with how well the Project Manager supports the City. As the primary point of contact, this individual must make themselves available to attend an onsite meeting and quickly respond with an answer to any question the City may have regarding their airport. A good client-oriented firm like ICE needs to have this mentality regardless of upfront costs or a contract in place. The commitment ICE makes to the Airport and the City of Ocala is to provide this highly qualified, responsive Project Manager that can assist with any issue that arises, regardless of the nature, complexity, or his schedule.

Our Project Manager (PM) is an experienced aviation professional with 27 years of design and construction project on airports. He uniquely fits all the qualifications listed above and has a strong sense of responsibility

towards project delivery and accuracy. He has been working for Ocala International Airport for 10 years (5 with a previous firm) where he has assisted in grants, engineering plans, planning layouts, ALP updates, and daily airport consultation. He looks forward to continuing this relationship with Ocala and the ICE Team.

The approach for completing the services required for this contract necessitates a highly qualified Team, which we have assembled. From experience we know frequent communication and coordination with the owner is essential. Our approach begins and ends with solid Project Management. Elements of Project Management to be performed by our PM and other discipline managers working as support will be:

Contract Management – Involving the internal management of the contract including general project bookkeeping, cost tracking, billing, filing, record keeping and contract coordination with project subconsultants. The PM will maintain and monitor project schedules to ensure critical milestones are met by the design team.

Meetings – The PM will attend all submittal review meetings, meetings where critical items are discussed and coordinated, be present or administer meetings with FAA, utilities, permitting agencies, tenants, operations, and other affected parties.

Financial – During design and construction, track all costs related to the project and maintain a spreadsheet of expenses. Have accurate budget information and ensure the design is performed in accordance with the Airport's available funds or advise the owner of potential overruns early in the process so adjustments in scope can be made.

Coordination – Be readily available to the design team, coordinate review and regulatory agency approvals, and schedule and administer design team meetings. Keep the airport apprised of the work progress, schedule, and anticipated review dates by means of phone calls, emails or progress reports.

Production – A key component independent of the Quality Control process is to ensure the overall design is consistent with the airports desired objectives. Review all plans, reports, minutes, schematics, and calculations to ensure these objectives are met.

Administer Construction – Stay involved during construction to ensure not only the technical requirements are met, but make sure the intent and desired functions are realized. Too often attention is deflected once the design is complete. We make sure all the documentation is in place, the schedule is upheld, and costs are controlled.

Closeout – Have impeccable files to facilitate closeout reporting and permit closeouts.

Our goal for the General Consulting role and for each individual assignment, large or small, is to be actively engaged with Matt Grow and Mike Baker so that we function as an integral component of the organization and an extension of the City staff. Our approach is all inclusive: all Team members understanding the objectives with a vital stake in the project's success.

IN-HOUSE DISCIPLINES

Engineers | ICE has many engineers dedicated to aviation. They are highly experienced with all aspects of airport design and the regulations associated with the FAA Advisory Circulars. Every day they produce plans consistent with proper airfield geometry, safety areas, airfield marking and grading. They understand the Ocala International Airport environment from the types of aircraft they serve, the tenant needs, Sheltair's operation, the role of each of the airport's runways (18-36 and 8-26), and the FAA tower requirements. The goal is to provide a complete set of plans and specifications that cover all scenarios and free from errors, omissions, and ambiguities. Also, to utilize our resources to produce accurate cost estimates for budgetary purposes, even in today's supply chain and product shortage uncertain environment.

Architects | ICE is one of the few Florida firms with specialized aviation architecture capabilities in house. This has proven to be extremely beneficial to our clients, and more specifically for OCF when evaluating terminal concepts, hangar placement, and the interior design of the new restaurant. Karina Lanier was part of the design team for the design for the existing terminal building and knows the facility inside out. The advantage to OCF is clear when providing day-to-day consulting advice and solutions.

Planners | Aviation planning is an in-house service that ICE retains. It has proved extremely beneficial to the airport when evaluating proposed development options. Many opportunities for growth and land leases are available to the airport. ICE has been instrumental in assisting the airport through the last few years with evaluating impressive plans for westside development with the future growth of the area, equine transport, commercial service, intermodal shipping and cargo. Also, tenants for new T-Hangars and corporate hangars see the opportunities the region has and are increasingly interested in basing their aircraft and businesses. ICE hopes to continue this partnership and see this potential materialize.



Construction Inspection | An integral part of our services is seeing the project through completion. ICE takes the same active role from the completion of the design through bidding, and into construction. Our experienced construction inspectors and construction management staff have worked very closely with the City's construction staff on the Taxiway "A" construction project and the main apron rehabilitation and inspection. Taxiway "A" required significant coordination with airport operations for closures of the taxiway and runway to provide safe movement of aircraft and tenant access to runways. This year-long project required complete commitment of ICE staff and management to produce a successful project that only highly experienced aviation construction personnel could have accomplished. Our goal is to continue the heavily involvement and support until that element of the construction project is complete and grants are closed successfully with funding agencies.

Environmental Services | The ICE Team has the ability to conduct all applicable environmental studies and prepare all appropriate documentation in accordance with the National Environmental Policy Act (NEPA). Appropriate documentation includes the preparation of Environmental Assessments (EA), Categorical Exclusions (CatEx), or Environmental Impact Statements (EIS) that are in accordance with the Federal Aviation Administration (FAA) Orders 5050.4 and 1050.1. These orders provide instructions and guidance regarding NEPA compliance associated with federal actions involving the use of public airports. Project scoping consists of determining the appropriate level of documentation needed for the assigned project. The ICE team would conduct all environmental technical studies and agency coordination needed to determine and complete NEPA documentations. This includes, but is not limited to protected species assessments, wetland delineations, and cultural resource investigations. For projects resulting in major federal actions that do not qualify as a CatEx, an EA will most likely be required to determine if the action will result in significant impacts. The overall process is similar but will require additional documentation and analysis to determine potential impacts on the numerous environmental and human resources. Actions that normally require an EA are documented in 1050.1E, 401 and include new land acquisitions greater than three acres and federal funding for new/major runway extensions.

IN-HOUSE TECHNICAL SUPPORT

CAD Designers | ICE employs an adequate number of computer aided drafting tools for production support. They have AutoCAD and Civil 3D software that allow them to produce clear sets of drawings for construction and planning documents. Having an experienced group of these technical experts in-house will allow ICE to respond to OCF's needs and meet schedules.

Specialty Subconsultants | ICE will heavily utilize the services of one of the most well-respected firms in Florida, AVCON Inc. They have been a major partner with ICE for many years and have performed well on past assignments at the Airport. AVCON was asked to review and revise the electrical lighting layout for the construction of Taxiway "A" due to some discrepancies in the plans. In less than two weeks, a new design was turned that was accurate and saved money. ICE will also utilize AVCON's technical capabilities for engineering design support and planning. They will continue to be an integral part of the team.



WILLINGNESS TO MEET TIME AND BUDGET

APPROACH TO MANAGING BUDGET

Since all members of our Team have worked at OCF for several years, we understand the City's needs and the funding needed for their capital projects. During design, the team will be proactive in seeking ways to reduce project costs. This translates to our professional fees as well. ICE's expertise in the aviation discipline allows work within set scope parameters, maximizing efficiency and limit costly redesigns. Because repeat business is so critical to the firm, requesting supplemental fees is avoided whenever possible.

- ⦿ Listen to the client and understand their needs;
- ⦿ Estimate a realistic budget based on actual bids (baseline) with contingency,
- ⦿ Perform early coordination with building departments and regulatory agencies;
- ⦿ Using existing data and record documents;
- ⦿ Perform extensive field verification of exist conditions;
- ⦿ Detailed depiction of underground utilities;
- ⦿ Utilizing proven solutions in order to simplify the design
- ⦿ Adhering to scope of work to minimize scope creep;
- ⦿ Involve experienced and qualified staff who can produce cost-effective designs.

The team will conduct weekly internal progress meetings and perform monthly project reviews to monitor schedules and budgets to identify and resolve project issues early to avoid delays. Detailed cost estimates will be updated regularly and with each design phase submittal. In-depth quality control reviews and constructability reviews will be performed to identify potential discrepancies that can lead to costly change orders. In addition to reviewing the plans, these reviews also encompass contract language and specifications to check for discrepancies and conflicts that a contractor may attempt to take advantage of.

The selected firm for this Contract must be good stewards of the Airport funds. ICE will take the extra effort to find solutions that are more economical without sacrificing quality. Since the ICE staff have been working at OCF for many years, we have records of as-built conditions that date back many years. The is extremely helpful in eliminating unknowns. Frequently, the quality control component of a project often does not recognize missing information that could be available from airport records or subsurface utility efforts, thus going undetected. The ICE Team has a strong background in construction, so elements of constructability, contractor access, staging and work areas, and project phasing can have strong, positive implications on a lower cost.

APPROACH TO MANAGING TIME

The Team understands and realizes that delays in the schedule have an adverse effect on project airport finances and grant funding. Projects that are late could miss FDOT and FAA fiscal year deadlines and be subject to loss of grant funds. Projects that exceed the allotted schedule also cost more in additional administrative costs for the airport staff. This is a drain on the valuable resources to the City.

For each project undertaken by the team, they will prepare a detailed schedule for the client's review and approval. This schedule will highlight critical path items and major work areas, including a breakdown of the sub tasks and corresponding time lines and manpower required to complete the work. Also, included in the schedule is the proper allocation of adequate Quality Control time in advance of each submittal.

Weekly meetings are held with the entire project team, including subconsultants, to evaluate how the design is progressing and determine if the project is on track to meet the deadline or milestone set out in the schedule. If it is determined the project is behind schedule, sufficient additional resources will be made available until the project gets back on track. The key to effective schedule management is understanding where the project currently is, what is left to do, how long it will take, and what resources are needed. This can be accomplished by the Team's experienced Project Managers and engineers who all have a minimum of 20+ years of aviation design experience.

Tracking of the project schedule will be the responsibility of the PM who will look at production and evaluate where the project is on a level of completion scale. In the event a component of the production falls behind, a recovery plan will be discussed to ensure the project remains on track. This recovery plan could involve adding staff or working extra hours to get back on track. The schedule update will be provided to the airport staff on a monthly basis during the design phases of the project, along with a narrative report on the progress of work. Permits are applied for early and adequate float time allotted for agency review and questions. The PM will schedule frequent meetings with subconsultants to stay abreast of their progress. Incremental submittals are made by the subconsultant Team members during the course of a design phase to gauge their progress and similarly come up with a plan for recovery if viewed to be behind schedule.

ICE's management of schedule was evident with the Taxiway "A" construction project. With multiple phases requiring different closures of sections of pavement, extreme importance was placed on holding the contractor to that timeframe. This included discussions on staffing and scheduling during our weekly calls with constant tracking of time elapsed with contract time. Our efforts and documentation were used to hold the contractor to these durations and assess liquated damages for periods when they fell short.

GRANT MANAGEMENT APPROACH

In the past, ICE has been integrally involved in conversations and communication with the FAA and FDOT as it relates to proposed developments, eligibility, and funding. Helping OCF obtain funds is an important function of the ICE consulting Team. ICE staff has been serving General Aviation and small to medium-sized commercial service airports for numerous years. Grant application assistance is an upfront, non-reimbursable service that ICE provides to their clients. Management of the grant, tracking the funds, and ensuring grant compliance is typical with all projects. For aviation projects in Florida, the typical sources of project funding are through FAA and/or FDOT grants. ICE has established outstanding relationships with FAA and FDOT staff, most importantly with the representatives of Ocala International Airport, Joe Jerkins (FDOT), Allison McCuddy (FDOT), and Jennifer Ganley (FAA). They trust the Team to properly formulate grants, adhere to grant assurances, deliver timely reporting, and expeditiously close out grants. ICE staff has experience working with the Florida Aviation Database and with the Joint Automated Capital Improvement Program (JACIP). These programs are integrated with FDOT to show project costs and the 5-year capital improvement plan.

The FAA Orlando Airports District Office and the Florida Department of Transportation work closely and share funding on grants, however, the processes they follow is different. For example, FDOT will fund a project based on estimates, however, FAA only funds projects based on hard bids. The FAA will not participate in most projects that are revenue-producing, while FDOT will. Also, certain elements of a single project could be eligible for full funding and others eligible for funding at a lower participation, or none at all. This situation must be managed closely to ensure proper utilization of the grant funding and proper tracking of construction costs.

The grant application is an important first step in securing the funds. In addition to filling out the 424 application form, ICE staff will:

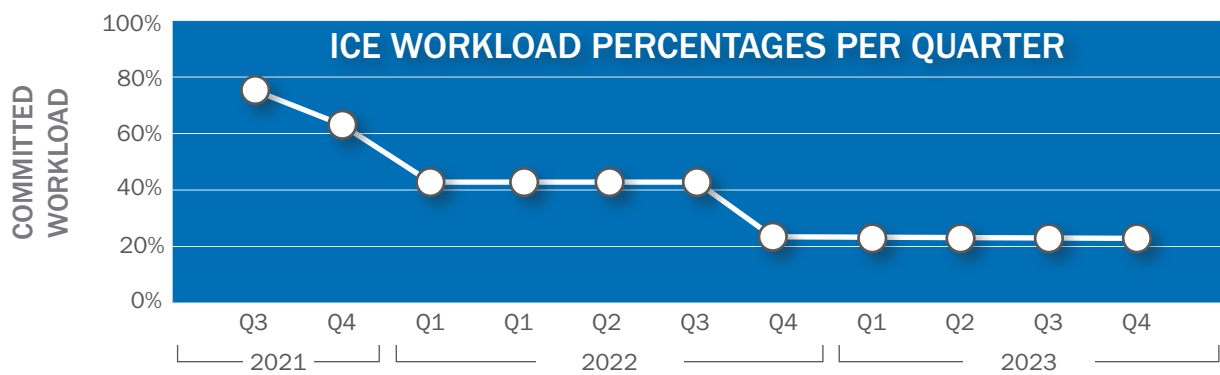
- Write cover letter
- Generate Project Sketches
- Prepare Cost Estimates
- Project Narrative
- Environmental Checklists
- Schedules
- Perform Eligibility Computations
- Sponsor Certifications
- Bid Tabulations (for Construction)

During design and construction, ICE staff ensure the proper procedures are followed for grant compliance. The FDOT requires copies of contracts, signed and sealed drawings, and engineer's certifications. The FAA requires a copy of the plans and specifications. During construction, both agencies want to review change orders with backup information, photos, and justification. For closeout, the ICE Team has their own procedure for compiling file documentation that includes documentation required by both agencies and useful information for the airport staff. This information is provided in a book form and a PDF.

Serving as a current aviation consultant for the City, the ICE Team has the understanding and experience of delivering timely projects and services under the Contract. We have conducted an evaluation of our Team’s current and projected workload and the availability of the proposed personnel to confidently commit these professionals for the Contract duration. **Our current assignments will not reduce or impact our capabilities to provide the required services provided to the City.** We have reviewed the five-year CIP for the Airport and are extremely confident the ICE Team has sufficient resources and capabilities to allocate to this important Contract.

WORKLOADS

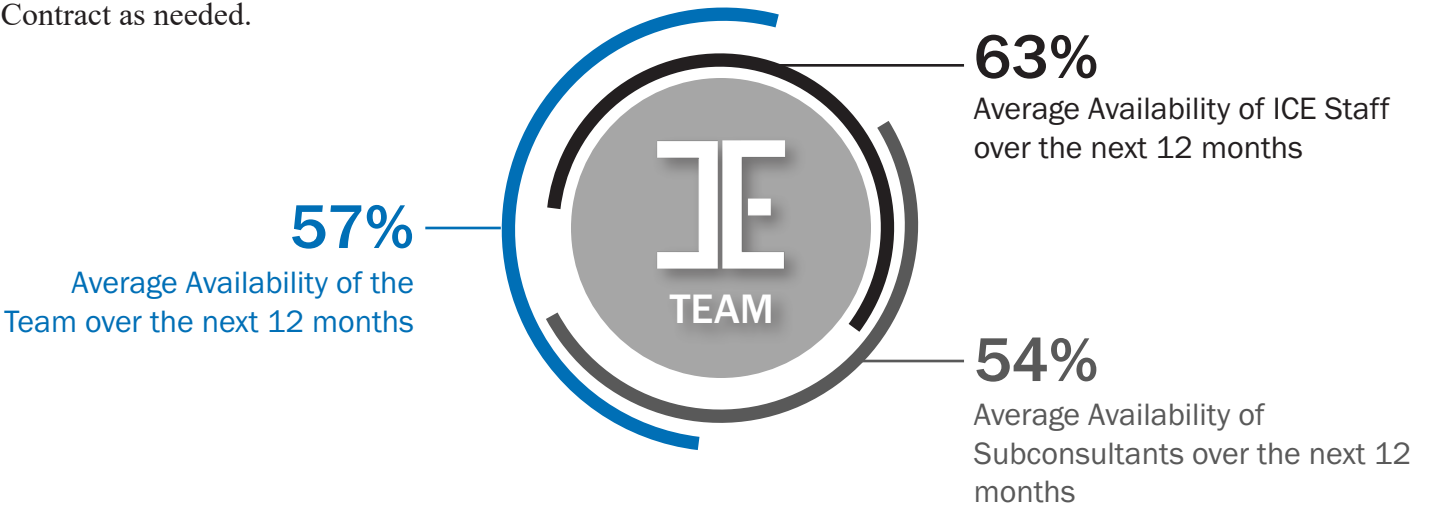
The graphical representation below exhibits ICE’s recent closeouts, current workload, and projected commitments for our Florida aviation clients. The backlog illustrates a decrease in our awarded projects over the next 12 months allowing our Team the necessary availability to successfully complete any task orders assigned from the City.



Some of the recent completed projects were the Airport Restaurant Design and Construction for the City of Ocala, CONRAC Facilities Refurbishment for Okaloosa County, and Hangar D Design for City of Sebastian. ICE is currently working on the Runway 18-36 Crack Repair, Seal, & Restripe for the Airport which is estimated to be completed in 2022.

AVAILABILITY

ICE is committed to prioritizing the City and continuing to serve as an extension of your staff. All team members were selected based on the current and projected workloads to ensure proper staffing for each discipline and will be dedicated to this Contract. We have the **immediate availability, resource depth, and capacity** required to expedite work in order to meet tight project and grant funding schedules. In addition to our proposed team, ICE has a deep pool of technical and support professionals working throughout Florida that can be allocated to this Contract as needed.





INFRCON-01

MGOODWIN

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

10/8/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 1000009384

Hub International Carolinas
1330 Lady Street
Columbia, SC 29201

CONTACT NAME: Michelle Goodwin

PHONE (A/C, No, Ext):

FAX (A/C, No):

E-MAIL ADDRESS: Michelle.Goodwin@hubinternational.com

INSURER(S) AFFORDING COVERAGE

NAIC #

INSURER A : Hartford Fire Insurance Company

19682

INSURER B : Hartford Ins Co of the Midwest

37478

INSURER C : Hartford Casualty Insurance Company

29424

INSURER D : Hartford Insurance Company of SE

38261

INSURER E : Travelers Casualty and Surety Company

19038

INSURER F :

INSURED

Infrastructure Consulting & Engineering, PLLC
& ICE of Carolinas PLLC
1021 Briargate Circle
Columbia, SC 29210

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PROJECT ☐ LOC ☐ OTHER:		22UUNOL5136	9/6/2021	9/6/2022	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY ☒ ANY AUTO OWNED AUTOS ONLY ☒ HIRED AUTOS ONLY ☐ SCHEDULED AUTOS ☒ NON-OWNED AUTOS ONLY		22UENOL5164	9/6/2021	9/6/2022	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
C	☒ UMBRELLA LIAB ☒ OCCUR ☒ EXCESS LIAB ☐ CLAIMS-MADE DED ☒ RETENTION \$ 10,000		22RHUOL5165	9/6/2021	9/6/2022	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	22WBOL6H1R	9/6/2021	9/6/2022	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
E	Prof Liability		107504031	9/6/2021	9/6/2022	Each Claim 1,000,000
E	Prof Liability		107504031	9/6/2021	9/6/2022	Aggregate 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

CANCELLATION

FOR INFORMATION ONLY

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2016/03)

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- Group 10 - Construction Engineering Inspection
- 10.1 - Roadway Construction Engineering Inspection
 - 10.3 - Construction Materials Inspection
 - 10.4 - Minor Bridge & Miscellaneous Structures CEI
 - 10.5.1 - Major Bridge CEI - Concrete
 - 10.5.2 - Major Bridge CEI - Steel

- Group 13 - Planning
- 13.5 - Subarea/Corridor Planning

- Group 14 - Architect

Your firm is now technically prequalified with the Department for Professional Services in the above referenced work types. The overhead audit has been accepted, and your firm may pursue projects in the referenced work types with fees of any dollar amount. This status shall be valid until June 30, 2022, for contracting purposes.

Approved Rates

Home/ Branch Overhead	Field Overhead	Facilities Capital Cost of Money	Premium Overtime	Reimburse Actual Expenses	Home Direct Expense	Field Direct Expense
172.41%	157.56%	0.274%	Reimbursed	No	11.60%	10.71%*

*Rent and utilities excluded from field office rate. These costs will be directly reimbursed on contracts that require the consultant to provide field office.

Per Title 23, U.S. Code 112, there are restrictions on sharing indirect cost rates. Refer to Code for additional information.

Should you have any questions, please feel free to contact me by email at carliayn.kell@dot.state.fl.us or by phone at 850-414-4597.

Sincerely,

Carliayn Kell
Professional Services
Qualification Administrator



Florida UCP DBE Directory

Number of Records Returned: 1

Selection Criteria:

Vendor : CAL-TECH TESTING INC

Vendor Name: CAL-TECH TESTING INC

DBE Certification: CERTIFIED

MBE Certification: Certified

DBA:

Former Name:

Business Description: LABORATORY TESTING SERVICES, UNDERGROUND MODIFICATIONS- SINKHOLE, SOIL STABILIZATION, CEMENT, CHEMICAL, POLYURTHANE AND VOID GROUTING

Mailing Address: 3309 SW SR-247
LAKE CITY, FL 32024-

Contact Name: ABBY STALVEY

Phone: (386) 755-3633

Fax: (386) 752-5456

Email: ASTALVEY@CALTECHTESTING.COM

ACDBE Status: N

Statewide Availability: Y

Certified NAICS

238990 All Other Specialty Trade Contractors
541380 Testing Laboratories

**EDUCATION:**

BS, Civil Engineering,
State University of New
York at Buffalo (1995)
AAS, Aerospace
Technology, Farmingdale
State College (1989)

EXPERIENCE:

Career: 1995 – Present
ICE: 2015 – Present

REGISTRATION:

Professional Engineer:
FL #57145
AL#38751-E
SC #20227
GA #PE041061

CERTIFICATIONS:

- FDOT Statewide Pavement Management Courses – Airfield Pavement Distress Repair
- Airfield Pavement Inspection Training
- University of Wisconsin Pavement Maintenance and Repair Certification

DOUG HAMBRECHT, PE**Project Manager**

Mr. Hambrecht has been providing consulting services for clients at both commercial service and general aviation airports since 1995. His extensive experience includes all aspects of aviation design and construction consulting services as well as an in-depth knowledge of FAA funding approval process, airport development alternatives and studies, and a unique perspective of knowing what it takes to get airport projects completed successfully from start to finish. His aviation design experience includes taxiway and runway rehabilitation, apron expansions, shade hangar and T-hangar design and improvements, perimeter fencing, parking lot reconfiguration, rental car facility development, fuel farm and security improvements, and entrance and access road improvements. Mr. Hambrecht is focused on quality and accuracy of the delivered product.

Mr. Hambrecht has served as the Project Manager on ICE's current aviation contract for the City of Ocala since 2017. He brings a thorough understanding of the City's preferences and established working relationships with Airport staff. This knowledge allows him to bring continuity and streamlined efficiencies to the next iteration of this Contract.

Current Aviation and Airport GC Contracts

City of Ocala	City of St. Petersburg	Citrus County
City of Everglades	Brevard County	Okaloosa County
City of Sebastian	Collier County	Volusia County

EXPERIENCE:

Taxiway "A" Rehabilitation, Ocala International Airport – Ocala, FL | Mr. Hambrecht served as the Project Manager for the construction of the rehabilitation of the airport's only parallel taxiway to the primary runway. It included the milling and overlay of the existing taxiway as well as the demolition of several taxiway connectors and the construction of several new taxiway connectors. Also included a re-alignment of portions of the existing taxiway as well as widening. New taxiway edge lights and taxiway signage were provided. Mr. Hambrecht responsibilities involved full construction administration to include FAA and FDOT reporting, reviewing and responding to submittals and RFIs, weekly reporting to the Airport Director, issuing change orders, change directives, and information notices, monitoring DBE participation, reviewing pay requests, producing the construction

safety and security plan for acceptance by the FAA, producing the Construction Management Plan, quality assurance test results and close out documentation.

Airfield Perimeter Fence, Ocala International Airport – Marion County, FL | This Project was part of the Capital Improvement Plan (CIP) for the City of Ocala and the Ocala International Airport. The purpose of this project was to eliminate digging under the existing fence by coyotes, gopher tortoises, and other wildlife by constructing a wildlife skirt. A 5' fence skirt was buried a minimum of 36" into the ground under the existing fence fabric and followed the 33,000' (roughly six miles) of existing fence. All swing gates were replaced with sliding gates, and a 6" concrete apron was poured under the gate to limit gaps. Mr. Hambrecht served as the Project Manager and oversaw the design, bidding, and construction phase services for this Project. In addition, FDOT and FAA grant packages, grant assurances, and closeouts were provided by ICE.

Doug Hambrecht, PE | Project Manager

GA Terminal Parking Lot, Ocala International Airport – City of Ocala, FL | As the Client Manager, Mr. Hambrecht was responsible for the design of a 144-space, 60,000-square-foot parking lot as the first phase of a proposed General Aviation terminal expansion program. Project included the undergrounding of overhead utilities, regional stormwater conveyance, landscaping, site lighting and prepared FAA grant applications.

Taxiway “N” Reconstruction, Daytona Beach International Airport – Daytona Beach, FL | ICE served as a subconsultant on this project which consisted of the total reconstruction of the existing 2.5-mile-long Taxiway “N” (and Taxiway “A”) with reconfigured edge of pavement geometry, paved shoulders widened from 25' to 30' in width, installation of a new storm water drainage system, and the installation of new LED taxiway edge lights. Mr. Hambrecht was responsible for overseeing the taxiway horizontal geometric design and layout and the development of the overall construction safety and phasing plans for the project.

West Apron Expansion, Destin-Fort Walton Beach Airport – Okaloosa County, FL | This project consisted of enlarging the West Apron to create five additional commercial aircraft ground loading apron spaces for A319/320 and other narrow body aircraft. The spaces also serve as remain overnight (RON) space for aircraft to base for early flights when all of the existing spaces with jet bridges are full or otherwise under exclusive lease by another airline. Mr. Hambrecht served as the Project Manager, worked with airport staff and the FAA to finalize apron dimensions, and developed detailed site development plans including airfield pavement structural design, geometrics, markings, lighting requirements, and other aircraft support infrastructure required (tie-downs, ground points, electrical or other infrastructure for ground power units, etc.). He was responsible for overseeing QA/QC, airfield design, production design (CADD), environmental services, and grant and bidding services as well as construction management during the construction phase.

Shade Hangar, Sebastian Municipal Airport – Sebastian, FL | Serving as Project Manager, Mr. Hambrecht provided performance specifications for a system meeting the airport’s desire to be competitively bid. He was also responsible for administering the bidding process. The City of Sebastian and the Sebastian Municipal Airport wanted shade hangars for the west side of the airport. These hangars consist of column(s) support to a roof truss system which stretches and supports a type of polypropylene fabric covering. ICE provided performance specifications for a system meeting the airport’s desire to be competitively bid. An in-depth design for the grading, drainage, and permitting of the site was required, as well as obtaining water management permits. The Airport desired a total of 14 shade hangars including 12 units for single engine type aircraft and two larger units for twin engine airplanes.

T-Hangar Replacement, Sarasota Bradenton International Airport – Sarasota, FL | Mr. Hambrecht served as the Project Manager responsible for overall project management including design, construction plans, and construction phase services for the replacement of several T-Hangar buildings, including J-4 and J-5. The clear door width for the set of buildings was 41.5' x 12'. Each building is a standard (stacked) configuration consisting of 14 units (28 total). Also included in this project were two larger hangar buildings (J-7 and J-8) to the south of Taxiway “F”. The clear door width for these buildings will be wider than J-4 and J-5 at 47.5' x 14'. Special, larger end units were designed on each of the two buildings with a clear door width of 51' x 16'. At this width, J-7 can accommodate 12 units and J-8 can accommodate 15, both with a nested configuration. Site work consisted of the removal of the asphalt pads under the Port-a-Port buildings, new drainage pipes, and the relocation of the taxilanes to line up with the new doors. On the buildings, manufactured by Erect-a-Tube, ridge vents were provided for air circulation, exterior building mounted LED lights were provided for taxilane illumination, and door types were bifold type.

Entrance Road and Parking Lots Reconfiguration Project, St. Pete-Clearwater International Airport – Clearwater, FL | Mr. Hambrecht served as a Senior Project Manager at ICE for the design assistance and phasing plans for the reconfiguration and realignment of the existing ¾-mile-long entrance road and the reconfiguration and expansion of the existing parking lots at PIE. The pending realignment of the major access roadway to the airport (Roosevelt Boulevard) and the explosive growth in number of passengers flying in and out of PIE were the driving forces behind this project. As a subconsultant, ICE performed the preliminary entrance roadway/parking lots geometric design and layout, quality control reviews, and developed the overall construction

Doug Hambrecht, PE | Project Manager

Southeast T-Hangars, Brooksville-Tampa Bay Regional Airport – Brooksville, FL | Mr. Hambrecht served as the Project Manager responsible for the layout and specifications package for the installation of four T-Hangar structures. The buildings consisted of a prefabricated metal building system with prefabricated roof vents, supplied by Dean Steel Buildings. Two of the larger T-Hangar buildings were a traditional layout with a door clear opening of 54 feet in width and 17 feet in height. Aircraft that could be stored in this hangar include the Piper PA-31 Navajo and Beechcraft King Air C90A. The smaller T-Hangar buildings were a nested layout. The doors have a clear opening of 44 feet in width and 14 feet in height. Aircraft that could be stored in this hangar include the Cessna 172R Skyhawk, Cessna 182 Skylane, Piper PA-23 Aztec, and Raytheon A36 Bonanza. Detailed layout drawings depicted NFPA requirements, wall dimensions, ADA requirements, doorways, floor sloping, spill protection, rainfall downspouts, site work, building mounted lighting, electrical requirements, grounding points, ventilation, locations of fire walls, and other owner and code requirements. Spaces for restrooms, storage, and conditioned office space were provided. Hydraulic and Bi-fold doors were provided for the different structures.

Boarding Bridges for A Gates, Destin-Fort Walton Beach Airport – Valparaiso, FL | Mr. Hambrecht served as the Project Manager for this project that consisted of new Apron Drive Passenger Boarding Bridges (PBBs) with the replacement of the 400hz/48VDC ground power units and the pre-conditioned air units. Bag lift elevators were included to move late bags from the apron the terminal floor. The bridge structure consisted of a ramped fixed tunnel (terminal doors at ground level designed), a rotating rotunda, telescoping bridge tunnel section, a cab with full controls for moving the bridge into position, vertical and horizontal drive system, baggage lift system, and provisions to re-mark the apron for the new parking positions associated with revised docking procedures than what is currently marked and the potential for larger mix of aircraft at these positions.

Runway Re-Marking, Sebastian Municipal Airport – Sebastian, FL | Mr. Hambrecht served as the Project Manager for the re-marking of non-precision Runway 5-23 and VFR Runway 10-28, GPS approach obstruction survey for Runway 5, and runway designation (numbering) calculations for magnetic declination of both runways. He also oversaw the design and construction for this project.

South Cargo Ramp Rehabilitation and Taxiway “N”, Cleveland Hopkins International Airport – Cleveland, OH | Mr. Hambrecht served as the Project Engineer for the development of plans and specifications for the concrete joint layout and marking plans for the reconstruction of the cargo ramp and a main taxiway access to Runway 6R-24L and exit for Runway 6L-24R. Project included the various concrete joint details, enhanced centerlines, hold position markings, vehicle service road markings, and surface painted hold position signs.

Terminal Renovation and Addition and Parking Garage, Kotoka International Airport – Accra, Ghana | As the Project Manager, he was responsible for the civil design of a major terminal expansion project, including baggage handling, ticketing, and a concourse expansion. The civil design for this project included a new four lane entrance road, terminal access roads, ramps to a new multi-story parking garage for 2,300 vehicles, overhead terminal wayfinding signage, roadway lighting, landscaping, storm drainage systems, pedestrian walkways and ramps, a 3x6 meter tunnel, and multiple roadway retaining walls.

Terminal Additions Phase 2, Destin-Fort Walton Beach Airport – Valparaiso, FL | Mr. Hambrecht was the Construction Project Manager for site work associated with the terminal concourse expansion and new airline gates. The work included 20,000 square feet of concrete apron reconstruction. Mr. Hambrecht worked closely with the airport and FAA in grant closeout and quarterly reporting.

East Side Additions, Fuel Farm Canopies and Security Improvements, Destin-Fort Walton Beach Airport – Valparaiso, FL | Hambrecht served as the Project Manager responsible for the design of metal roofs to provide shelter and safety for the loading and offloading areas of the airport fuel farm. The project consisted of structural steel coverings over the offloading and loading areas at the fuel farm and a third shelter over the emergency generator. These canopies were designed to provide shade and protection from the elements during fueling operations. The loading area consisted of a cantilever canopy (24'x40') and the offloading area for the larger tanker trucks was a gable type roof (62'x32') construction. All included standing seam roofs, steel “H” columns and cords, shop welded and field bolted connections, and concrete foundations. Three Pan, Tilt, Zoom cameras were

Doug Hambrecht, PE | Project Manager

added to the east side development. At the east terminal ramp gate, existing card readers were upgraded to dual height card readers (2 total) at both lanes of the entrance. Mr. Hambrecht provided cost estimating, change order evaluations and grant assistance.

Pavement Reconstruction Taxiway “T” and “H”, Jacksonville International Airport – Jacksonville, FL | Mr. Hambrecht served as the Quality Control Manager and was responsible for the design of two major taxiways at JIA. Taxiway “T”, a connector to Runway 13-31, was completely removed, shifted, and realigned as a part of the design effort. The determination of the proposed location required an analysis of the occupancy time on the runway, a comparison to other exit points, and service to cargo operations. The pavement section featured 16" of concrete over 8" of cement treated base. The design for Taxiway “H” was limited to concrete slab replacement and spall repair. Taxiway “H” serves as one of the main access points to the Terminal Apron and the General Aviation Area. Mr. Hambrecht also reviewed cost estimates for this project.

Northeast Corporate Center, Brooksville-Tampa Bay Regional Airport – Brooksville, FL | As the Quality Control Manager, Mr. Hambrecht provided detailed, independent review of estimated project costs. This project included designing a 205,000-square-foot concrete apron for the future development of up to 10 hangars for medium to large corporate aircraft. The apron and connector taxiway were designed for ADG II aircraft, while a taxiway extension to the facility was designed for larger, Group IV aircraft. Major site elements included 0.5 miles of access roadway, area lighting, airfield NAVAIDS, stormwater piping, and dry pond construction. Subsurface utilities included a water main extension, gravity sewer loop, lift station, and underground power service. Since this project is in the approach to both Runways 27 and 21, significant analysis of part 77 surfaces was required as well as considerations for runway extensions and future RPZs.

Parcel 71 Development, Daytona Beach International Airport – Daytona Beach, FL | As the Quality Control Manager, Mr. Hambrecht was responsible for the design of a 70,000-square-foot asphalt apron for future corporate hangar development. The project included two connector taxiways, airfield electrical, utility infrastructure, access roads, perimeter access control, roadway lighting, construction phasing, and large concrete culvert installation. Permitting efforts included stormwater, floodplain compensation, sewer, water, County Development Order, and driveway connection.

7L-25R Runway Reconstruction, Daytona Beach International Airport – Daytona Beach, FL | Mr. Hambrecht served as the Project Manager responsible for the design of the runway rehabilitation and reconstruction. This is the main runway for Daytona Beach with a length of 10,500'. Reconstruction was necessary for the 2,500' x 50' keel section to the 7L approach where significant pavement distresses occurred. Improvements to the keel involved replacing the asphalt with 15" of Portland Cement Concrete. Detailed grading plans provided milled surface contours and finished grades. Phasing plans accounted for the airport's different needs to provide multiple runways for the flight schools and Embry Riddle's use as well as sufficient length and wind coverage for the airlines. This was provided by incorporating multiple phases of displaced thresholds on 7L-25R and minimizing work zones on the 16-34, the intersecting runway.

Parcel 61 T-Hangars, Daytona Beach International Airport – Daytona Beach, FL | Mr. Hambrecht served as the Project Manager responsible for the design of an 11 unit stacked T-Hangar configuration. The project also included custom hangar specifications, design of stormwater systems, vehicular access improvements, and an aircraft taxiway to service the units.

18L-36R Runway Rehabilitation, Cecil Airport – Jacksonville, FL | Mr. Hambrecht served as the Project Manager responsible for the design of the asphalt rehabilitation and concrete joint repair of Cecil Field's 12,500' runway. Approximately 7,000' of the center portion of the runway is bituminous asphalt, with roughly 5,000' on the south end and 300' on the north end consisting of Portland Cement Concrete (PCC). This project included milling and resurfacing plans, detailed phasing plans, marking plans, and rehabilitation of all the connector Taxiways “A2”, “A3”, and “B”. Drainage design included the evaluation of the infield drainage system to replace pipes with lower maintenance ditches.

Exit Taxiways “C4” and “D”, Palm Beach International Airport – West Palm Beach, FL | Mr. Hambrecht served as the Project Engineer responsible for the design of angled exit taxiways in order to decrease runway

Doug Hambrecht, PE | Project Manager

occupancy times and improve safety for PBI's main Runway 10L-28R. Plans included electrical design, phasing, safety, demolition, grading and drainage, permitting, and marking. Design efforts included a pavement design to accommodate 847,000-pound aircraft with shoulders and pavement designed for Group V.

South Taxilane Rehabilitation, Palm Beach International Airport – West Palm Beach, FL | Mr. Hambrecht served as the Project Engineer responsible for the design of a 1,600-foot Group III Taxilane. The existing taxilane was removed, strengthened and reconfigured. Edge lighting and guide signs were also provided.

9R-27L Runway Rehabilitation, Cecil Airport – Jacksonville, FL | Mr. Hambrecht served as the Project Engineer responsible for the design of the concrete and asphalt rehabilitation of the 8,000-foot runway, which included milling and resurfacing plans, detailed phasing plans, marking plans, concrete repair, and rehabilitation of all the connector taxiways. Also responsible for videotaping the drainage pipes and identified pipe repair areas under runway and FAA and tower coordination.

Hangar Development, Tallahassee International Airport – Tallahassee, FL | As the Lead Engineer for this project, Mr. Hambrecht was responsible for the civil design of a 25,000-square-foot hangar project at Tallahassee International Airport. Services included were parking design, sidewalks, utilities, landscaping, irrigation, apron access, drainage, site grading, permitting, fencing and gates.

Airfield Markings Improvements, Palm Beach International Airport – West Palm Beach, FL and North Palm Beach County General Aviation Airport – Palm Beach Gardens, FL | As a Project Engineer for this project, Mr. Hambrecht was responsible for the design of updated threshold markings, new enhanced centerline markings and runway hold position lines, and re-marked runway for non-precision approach.

14-32 Runway Extension, Jacksonville Executive at Craig Airport – Jacksonville, FL | Mr. Hambrecht served as the Project Engineer responsible for the preparation of preliminary plans for a 1,600-foot extension of Runway 32 and the parallel taxiway and prepared detailed cost estimates, engineer's reports, pavement design, drainage investigation, site permit requirements, NAVAID (MALSR, glideslope, threshold lights, and PAPI) relocation, and assisted with wetland mitigation.

General Consulting Contract/Multiple Projects, Tallahassee International Airport – Tallahassee, FL | Mr. Hambrecht served as the Project Manager and was responsible for the planning, cost estimating, FAA and FDOT coordination, production of plans, specifications, reports, and construction management and construction inspection for numerous airfield projects. These projects include the rehabilitation of the majority of the airport's taxiways, new taxiway construction (3), the addition of paved shoulders and edge light replacement to Runway 18-36, a General Aviation Central Apron (6 Acre of new pavement), Cargo Apron (20 Acre of new Pavement), Passenger Boarding Bridge rehabilitation (2 new, 6 rehab), and 8 miles of perimeter road. Had a significant involvement in terminal work and several airfield and parking studies.

Rental Car Facilities, Pensacola International Airport – Pensacola, FL | Mr. Hambrecht served as the Project Manager and Lead Engineer responsible for the civil design of a 21-acre site involving the site design for rental car fuel islands, maintenance and office buildings, and automated wash buildings. Design/oversight responsibilities included water, sewer, grading, drainage, pavement, roadway design, parking, site lighting, security, landscaping, cost estimating, schedules, subcontractors, and plan production.

PAPI Installation, Destin-Fort Walton Beach Airport – Valparaiso, FL | As the Construction Manager for this project, Mr. Hambrecht was responsible for the replacement of the VASI system with a 4 box Precision Approach Path Indicator system.

Apron Lighting and Vault Replacement, Destin-Fort Walton Beach Airport – Valparaiso, FL | Mr. Hambrecht served as the Project Manager responsible for the design and construction of 11 new high mast apron lights. Relocation of the voltage-controlled airfield system to a pre-cast enclosure with new home runs to lighting circuit.

Residential Sound Insulation Project, Tallahassee International Airport – Tallahassee, FL | Mr. Hambrecht served as the Construction Manager responsible for the sound insulation upgrades to homes under the 36 departure/18 approach. Project included windows, doors, air conditioning and duct work, and other miscellaneous improvements.

Doug Hambrecht, PE | Project Manager

Taxiway “H”, Bob Sikes Airport – Crestview, FL | Mr. Hambrecht served as the Project Manager responsible for the design and construction of a taxiway under a grant from Enterprise Florida. This taxiway serves C-130 aircraft for deliveries of technical parts to Manufacturing Technologies Inc., located adjacent to airport property.

Cargo Facility, Destin-Fort Walton Beach Airport – Valparaiso, FL | Mr. Hambrecht served as the Construction Manager responsible for a new 12,000-square-foot cargo building, asphalt parking, concrete tug road/ GSE area, and a 75,000-square-foot aircraft apron.

Rental Car Development Project, Destin-Fort Walton Beach Airport – Valparaiso, FL | Mr. Hambrecht served as the Lead Engineer and Project Manager responsible for the design and construction of a 40-acre development project. Project was designed for five rental car agencies and includes the design of separate facilities such as rental car offices, automated wash facilities, vehicle maintenance bays, and fuel distribution islands. Engineering design work consisted of site grading, storm drainage, SR 85 turn lanes, an entrance road, an aviation fuel farm of (130,000 gallons), rental car ready/return lots, rental car overflow lots for 800 vehicles, signage and pavement marking.

Airfield Perimeter Fence, Tallahassee International Airport – Tallahassee, FL | Mr. Hambrecht served as the Project Manager and Lead Engineer responsible for the design and construction of a new 10' high Wildlife Fence with “V” arm, triple strand barbed wire around the entire perimeter of the Airport. The total length of the project and length of new fence was 9.65 miles. A concrete footer was placed under the fence as a value engineered approved alternative to chain link fabric which prevented any digging by animals. Tight restrictions were placed in the specifications to not permit any gaps in the fence or between gates greater than 2" maximum width. All gates were upgraded to 10' aluminum.

Runway 9-27 and Associated Taxiways Electrical Improvements, Tallahassee International Airport – Tallahassee, FL | As the Project Manager, Mr. Hambrecht was responsible for the design and the construction of the replacement of all Runway lighting fixtures, replacement of airfield lighting cable, installation of runway guard lights for all runway-taxiway intersections and modifications of existing taxiway lead-on and lead-off centerline lights. Also included were electrical vault building constant current regulators, upgrade of the primary power distribution system from 240 volts to 480 volts, airfield lighting control system (ALCS) additions, installation of a new stand-by generator, and necessary modifications for a complete and functioning system including upgrades to the heating, ventilation, and air conditioning (HVAC) equipment.

GA Terminal, Destin-Fort Walton Beach Airport – Valparaiso, FL | Mr. Hambrecht served as the Project Manager/Lead Engineer responsible for the site work for a new General Aviation Terminal Building design to include parking lot design, apron improvements, utility relocation, demolition of existing buildings, drainage design, and permitting. He also served as overall Construction Manager during construction.

Taxilanes - Phase II, North Palm Beach County General Aviation Airport – Palm Beach Gardens, FL | Mr. Hambrecht served as the Project Manager responsible for the design of two ADG I Taxilanes, one ADG II Taxilane, and a concrete fueling apron for future T-Hangar construction.

T-Hangars, Brooksville-Tampa Bay Regional Airport – Brooksville, FL | Mr. Hambrecht served as the Project Manager/Engineer for the design of two T-Hangars consisting of a 14-unit and a 15-unit structure.

Airport Access Road, Sebastian Municipal Airport – Sebastian, FL | Mr. Hambrecht served as the Project Engineer responsible for the design of a western and eastern access road to the airport.

Airfield Perimeter Road, Palm Beach International Airport – West Palm Beach, FL | Mr. Hambrecht served as the Project Engineer responsible for the design of an airfield perimeter road.

City of Zephyrhills, FL | Mr. Hambrecht served as the Project Manager responsible for numerous projects including the Greenslope Drive Extension Project, the addition of City sidewalks for Greenslope, and the design of the Streetscape Project involving brick paver sidewalks, landscaping, parking lots and decorative lighting. Also, served as Construction Manager for all projects.

Doug Hambrecht, PE | Project Manager

U.S. 90 – Leon County, FL | Mr. Hambrecht served as the Project Engineer responsible for the design of storm drainage systems for a 4-mile multilane roadway improvement project.

Terminal Development Project, Tyler Pounds Field – Tyler, TX | Mr. Hambrecht served as the Project Engineer responsible for the design portion of a new aircraft apron, access road, loop road, and parking lots. Project also involved perimeter fencing, tollbooths, and sanitary sewer lines.

Riverbanks Zoo – Columbia, SC | Mr. Hambrecht served as the Lead Engineer and Project Manager responsible for \$900,000 design of new alignment and also managed construction. Project included two creek crossings, numerous permits (environmental, state, utility, local) and extensive rock blasting and excavation.

U.S. Route 78 – Charleston, SC | Mr. Hambrecht served as the Project Engineer responsible for developing traffic control plans/construction sequencing for the US Route 78/I-26 interchange improvements project and the Phase II project which included the extension of U.S. 78 to U.S. 52. The project involved the widening of U.S. 78 from 2 to 5 lanes and 2 major intersections involving ramps, bridges, and interstate widening.

Palmetto Parkway, Ladson Industrial Park – Charleston County, SC | Mr. Hambrecht served as the Design Engineer responsible for roadway drainage design for a 2-mile two-lane roadway on new location.

Greenville Western Corridor – Greenville, SC | Mr. Hambrecht served as the Project Engineer responsible for phasing plans for the widening/relocation of a major roadway in a downtown environment.

S.C. 161 Improvements – Rock Hill, SC | Mr. Hambrecht served as the Design Engineer responsible for the preliminary geometry, drainage, and superelevation design for a four-lane urban section with curb and gutter.

Lexington County, SC | Mr. Hambrecht served as the Project Manager responsible for a \$3.8 million paving and resurfacing program. Duties included horizontal and vertical alignments, pavement design, road design, drainage design, public meetings, preparation of construction documents, coordination of right-of-way acquisition, construction administration and inspection. Over the course of three years, 22 dirt roads were designed for a paved surface.

Richland County, SC | Mr. Hambrecht served as the Project Manager responsible for a \$6 million paving and resurfacing program. The program included numerous roadway and drainage improvement projects. The tasks involved all aspects of design from PD&E to final plans, traffic analysis, permitting, construction administration and inspection. Total project duration was four years.

Charleston County, SC | Mr. Hambrecht served as the Project Manager responsible for the design of 6 roadway projects involving the paving of dirt roads.

Town of Irmo, SC | Mr. Hambrecht served as the Project Manager responsible for numerous roadway and sidewalk improvement projects.

U.S. Silica Sand Inc. – Gaston, SC | Mr. Hambrecht served as the Project Manager responsible for a one-mile road relocation project involving roadway design and the evaluation of several tunnel options to service the mining operation.

Charleston County, SC | Mr. Hambrecht served as the Project Manager responsible for 16-intersection improvement projects throughout the County. The design tasks included traffic feasibility studies and schematic interchange layouts.

Berkeley County, SC | Mr. Hambrecht served as the Project Manager responsible for 10 road paving projects and County resurfacing projects.

United Parcel Service Bridge over SC Hwy 302, Columbia Metropolitan Airport – Columbia, SC | Field Construction Engineer responsible for the layout and construction of a steel girder bridge and retaining walls over SC Hwy 302. The existing vertical grade of S.C. Route 302 was lowered by 28 feet to accommodate the construction of a 110-foot-long, single-span bridge structure interfacing between the new air cargo apron and the new UPS sorting facility on the other side of the state road. The also project involved the construction of two 1,500' tapered retaining walls that were 28' high at the abutments.

**EDUCATION:**

MS, Civil Engineering
(Structures), North
Carolina State University
(1984) | BS, Civil
Engineering, North
Carolina State University
(1981)

EXPERIENCE:

Career: 1982 – Present
ICE: 2013 – Present

REGISTRATION:

Professional Engineer:
FL #37487
GA #020111
MI #6201044691
NC #013088
PA #082846
SC #10535
TN #18823
VA #0402032754
WV #016981

ORGANIZATIONS:

ASCE Member (since
1979)
Certified Safety Bridge
Inspector by NHI / FHWA

ELHAM FARZAM, PE**Principal-in-Charge, Pavement Design**

Elham has over 36 years of hands-on experience in heavy-civil projects. He has had the honor to have worked on a number of challenging assignments in the surface and air transportation consulting field assisting federal, state and local authorities in the delivery of a wide variety of projects and programs involving planning, designing and construction.

EXPERIENCE

Henry E. Rohlsen Airport – St. Croix, USVI | Elham served as Project Director on this project that included the update of Airport Master Plan/ALP, update of Environmental Assessment Document and design and construction of 2,400-foot runway extension (to 10,001 feet) of Runway 9-27, and a new air traffic control tower, at an estimated total project cost of \$17 million.

Memphis International Airport – Memphis, TN | Elham was the Project Director for this project that included design of the extensions to Taxiways “A” and “S” with the Memphis-Shelby County Airport Authority. The project consisted of approximately 112,000 cubic yards of unclassified excavation, 130,000 square yards of current treated base, 30,000 tons of bituminous surface/base course, and 77,000 square yards of 17-inch PCC pavement. The project was constructed in seven distinctive phases (including sub-phases in 5 of the 7 phases) in an effort to minimize the impact to aircraft operations. The project also included several FAA navigational aids (R/W 36R localizer, R/W 9 RVR, LLWAS, and R/W 18L MALSR) to be relocated.

Fort Wayne International Airport, Fort Wayne, Indiana

- Loop Access Roadway Program: Project Director for major landside development including short term and long term, rental and employee parking areas, loop access road, signage and graphics, landscaping, and utilities relocation.

- Terminal Modernization Program: Project Director for Construction phase for major terminal building renovation and expansion project including new bag claim wing, new ticketing wing, new concession core area, new upper concourse hold areas and gates, new regional hold area, concourse and gates, new signage and graphics including FIDS/BIDS. Project also included separate bid packages for loading bridges and furnishings.

Greenville-Spartanburg International Airport, Greer, South Carolina | Serving as the Project Director, Mr. Farzam was responsible for the design and construction of a \$54 Million runway extension and strengthening project including a 3,400 foot runway extension involving over seven million cubic yards of earthwork, paving, lighting, a complicated NAVAIDS relocation program, and a 50,000+ square yard apron for two B747 aircrafts.

Columbia Metropolitan Airport, Columbia, South Carolina

- UPS East Air Freight Facility - Principal-In-Charge for the design and construction phases of the East Air Freight Facility as part of the new UPS Southeastern Hub facility. Project included construction of 180,000 sy of air carrier strength P.C.C. paved apron, aircraft deicing fluid collection, containment and disposal facilities, stormwater detention and sediment control facilities, relocation and widening of 3,200 ft. of a state road, a 50-foot wide bridge with a span of 106 ft. and 4,500 ft. of a 8 in. water main.

Elham Faram, PE | Principal-in-Charge, Pavement Design

- Strengthening Extension of Runway 5-23 - Construction Project Manager for strengthening extension of Runway 5-23. The project includes a 3,000-foot extension of R/W 5-23 with permanent 1,000-foot relocation of R/W 23 threshold and 2,000 feet of extension of R/W 5.

McGhee Tyson Airport, Knoxville, Tennessee | Client Project Manager associated with Design and Construction of the following projects:

- Air Cargo Facilities - Design and Construction Project Manager for \$8.3 Million project consisting of 600,000 cubic yards of excavations, 48,000 square yards of 15" P.C.C. pavement, emergency access road and various improvements to fences and gates.
- Runway 23L Safety Overrun (AIP-08) - Design and Construction Project Manager for final design and construction of a 1,000-foot extension to serve as a safety overrun area at the end of Runway 23L. This \$750,000 improvement consisted of approximately 200,000 cubic yards of earthwork, drainage improvement, construction of an emergency perimeter access road, and installation of new airport security fencing including a 28 foot automatic electric gate.
- Replacement of Airport Guidance Signs (AIP-08) - Design and Construction Project Manager for replacement of approximately 100 L-829 signs with L-858, single or double face signs, including mandatory and information signs and installation of a 20kw regulator.
- Site Preparation for Runway 5R Extension (AIP-09) - Design and Construction Project Manager for construction of a 3,000-foot extension to increase the length of R/W 5R-23L to 9,000 feet. This \$10.6 million project included construction of embankment utilizing 4,300,000 cubic yards of earth and rockfill, drainage improvements, utility relocations, and TNANG entrance road relocation to accommodate the runway extension.
- Paving and Airfield Lighting for Runway 5R-23L (AIP-10) - Design and Construction Project Manager for pavement strengthening of the existing Runway 5R-23L and construction of new pavement and lighting system for Runway 5R extension. This \$3.8 million project also included rehabilitation of the existing airfield lighting, pavement grooving, and installation of shoulder underdrain.
- Construction of Sedimentation Basin/Dam (AIP-12) - Design and Construction Project Manager for construction of a sediment basin with sediment storage volume of 7 acre-feet, including a 1,500-foot long, 32-foot high earthfill dam and riser structure. The construction also includes excavation of 300,000 cubic yards of earth and rock.
- Taxiway "B" (North Reconstruction) - Principal-in-Charge for reconstruction of approximately 1,600 feet of rigid pavement section for Taxiway "B" (North), and the addition of rigid pavement fillets and lead in taper sections for Taxiway "G-6" and "G-7".

Myrtle Beach International Airport/Air Force Base, Myrtle Beach, South Carolina

- Strengthening of Runway 17-35 – Elham served as the Design and Construction Project Manager for this project that included nighttime asphaltic overlay of center 7,500-foot of runway, reconstruction of two 1,000-foot concrete touch down areas and rehabilitation of airfield lighting system.

Shaw Air Force Base, Sumter, South Carolina

- Replacement of Runway 4L-22R - As the Design and Construction Project Manager, Elham oversaw the replacement of an existing runway with a new 10,000-foot concrete runway, including earthwork, major drainage improvement, new airfield lighting system and NAVAIDS, and aircraft arresting systems (BAK-12/14).

McEntire ANG Base, Eastover, South Carolina

Elham Faram, PE | Principal-in-Charge, Pavement Design

Elham served as the Project Director for evaluation and repair/rehabilitation of a base-wide airfield pavement project in excess of \$5 million. The work involved development of pavement evaluation program, NDI/PCI work, as well as preparation of construction documents for a \$3 million worth of pavement repair and strengthening project.

DeKalb Peachtree Airport - Atlanta, GA | Elham was the Project Manager and directed the Firm's involvement with the design and construction of the "Airfield Pavement Improvements" Project at this busy General Aviation Airport consisting of the following work elements:

- Rehabilitation of Runway 2L-20R;
- Rehabilitation of Runway 2R-20L;
- Construction of an unpaved runway safety area for Runway 20R;
- Construction of asphaltic holding area/pad for Runway 20R;
- Construction of concrete holding area/pad for Runway 20L; and
- Rehabilitation and reconstruction of Clairmont taxilane/ramp and west ramp.

Knoxville Downtown Island Airport - Knoxville, TN | Elham was the Project Manager/Principal-in-Charge of the following projects:

- Rehabilitation of Runway 8/26 (AIP-03) – Rehabilitation of Runway 8/26 including asphaltic overlay of 40,000 square yards, single surface treatment for control of reflective cracking.
- Rehabilitation of Parallel Taxiway (AIP-04) – Rehabilitation of the 3,800-foot parallel taxiway, medium intensity taxiway lighting system, and the medium intensity lighting system for Runway 8-26.

Lancaster County Airport, South Carolina

- 3,800-Foot Extension of Parallel Taxiway - Principal-in-Charge. The project includes 200,000 cubic yards of embankment, crushed aggregate base course, P-401 bituminous surface course, miscellaneous drainage structures and drainage pipe, and new medium intensity taxiway lighting system.

Stanly County Airport, North Carolina

- Extension and Strengthening of Runway 4-22 – Elham served as Design Project Manager for an 800-foot runway extension and safety area widening, as well as taxiway turnarounds at both runway ends, and a new aircraft apron for North Carolina Air National Guard C-130 aircrafts.

**EDUCATION:**

BS, Civil Engineering
(Transportation), Louisiana
Tech University (1989)

EXPERIENCE:

Career: 1989 – Present
ICE: 2018 – Present

REGISTRATION:

Professional Engineer:
LA #PE.0029113
SC #16562

PROFESSIONAL**AFFILIATIONS:**

Louisiana Engineering
Society | National Society
of Professional Engineers

ORGANIZATIONS:

Louisiana Airport
Managers & Associates

MICHAEL HIXSON, PE**Quality Control**

Mr. Hixson has many years in airport related projects as designer, engineer, project manager, and business developer. He provides site investigations, preliminary and final design for airport improvement projects, and applications for federal assistance. He has been involved at every level, from conception to completion, on many projects at airports in multiple states. He also provides on-site observation of construction to determine if the work done is in accordance with plans and specifications.

EXPERIENCE:

Aviation Engineering/Architecture Services for Airport Development Projects, Livingston Executive Airport – Livingston Parish, LA | Mr. Hixson serves as the Project Manager for this project which includes providing program development services for the justification, design, and construction of a new airport in Livingston Parish, Louisiana known as the proposed Livingston Executive Airport. His responsibilities include the comprehensive management of the project, client coordination, QA/QC of plans and specs, and the overall visioning for the airport development. This project includes a Justification Study for the proposed airport to enter the FAA's National Plan of Integrated Airport Systems (NPIAS), a feasibility study and preliminary engineering report for the proposed airport site airport master plan update; website development, community engagement and stakeholder engagement meetings; environmental analysis and permitting; architectural project visioning and conceptual design (including 3D renderings and fly throughs of the recommended airport concept); architectural preliminary building facilities design; engineering airport development and design; and Benefit-Cost Analysis (BCA). It is anticipated that the airport will be constructed and open within the next five years.

Airfield Pavement Rehabilitation, False River Regional Airport – New

Roads, LA | This Airfield Pavement Rehabilitation project consists of full-depth reconstruction, milling, and overlay on Runway 18-36 and connector taxiways; Runway 18-36 full-depth repairs; parallel taxiway sealcoat; and pavement markings. Mr. Hixson is currently serving as the Project Manager, and his responsibilities include overseeing construction engineering services, responding to RFIs, unforeseen conditions remediation, and supplemental funding requests. While with a previous employer, Mr. Hixson also served as Senior Project Manager for this project and was responsible for overseeing the design services.

Master Services Agreement (2018-2021), False River Regional Airport – New Roads, LA | Mr. Hixson is currently serving as the Project Manager responsible for client management, securing funding from LaDOTD and FAA, oversight of design and bidding, and construction administration support. Projects completed to date include Automated Weather Observing System (AWOS), Pavement Defects Investigation, Sealcoat/Rejuvenator, Drainage Rehabilitation, Pavement Rehabilitation, Apron Overlay, Detailed Airport Layout Plan/Mini Master Plan, Airfield Pavement Rehabilitation (Design), and Localizer Equipment Shelter and DME. Current project includes Airfield Pavement Rehabilitation (Construction) and Drainage Rehabilitation and Hangar Development Phase I.

Master Services Agreement (2018-2023), DeQuincy Industrial Airpark – DeQuincy, LA | Mr. Hixson currently serves as the Project Manager and is responsible for client management, securing of funding from LaDOTD and FAA, oversight of bidding, and construction administration support. Projects completed to date include Parallel Taxiway Extension, Automated Weather Observing System (AWOS), Fuel Farm, Aircraft Hangar, Access Road and Gate Improvements, Lighting Rehabilitation, Runway and Mid-Apron Crack Seal and Sealcoat, Perimeter Fencing (Design), Upgraded PAPIs to LED and Taxiway Centerline and Edge Reflectors. Current projects include Perimeter Fencing – Phases II and III (Construction).

Michael Hixson, PE | Quality Control

Master Services Agreement, Allen Parish Airport – Oakdale, LA | Mr. Hixson has served as Project Manager on various projects at the Allen Parish Airport since 2013. As the Project Manager, his duties and responsibilities include client management, securing of funding from LaDOTD and FAA, oversight of bidding, and construction administration support. The projects that Mr. Hixson has completed to date include Runway 18 N. Drainage Rehabilitation, Airfield Pavement Sealcoat and Remarking, and Obstruction Removal – Environmental Services. Current project includes Obstruction Removal Design and Construction.

Runway 36 RPZ Obstruction Removal, Allen Parish Airport – Oakdale, LA | Mr. Hixson is serving as the Project Manager overseeing all phases of this contract. This project consists of the removal of existing forested areas along the Allen Parish Airport in order to accommodate required sight planes and minimize long-term maintenance. A project study was previously identified, and a wetland delineation conducted to identify any wetland and other waters of the US (WOUS). The project scope consists of the removal of trees and brush areas considered obstruction to Runway 36 end.

Runway 14-32 Extension Engineering and Environmental Services, Alexandria International Airport – Alexandria, LA | Mr. Hixson served as Project Manager providing assistance for the Runway 14-32 extension project. He was responsible for preliminary design, schematic design, overall project coordination between consultants for Runway, and Taxiway design. The scope of work as part of this contract included project scoping, scheduling, and data collection; perform initial site visits; and assist with land acquisition. Other services included performing an environmental assessment, including permitting and mitigation; provide NAVAIDS coordination and approach obstruction evaluation; develop a special hydrological analysis and stormwater pollution prevention plan; and prepare a preliminary engineering report.

Runway 18/36 and 13/31 Intersection Rehabilitation, Hammond Northshore Regional Airport – Hammond, LA | Mr. Hixson served as the Project Manager and his responsibilities included client management, funding procurement, production staff oversight for Pavement Evaluations, Airfield Design, and Grant Administration, as well as sub management, and financial management. This project consisted of providing preliminary design, final design, bidding, construction administration, and resident project representative services for reconstructing the PCC pavement within and on all sides of the Runway 18-36/13-31 intersection. The existing PCC pavement on Runway 13-31 between the bituminous sections (approximately 1,550') was removed and reconstructed. The pavement width was reduced from 150' to only 100' to match the rest of the runway which had already been reconstructed in previous projects. Reduction of the pavement width included removal of 25' of concrete shoulders on both sides of Runway 13-31. This reconstruction encompassed all of the remaining PCC pavement on Runway 13-31.

Multi-Year Contract, South Lafourche Leonard Miller, Jr. Airport – Galliano, LA | Mr. Hixson served as the Project Manager for this project and his responsibilities included developing and implementing an aggressive airport expansion program necessary to accommodate larger aircraft used by tenants of nearby Port Fourchon. The short-term goal was to extend, widen, and strengthen the existing runway; construct a full parallel taxiway; and install airfield lighting, signage, and NAVAIDS. Projects completed to date include extending and widening the existing 3,800-foot-by-75-foot runway to 6,500-foot-by-100-foot, AWOS installation, airfield lighting and signage, construction of a new stub-taxiway, runway strengthening, safety area improvements, instrument landing system and perimeter fencing, taxiway connector, and parallel taxiway.

Taxiway “A” North Paving Project, South Lafourche Leonard Miller, Jr. Airport – Galliano, LA | Mr. Hixson, Project Manager, was responsible for client management, funding procurement, production staff oversight for Pavement Evaluations, Airfield Pavement Design, Airfield Design, and Grant Administration, as well as sub management, and financial management. The consultant provided design, environmental, grant, bidding, and construction administration services for the Taxiway “A” North paving project. The project was bid with two scenarios: Bid Scenario A (awarded) included an asphalt pavement section; and bid scenario B, a Portland Cement Concrete (PCC) pavement section. For each scenario, the base bid and alternate bid were included. The base bid provided a partial parallel taxiway, and the alternate bid provided a full length parallel taxiway. The Base Bid Scenario A included construction of approximately 2,900 linear feet of a new asphalt

Michael Hixson, PE | Quality Control

parallel taxiway from the approach end of Runway 18 to the existing apron connector taxiway and 1,200 linear feet of new connector taxiways. The taxiway and connectors were designed and built to accommodate service for Aircraft Approach Category C-II.

Runway 13/31 Overlay and Taxiway B Reconstruction, Baton Rouge Metropolitan Airport – Baton Rouge, LA | As Project Manager, Mr. Hixson's responsibilities included coordination between the consultant and all predesign and design subconsultants, design oversight, plan review, cost estimating and construction site visits during the Construction Administration phase of the project. During the design phase, he was responsible for development of construction phasing, which was necessary due to project impacting all three runways and majority of taxiways.

Pavement Defects Investigation, False River Regional Airport – New Roads, LA | Mr. Hixson served as Project Manager and was responsible for overseeing all aspects of the project. The consultant was retained to evaluate a runway pavement issue. The issue appeared to be a base failure and the consultant coordinated a subsurface exploration to determine the cause and limits of failure.

Pavement Condition Index (PCI) Study – LA | As Project Manager, Mr. Hixson was responsible for client management, provided coordination and support for the PCI team, and provided close out report briefing to the owner. The consultant evaluated and inspected airport runways, taxiways, and aprons through visual inspection in accordance with the American Society for Testing and Materials (ASTM) manual D5340-98, to determine the pavement condition index (PCI) number for the state's 48 National Plan of Integrated Airports System (NPIAS) airports. The consultant investigated existing conditions and prepared a detailed report that included the PCI number of each airport, an overall PCI value of the airports surveyed, and a summary of the surfaces inspected at each airport.

Airfield Pavement Crack Sealing and Remarketing, False River Regional Airport – New Roads, LA | Mr. Hixson, Project Manager, was responsible for client management, and oversight of design, bidding, and construction administration. The consultant provided engineering services for airfield pavement crack sealing and replacement of pavement markings. Services included grant administration, design, bidding-phase support, and construction administration.

Runway 18-36 Pavement Sealcoat and Remarketing, South Lafourche Leonard Miller, Jr. Airport – Galliano, LA | As Project Manager, Mr. Hixson was responsible for client management, grant administration, and oversight of design, bidding, and construction administration. The consultant provided engineering services for the Runway 18-36 pavement sealcoat and remarketing. Services included design, bidding-phase support, and construction administration. The project consisted of application of coal-tar rejuvenator/sealer to, and remarketing of, Runway 18-36, heliport taxiway asphalt pavement, and apron and Taxiways A, A1, and A2.

Drainage Rehabilitation, False River Regional Airport – New Roads, LA | Mr. Hixson served as Project Manager and was responsible for grant management, QA review, bidding phase support, and construction site visits for an isolated pavement repair on a general aviation runway. The consultant provided all required professional services to design, bid/solicit proposals, and administer construction for drainage rehabilitation between Runway 18/36 and the parallel taxiway. The project was necessary to improve safety and provide a long-term solution to drainage and erosion issues around the infield inlets.

Overlay Runway 13/31 and Taxiway "B" Reconstruction, Baton Rouge Metropolitan Airport – Baton Rouge, LA | Mr. Hixson, Project Manager, was responsible for coordination between the consultant and all predesign and design subconsultants, design oversight, plan reviews, cost estimating and construction site visits during the Construction Administration phase of the project. During the design phase, he was responsible for development of construction phasing, which was necessary due to project impacting all three runways and majority of taxiways. Michael Baker provided This project consisted of civil, electrical, and navigation aid (NAVAID) design and construction support for overlay of primary Runway 13/31 and reconstruction of parallel Taxiway "B". The project also included complete airfield lighting rehabilitation for these areas and associated connector taxiways and necessary drainage improvements within the project area.

Michael Hixson, PE | Quality Control

Perimeter Fence and Gate Improvements, David G. Joyce Airport – Winnfield, LA | As Project Manager, Mr. Hixson was responsible for design oversight, plan review and client management. The consultant provided design, bidding phase services, and construction administration for perimeter fence and gate improvements. The project generally consisted of removing the existing fence, clearing the property boundary, and installing approximately 13,415 linear feet of chain-link perimeter fence and gates to serve as a security fence. Items of work included removing existing barb-wire fencing, clearing and grubbing the property boundary, constructing new chain-link fencing and gates, installing erosion control measures, and seeding areas of disturbed soil.

Runway Pavement Repairs, False River Regional Airport – New Roads, LA | Mr. Hixson, Project Manager, was responsible for funding coordination between LaDOTD and FAA, client management, and oversight of design, bidding, and construction administration. The consultant provided engineering and design services for removal and reconstruction of approximately 1,000 square yards of failing asphalt pavement. Services included grant administration, design, bidding, construction administration, and resident project representative.

Terminal Area Improvements, Monroe Regional Airport – Monroe, LA | As Client Services Manager, Mr. Hixson was responsible for client management, grant administration, design phase services, and oversight of bidding and construction administration. The consultant provided inventory, programming, program management, project design, and construction administration for a new commercial terminal area and related facilities. The new commercial terminal, loop road expansion, public and rental car parking, and rental car service areas were constructed in four major phases over a period of roughly three and a half years, allowing for continued operations of existing facilities. The terminal design reflects the local character as a gateway to the City of Monroe and the character of the region. Use of stone on the interior and exterior, and natural cypress wood in key interior spaces, provides a warm and inviting introduction to the community that is reflective of the natural beauty of the area.

Apron Expansion for New Terminal, South Lafourche Leonard Miller, Jr. Airport – Galliano, LA | Mr. Hixson, Project Manager, was responsible for client management; grant administration; and oversight of design, bidding, and construction administration. This project consisted of approximately 18,485 square yards of new asphalt apron pavement, 1,900 square yards of new asphalt apron and taxiway pavement and approximately 111 square yards of new 10-inch thick concrete pavement for an aircraft fueling pad, and approximately 1,200 square yards of new asphalt pavement for a taxiway extension. The project included unclassified excavation, offsite borrow material, demolition of existing bituminous pavement and incidental site features, construction of pavement, aggregate base and grassed shoulders, storm drainage pipe, installation of erosion control measures and installation of pavement marking and surface mounted reflectors for the new apron pavement. Other work included demolition of 48 aircraft tiedowns and installation of 42 new aircraft tiedowns. The consultant provided design, bidding, construction administration, and resident project representative services for this project.

Runway Sealcoat and Marking, David G. Joyce Airport – Winnfield, LA | As Project Manager, Mr. Hixson was responsible for oversight of design and provided bidding and construction administration support. The consultant provided design, bidding, construction administration, resident project representative services for cleaning and sealing of approximately 15,000 linear feet of asphalt cracks; application of approximately 36,715 square yards of rejuvenator/sealer to airfield pavement; and replacement of approximately 29,335 square feet of airfield markings.

Airport Layout Plan Update, David G. Joyce Airport – Winnfield, LA | Mr. Hixson, Client Services Manager, was responsible for client management. The consultant led the effort for the Airport Layout Plan (ALP) update that was completed in the fall of 2015. By conducting a detailed evaluation existing and forecast aviation activity at the airport, the study identified a preferred alternative that illustrated several projects that were prioritized for implementation during the duration of the 20-year planning period.

Airport Lighting Rehabilitation, Alexandria International Airport – Alexandria, LA | As Client Services Manager, Mr. Hixson was responsible for client management; and oversight of design, bidding and construction administration.

Michael Hixson, PE | Quality Control

Runway 18N Drainage, Allen Parish Airport – Oakdale, LA | Mr. Hixson served as Project Manager and was responsible for client management; quality review of design; and oversight of bidding and construction administration.

South Air Carrier Apron Repair, Baton Rouge Metropolitan Airport – Baton Rouge, LA | Mr. Hixson, Operations Manager, was responsible for client management, quality review of the design phase services, and oversight of the bidding and construction administration.

Vault Electrical Design and Construction Services, Alexandria International Airport – Alexandria, LA | As Operations Manager, Mr. Hixson was responsible for client management and oversight of the design, bidding, and construction administration services.

Independent Fee Estimate for Rehabilitation of Taxiway “A”, Alexandria International Airport – Alexandria, LA | Mr. Hixson served as Project Manager and was responsible for completing an Independent Fee Analysis for the Rehabilitation of Taxiway “A” for the Alexandria International Airport.

Obstruction Removal, False River Regional Airport – New Roads, LA | Mr. Hixson, Project Manager, was responsible for client management and oversight of project.

EMAS Review, Lafayette Regional Airport – Lafayette, LA | Mr. Hixson served as Project Manager and was responsible for Quality Review of EMAS Plans and Specifications that were prepared by another design firm. Provided the owner with a summary of what items needed to be addressed per the scope of services.

Runway 11-29 Rehabilitation, Lafayette Regional Airport – Lafayette, LA | As Operations Manager, Mr. Hixson was responsible for client management and quality review of the design phase services.

I-49 Support Services (Phase I), Lafayette Regional Airport – Lafayette, LA | Mr. Hixson served as the Project Manager and was responsible for design support services per the owner's request regarding airport operations pertaining to the development of I-49 highway surrounding the airport. His role included meeting and coordinating with FAA, state, and other stakeholders; conducting report/plan reviews; and preparing studies, reports, and design plans.

Runway Rehabilitation, Hammond Northshore Regional Airport – Hammond, LA | Mr. Hixson served as Operations Manager and was responsible for client management; funding assistance coordination with LaDOTD and FAA; oversight of design; and coordination with subconsultants.

Terminal Apron Expansion, Greater Lafourche Port Commission – LA | Project Manager Responsible for construction administration oversight and client management.

Airport Rescue and Firefighting (ARFF) Station Expansion Engineering Services, Lake Charles Regional Airport – Lake Charles, LA | Mr. Hixson served as Client Services Manager. The consultant is providing architecture, civil, structural, mechanical, and electrical engineering services for the design of the Lake Charles Regional Airport Rescue Fire and Fighting (ARFF) station expansion project. The project includes the addition of approximately 2,500 to 3,000 square feet to the ARFF building. Services will be divided into two basic parts: schematic design and construction documents.

Rehabilitation of Runway 13-31 and Reconstruction of Parallel Taxiway B, Baton Rouge Metropolitan Airport – Baton Rouge, LA | Mr. Hixson served as Project Manager and Design Engineer and was responsible for the rehabilitation of Runway 13-31 and reconstruction of parallel Taxiway B. Project included partial depth milling and overlay on Runway 13-31 and reconstruction of existing PCC taxiway pavement and new runway and taxiway edge lighting and guidance signs.

Expansion of Air Carrier Aircraft Parking Apron, Baton Rouge Metropolitan Airport – Baton Rouge, LA | As Project Manager and Design Engineer, Mr. Hixson was responsible for the expansion of the air carrier aircraft parking apron. Project included new PCC pavement, edge lighting, and guidance signs.

Reconstruction of Primary Runway 4L-22R, Baton Rouge Metropolitan Airport – Baton Rouge, LA | As Project Manager and Design Engineer, Mr. Hixson was responsible for the reconstruction of primary Runway

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4L-22R. Project included full depth reconstruction of existing PCC runway pavement, new runway edge lighting, centerline and Touch Down Zone lighting. The preliminary phase of this project included a study of existing and proposed aircraft activity to determine design aircraft, as well as cost-benefit analysis of various rehabilitation and reconstruction alternatives. Following completion of the runway reconstruction, the Owner issued supplemental agreements for design services in connection with a 600-foot runway extension, including parallel taxiway, as well as Threshold Siting Studies for each end of the two air-carrier runways.

Airport Master Plan Update, Monroe Regional Airport – Monroe, LA | As Project Team Engineer was responsible for update of Airport Master Plan.

New Passenger Terminal, Monroe Regional Airport – Monroe, LA | As Project Team Engineer, was responsible for new Passenger Terminal. Responsibilities included airside civil design and overall project coordination.

Airfield Lighting Rehabilitation, Monroe Regional Airport – Monroe, LA | As Project Team Engineer, was responsible for Airfield Lighting Rehabilitation Project.

Runway Extension, South Lafourche Leonard Miller, Jr. Airport – Galliano, LA | As Project Manager and Design Engineer was responsible for 2,700-foot runway extension, full parallel taxiway, airfield NAVAIDS and new electrical vault.

Runway Extension, Huntsville International Airport – Huntsville, AL | As Design Engineer was responsible for 4,600-foot extension of Runway 36.

Runway Extension, Columbia Metropolitan Airport – Columbia, SC | As Project Team Engineer, was responsible for 4,300-foot extension of Runway 11 and roadway tunnel under extension.

Airport State Road Relocation, Piedmont Triad International Airport – Greensboro, NC | Mr. Hixson served as Project Manager and Design Engineer and was responsible for relocation of on-airport state road. Project included new 6-lane signalized intersection with existing 4-lane state highway, revised entrance to existing office park, and relocation of major utilities.

Runway Rehabilitation, Piedmont Triad International Airport – Greensboro, NC | As Project Manager and Design Engineer was responsible for rehabilitation of 10,000-foot runway and new high-speed exit taxiway.

FedEx Hub, Parallel Runway and Taxiway, Piedmont Triad International Airport – Greensboro, NC | As Project Team Engineer, Mr. Hixson was responsible for supplemental design and planning for new FedEx hub, new parallel runway and dual cross field taxiways, and various roadway improvements.

Master Plan Update, Rockingham County NC Shiloh Airport – Rockingham County, NC | Project Manager and Design Engineer responsible for update of Airport Master Plan.

Apron Rehabilitation, Kinston Regional Jetport – Kinston, NC | Project Engineer responsible for ARFF apron rehabilitation.

Site Preparation, Piedmont Triad International Airport – Greensboro, NC | Project Manager and Design Engineer responsible for site preparation for future air cargo expansion project.

Apron Expansion and Taxiway Construction, Piedmont Triad International Airport – Greensboro, NC | Project Team Engineer responsible for design of apron expansion and taxiway construction.

Parking Lot Design, Piedmont Triad International Airport – Greensboro, NC | Project Engineer. Responsible for design of employee parking lots.

Apron Design, Piedmont Triad International Airport – Greensboro, NC | Project Team Engineer responsible for design of air cargo apron.

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Runway 5-23 and Parallel Taxiway, Davidson County Airport – Lexington, NC | Project Engineer responsible for design of a new Runway 5-23 and parallel taxiway, airport entrance road, apron, and T-Hangars.

Parking Lot Design, Mt. Airy/Surry County Airport – Mount Airy, NC | Project Engineer responsible for design of automobile parking lot.

Runway Rehabilitation Design, Martin County Airport – Williamston, NC | Project Engineer responsible for design of runway rehabilitation project.

Runway Extension Design, Stanly County Airport – New London, NC | Project Team Engineer responsible for design and site grading for runway extension and strengthening.

Runway, Taxiway, and Apron Reconstruction, Laurens County Airport – Laurens, SC | Project Team Engineer responsible for design and site grading for the reconstruction of a runway, taxiway, and apron; and for extension of a safety overrun.

Runway Rehabilitation, Lancaster County Airport – Lancaster, SC | Project Team Engineer responsible for design and site grading for runway rehabilitation.

Runway Extension and Partial Parallel Taxiway Construction, Laurens County Airport – Laurens, SC | Project Team Engineer responsible for design and site grading of a 400,000 C.Y. embankment for a runway extension and partial parallel taxiway construction.

Parking Lot Design, Columbia Metropolitan Airport – Columbia, SC | Project Team Engineer responsible for design and site grading for multiple automobile parking lot projects.

Taxiway Rehabilitation, Darlington County Airport – Darlington, SC | Project Team Engineer responsible for design and site grading for the reconstruction/rehabilitation of a taxiway.

Runway Rehabilitation, Knoxville Downtown Island Airport – Knoxville, TN | Project Team Engineer responsible for design and site grading for runway rehabilitation.

Runway Inspection, Columbia Metropolitan Airport – Columbia, SC | Construction Inspector responsible for inspection of runway extension and strengthening, taxiway construction, and runway grooving.

Parallel Taxiway and Cross-Field Taxiway, Memphis International Airport – Memphis, TN | Project Team Engineer responsible for horizontal geometry design, joint layout, site grading, and project coordination of a partial parallel taxiway and cross field taxiway.

Design and Site Grading, Myrtle Beach International Airport – Myrtle Beach, SC | Project Team Engineer responsible for design and site grading for two high speed exit taxiways.

Runway 3-21 Rehabilitation, Greenville-Spartanburg International Airport – Greenville, SC | Project Team Engineer responsible for design and site grading, project coordination between three design teams, cost estimates, and presentation quality of final plans for strengthening of Runway 3-21.

Access Road Design, Greenville-Spartanburg International Airport – Greenville, SC | Project Engineer responsible for design of new access road, horizontal and vertical geometry, grading, drainage, and plan production.



HAMED JAFARIAN, PE

Airside Design

Mr. Jafarian has more than a decade of experience in the design, project management, and plans preparation for aviation-related projects at numerous airports in Florida and the southeast. He has worked on numerous projects involving the design of runways, taxiways, aprons, airport lighting systems, and other airport infrastructure. He specializes in geometric design of airport runways, taxiways, aprons, airport lighting systems, drainage systems, and other airport infrastructures based on Federal Aviation Administration (FAA) Advisory Circulars and roadway facilities in accordance with FDOT criteria and regulations. Some other areas of expertise are preparation of stormwater pollution prevention plans, pre- and post-development maps, and flood plain compensation calculations.

Mr. Jafarian's airport services extend to FAA Obstruction Evaluation/Airport Airspace Analysis (OE/AAA), airside and landside civil design, engineer's report and other associated services. He has designed flexible and rigid pavements for airports using the FAA programs and has prepared quantities and engineer's estimates for many projects. He has performed a broad range of highway design tasks including horizontal and vertical geometry, pavement design, signing and marking plans, traffic signal installation, utility adjustments, ITS design, MOT plans, quality control, estimates, quantities, and engineer's reports.

EDUCATION:

MS, Civil Engineering,
University of South Florida
(Pending)
BS, Civil Engineering,
Azad University (2002)

EXPERIENCE:

Career: 2004 – Present
ICE: 2016 – Present

REGISTRATION:

Professional Engineer:
FL #76516
GA #PE039012

CERTIFICATES & TRAINING:

- ICPR
- Streamline Technologies
- Stormwater Retention
- Stormwater Quality and Erosion Control Overview
- ACF 2012
- Civil3D Core Concept
- Autodesk

EXPERIENCE:

Crack Repair, Seal, and Restripe Runway 18/36, Ocala International Airport – Ocala, FL | Mr. Jafarian served as the Project Manager responsible for designing the crack repair, sealing, and restriping of Runway 18/36. He designed the work in accordance with the requirements of the Federal Aviation Administration (FAA) and the Florida Department of Transportation. A seal coat will be required to limit the iron oxide from the aggregate and rust surface water flow affecting the white edge markings. It will also serve to rejuvenate and slow the raveling of existing pavement and provide a black surface for pilot visibility. A crack seal program will be employed prior to sealing. Mr. Jafarian is responsible for bidding services and will oversee the construction of the crack repair, sealing, and restriping of Runway 18/36. He prepared the contract documents for bidding including front end general provisions, general requirements, and technical specifications for the project. Mr. Jafarian also prepared the FAA grant application for construction, prepared the Construction Safety and Phasing Plan (CSPP), and prepared the details and marking plans for restriping Runway 18/36.

Ocala Gaslight – City of Ocala, FL | Mr. Jafarian was responsible for preparing conceptual drawings for the court house parking lot. Completion date was 2014 with a construction cost of \$64k.

West Apron Expansion, Destin-Fort Walton Beach Airport – Okaloosa County, FL | This project created additional ground loading apron spaces or overflow rest overnight (RON) space for aircraft to base overnight for early flights when all the existing spaces with jet bridges are full or otherwise under exclusive lease by another airline. ICE worked with Airport staff and the FAA to finalize apron dimensions and develop detailed site development plans including airfield pavement structural design, geometrics, markings, lighting requirements, and other aircraft support infrastructure required (tie-downs, ground points, electrical or other infrastructure for ground power units, etc.). Mr. Jafarian, serving as Lead Design Engineer, was responsible for the design of the expansion of the aircraft parking aprons west of the existing apron to add parking positions, with five spaces provided for the airbus A-321 aircraft. The apron consisted of a combination of asphalt adjacent to the taxiway

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and concrete at the parking positions. The scope included field surveys, geotechnical investigation, geometric layouts, pavement design, stormwater management design and permitting, high mast light standards and electrical modifications, relocation of a pump station, blast fence design and relocating security fence, signage, pavement markings, bidding, and construction services.

Taxiway “N” Reconstruction, Daytona Beach International Airport – Dayton Beach, FL | This project consisted of the total reconstruction of the existing 2.5-mile-long Taxiway “N” (and Taxiway “A”) with reconfigured edge of pavement geometry, paved shoulders widened from 25' to 30' in width, installation of a new storm water drainage system, and the installation of new LED taxiway edge lights. ICE served as a subconsultant and performed the taxiway horizontal geometric design and layout and developing the overall construction safety and phasing plans for the project. Mr. Jafarian served as a Project Engineer and was responsible for the design of the project phasing and preparing construction safety plans including the OE/AAA permit.

Apron Expansion, Punta Gorda Airport – Punta Gorda, FL | Mr. Jafarian served as a Project Engineer for the design of the expansion of the aircraft parking aprons at the Punta Gorda Airport which experienced rapid growth with Allegiant Air. The project scope included professional engineering services to expand the aircraft parking aprons north of the existing apron to add parking positions, with three spaces provided for the airbus A-320 aircraft. The apron consisted of a combination of asphalt adjacent to the taxiway and concrete at the parking positions. Drainage was accommodated using trench drains tied to an underground drainage system. These positions were remote from the terminal, requiring a covered walkway to all three positions. The services included: field surveys, geotechnical investigation, geometric layouts, pavement design, storm water management design and permitting, high mast light standards and electrical modifications, relocation of a pump station, blast fence design and relocate security fence, signage, pavement markings, bidding, and construction services.

Aviation Engineering/Architecture Services for Airport Development Projects, Livingston Executive Airport – Livingston Parish, LA | Mr. Jafarian serves as the Civil Engineer for this project which includes providing program development services for the justification, design, and construction of a new airport in Livingston Parish, Louisiana known as the proposed Livingston Executive Airport. His responsibilities include grading of all aspects of the airport using AutoCAD Civil 3D including the entrance road, apron, taxiway, and runway. This project includes a Justification Study for the proposed airport to enter the FAA’s National Plan of Integrated Airport Systems (NPIAS), a feasibility study and preliminary engineering report for the proposed airport site airport master plan update; website development, community engagement and stakeholder engagement meetings; environmental analysis and permitting; architectural project visioning and conceptual design (including 3D renderings and fly throughs of the recommended airport concept); architectural preliminary building facilities design; engineering airport development and design; and Benefit-Cost Analysis (BCA). It is anticipated that the airport will be constructed and open within the next five years.

Hangar D, Sebastian Municipal Airport (X26) – Sebastian, FL | Mr. Jafarian is serving as a Project Manager for this design-build project that includes a total building footprint of 11,310 square feet, which can accommodate three King Air 200 or three Pilatus aircraft segregated with an interior wall or fenced partitions. The three storage hangars are 65 feet by 58 feet with 60-foot wide bi-fold hangar doors. The project also includes a 3,000-square-foot office space compatible for future FBO or Airport Business Tenant; 2,000 square feet of office space for local businesses; and two parking lots. The project includes site pavements for apron, taxilanes, and parking, as well as stormwater management. ICE designed the site improvements necessary for the development and the permits. The building will be contractor selected, pre-engineered, and based on detailed specifications prepared by ICE with input from the Airport Director. The design includes taxilane modifications, parking, lighting, utilities, sidewalks, landscaping, irrigation, and drainage. A plan set will be developed for the building to illustrate exterior elevations, floor plans for office space, work areas, windows, doorways, and restrooms. Basic electrical requirements, a code review, and sprinkler system needs will also be detailed. Mr. Jafarian is responsible for the professional services associated with design, permitting, bidding, and construction administration.

Airport Pavement Strength Analysis and Report, Baton Rouge Metropolitan Airport – Baton Rouge, LA | As an Engineer, Mr. Jafarian was responsible for preparing PCN study report per FAA criteria for three runways and all taxiways and aprons within the airport. ICE prepared an Airport Pavement Strength (PCN) Report and

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analysis for the City of Baton Rouge/Parish of East Baton Rouge on behalf of the Baton Rouge Metropolitan Airport. The scope of service included preliminary investigation and inventory, pavement inspection, data analysis and quality control, geotechnical engineering, and preparation of the final report.

Wando Welch Terminal Traffic Flow Improvements, Phase I – Charleston County, SC | Mr. Jafarian is serving as an Engineer and responsible for geometry design and grading the chassis yard and related site. This project consists of providing engineering services to increase traffic throughout the terminal and to help improve traffic safety. The design includes installation of an additional truck lane from the outbound processing Building 441 to the outbound security gate on Long Point Road, expansion of the outbound security gate, extension of the inbound truck queue lanes at Building 401, installation of a new parking lot at Building 442, parking lot modifications, a new driveway at Building 448, and a new paved driveway to Building 419. Conceptual designs for a new roundabout and queue road around the chassis yard and traffic analyses were also performed for three projected terminal growth scenarios: 1.8 Million Twenty-Foot Equivalent Units (TEUs), 2.5 Million TEUs, and 3.0 Million TEUs.

VHB Metropolitan Airport Systems Study – Mobile, AL | Mr. Jafarian served as a Project Engineer responsible for providing rough order of magnitude cost estimating services for this project that consisted of determining if it is cost effective to have commercial air services at Mobile Downtown Airport (BFM) and evaluated if changing the roles of the Mobile Regional Airport and the Mobile Downtown Airport will provide better air service options in the future. Careful consideration was made as to how a role change would affect economic development coupled with known major infrastructure projects on and around the airports. It was also determined if the potential future economic impacts and regional benefits of adding St. Elmo Ail-port under the ownership and operation of the Airport is beneficial to BFM.

Airport Landside and Terminal Parking Lot Improvements, St. Pete Clearwater International Airport – Clearwater, FL | Mr. Jafarian was an Aviation Engineer for the design assistance and phasing plans for the reconfiguration and realignment of the existing $\frac{3}{4}$ mile long entrance road and the reconfiguration and expansion of the existing parking lots at the Airport. As a subconsultant, ICE performed the preliminary entrance roadway/parking lots geometric design and layout, quality control reviews, and developed the overall construction sequencing plans for the project to ensure continuous vehicular access to the terminal and parking areas with safe routes for pedestrians from the parking lots to the terminal building during construction.

Taxiways “C”, “D”, and “E”, Sebastian Municipal Airport – Sebastian, FL | Mr. Jafarian served as an Aviation Engineer responsible for designing several new parallel taxiways to enhance safety at this uncontrolled airport. The purpose was to limit the number of runway crossings, decrease the chances of an incursion, and provide a safer route for taxiing aircraft. A full-length parallel Taxiway “C” to Runway 5-23 on the north side was constructed with a partial parallel (Taxiway “D”) on the south side. The project also included Taxiway “E,” a partial parallel taxiway to Runway 10-28 along the south side to move the main General Aviation traffic to the runways. Mr. Jafarian designed all work in accordance with the 13A Advisory Circular geometry requirements, and he assisted with stormwater designs which were performed to minimize ponds by sheet flowing runoff for treatment through the Water Management District. Mr. Jafarian performed airfield signage design, pavement design, pavement marking design, and prepared a Construction Safety and Phasing Plan (CSPP). He was also responsible for performing geometric design, FAA coordination, setting alignments, plan production, bidding services, construction administration, and submittal reviews.

T-Hangar Replacement, Sarasota Bradenton International Airport – Sarasota, FL | Mr. Jafarian served as a Project Engineer for design, construction plans, and construction phase services for the replacement of existing portable hangar buildings J-4 and J-5. The clear door width for the set of buildings was 41.5' x 12'. Each building is a standard (stacked) configuration consisting of 14 units (28 total). Also included in this project were two larger hangar buildings (J-7 and J-8) to the south of Taxiway “F”. The clear door width for these buildings will be wider than J-4 and J-5 at 47.5' x 14'. Special, larger end units were designed on each of the two buildings with a clear door width of 51' x 16'. At this width, J-7 can accommodate 12 units and J-8 can accommodate 15, both with a nested configuration. Taxilane and drainage infrastructure were already in place through a past project designed by ICE staff. Site work consisted of the removal of the asphalt pads under the Port-a-Port buildings, new drainage

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pipes, and the relocation of the taxilanes to line up with the new doors. On the building, ridge vents were provided for air circulation. Exterior building mounted LED lights were provided for taxilane illumination. Door types were bifold type. Building manufacturer was Erect-a-Tube.

DFW Pavement Condition Index Study – Dallas Fort Worth, TX | Mr. Jafarian served as a Civil Engineer responsible for preparing PCI, SCI, and FOD exhibits, evaluation and quality control of inserted data into MicoPaver, and comparison to field inspections using GIS.

Runway 11-29 Safety Area Improvements, Merritt Island Airport – Brevard County, FL | Mr. Jafarian was the Civil Engineer responsible for preparing air space study checklist drawings and details.

Runway Exit Connector Taxiway “J”, Sarasota Bradenton International Airport – Sarasota, FL | As a Civil Associate, Mr. Jafarian assisted with the design of a 6,500-square yard asphalt paved ADG III runway exit connector taxiway between the main air carrier Runway 14-32 and parallel Taxiway “C”. Stormwater design, permitting, and airfield lighting and guidance signage were also included in the project. Construction administration services and part-time inspection services were also provided during construction.

Taxiway “G”, Sarasota Bradenton International Airport – Sarasota, FL | Mr. Jafarian assisted with providing engineering services for the design and preparation of final construction documents for the construction of the proposed 1,200 feet Taxiway “G”, which will connect Taxiway “H” to Taxiway “C” at the intersection of Taxiway “C-2”. The project required modifications to Taxiways “H” and “C” by providing the required pavement tapers at the intersections meeting the requirements for a Group III aircraft. Design of this project consisted of the geometric design, pavement design, drainage design, and the preparation of construction plans in accordance with the FAA Standards and Design Criteria.

Security System Fiber Optic Duct and Phone Line Phase 1, Sarasota Bradenton International Airport – Sarasota, FL | Mr. Jafarian assisted with designing a fiber optic line and duct bank running from the terminal building to the Aircraft Rescue and Firefighting (ARFF) facility for connecting the airport communications center in the terminal building with the ARFF. The duct had to go under the terminal apron and across Runway 4-22 and parallel taxiways via directional bore installation.

Taxiway “F” Rehabilitation, Sarasota Bradenton International Airport – Sarasota, FL | Mr. Jafarian provided professional services associated with design and construction of the Taxiway F Rehabilitation project which consisted of milling and overlaying the taxiway with a nominal two-inch bituminous surface course and minor new pavement construction to enlarge turning radii at an intersecting taxilane. This project included a site investigation and the completed final design consisted of pavement, pavement rehabilitation, and construction plans. He coordinated with the client, Federal Aviation Administration (FAA), Florida Department of Transportation (FDOT), and geotechnical and survey subconsultants while also developing and distributing bidding documents and providing construction administration services.

Airfield Perimeter Service Road Relocation and Widening Phases 1, 2, and 3, Sarasota Bradenton International Airport – Sarasota, FL | Mr. Jafarian assisted with design and construction administration for the widening of approximately 1.7 miles of an existing airfield perimeter service road from one to two lanes and construction of approximately 2.3 miles of new two lane roadway undertaken to allow two-way traffic and open up the midfield and other areas of the airport to public accessible development. This project included drainage design and SWFWMD and Sarasota County permitting. Due to funding limitations, the project was split into three phases.

Master Lighting Plan, Sarasota Bradenton International Airport – Sarasota, FL | Mr. Jafarian was responsible for providing a comprehensive master lighting and inventory plan and details for the whole airport.

Runway 14-32 Runway Safety Area Improvements, Palm Beach International Airport – Palm Beach, FL | Mr. Jafarian assisted with the design of safety area improvements consisting of the installation of an Engineered Materials Arresting System (EMAS). Coordination with ESCO (EMAS manufacturer) and the FAA was required in order to develop the proper design. Key aspects of the project included relocation of the existing crash gate to maintain ARFF access to the runway without impacting the arrestor bed and maintaining taxiway access across

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the end of the runway during construction. Design started in March 2010 and was completed in June 2010. Construction began in May 2011 and was completed by July 2011.

Taxiway “L” Extension, Palm Beach International Airport – Palm Beach, FL | As a Civil Associate, Mr. Jafarian was responsible the design of the Extension of Taxiway L. This taxiway was designed for ADG III with accommodations for expansion to ADG IV. It provided Runway 10L-28R with a full length parallel taxiway on both sides and a parallel taxiway to the future extension of Runway 10R-28L. This project included relocation of exiting Runway 28R Glide Slope and FAA control cabling along with the design of stormwater management facilities meeting SFWMD requirements for water quantity and quality discharges. Services also included assisting the PBCDOA with construction administration.

Wetland Wildlife Hazard Abatement, Palm Beach County Department of Airports – Palm Beach Gardens, FL | Mr. Jafarian was the Civil Engineer responsible for construction plans and analysis of existing and anticipated future stormwater conditions of the airport in order to meet South Florida Water Management District regulations including dewatering and pump sizing calculation using Ponds Program. He determined the limits of wetland and surface waters that are located near the runways at North Palm Beach County General Aviation Airport and performed a preliminary wildlife hazard assessment. The wetland and surface waters attract birds and other wildlife that contribute to wildlife hazard issues and increase the potential for bird strikes. Mr. Jafarian met with regulatory agencies to determine the feasibility of filling and mitigating for impacts to wetlands, prepared the environmental resource permit application, and provided mitigation options to implement the wildlife hazard abatement measure of filling the wetlands. He obtained state and federal permits for the client, and mitigation credits were purchased from a public restoration area to compensate for impacts to the wetlands.

Air Cargo Ramp Expansion, Palm Beach International Airport – Palm Beach, FL | Mr. Jafarian assisted with the drainage report, ERP application, Engineer’s Report, and construction drawings.

South Taxilane Rehabilitation, Palm Beach International Airport – Palm Beach, FL | As a Civil Associate, Mr. Jafarian was responsible for the pond design and flood plain compensation for a 1,600-foot Group III Taxilane. The existing taxilane was removed, strengthened, and reconfigured.

Airfield Markings Improvements, Palm Beach International Airport and North County Airport – Palm Beach County, FL | Mr. Jafarian assisted with the design of updated threshold markings, new enhanced centerline markings, and runway hold position lines. He also re-marked runway for non-precision approach.

Stormwater Pollution Prevention Plan (SWPPP), North County General Aviation Airport – Palm Beach County, FL | As a Civil Associate, Mr. Jafarian assisted with creating a Stormwater Pollution Prevention Plan for this airport. This included a detailed site map and an airport drainage map.

Stormwater Pollution Prevention Plan (SWPPP), Glades Airport – Palm Beach County, FL | Mr. Jafarian assisted with creating a Stormwater Pollution Prevention Plan for this airport which included a detailed site map and an airport drainage map.

Stormwater Pollution Prevention Plan (SWPPP), County Park Airport – Palm Beach County, FL | As a Civil Associate, Mr. Jafarian assisted with creating a Stormwater Pollution Prevention Plan for this airport. This included a detailed site map and an airport drainage map.

Roadway and Parking Lot Improvements Phase 2, St. Pete-Clearwater International Airport – Pinellas County, FL | Mr. Jafarian assisted with the design of miscellaneous airport roadway rehabilitation, parking lot expansion work, and new airport landside terminal signage. Key elements of the project included overlay of the terminal curbside, Airport Parkway, conversion of an employee to a commercial curbside for taxis and shuttle vans, construction of a new employee parking lot for UPS, and replacement of all the landside terminal area signage which included two new overhead signs with LED signs to be integrated with the airport’s flight information display system.

One-Way Couplet Traffic Analysis – City of St. Pete Beach, FL | Mr. Jafarian assisted with providing traffic analysis of a “one-way-couplet” concept for two streets in the city’s downtown business district to assist in

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encouraging economic growth. He conducted a traffic analysis using Synchro software to determine the impacts of such an operational change for the 2015 build year and for the year 2035. The study also considered emergency evacuation routes, Multimodal Transportation District (MMTD) issues, right-of-way identification of all roadways, corner truck turning radii issues, business operating names on aerial maps, existing bicycle lanes and pedestrian crossings, current and future roadway ownership issues, on-street parking opportunities, and public outreach.

Blind Pass Road, City of St. Pete Beach Public Services Department – Florida | As a Civil Engineer, Mr. Jafarian was responsible for geometric design which included considering the amount of driveway connections along with stormwater and utility adjustment using MicroStation and GEOPAK.

Plumb Elementary Schools, Pinellas County Schools, FL | Mr. Jafarian assisted with the stormwater calculations and geometric design for this project which included three parking lots and a stormwater management system. He reviewed as-built survey plans to provide record drawings for the owner.

Taxiway “A1” and South Apron Improvements, Albert Whitted Airport – St. Petersburg, FL | Mr. Jafarian worked on engineering services including design and preparation of final construction documents for construction of the South Apron and Taxiway “A1” and the installation of a run-up area on Taxiway “A1”. The project consisted of demolition of existing Taxiway “A1”, revisions to the airfield lighting and signage systems, a new ramp, aircraft parking position markings and tie-downs, airfield markings, drainage system design, and permitting. He provided pre-design services including coordination of geotechnical and survey subconsultants, development of a digital terrain model, and preparation of preliminary plans. Mr. Jafarian also provided final design services consisting of geometric design, pavement design, drainage design, and construction plans.

Taxiway “D” Extension, Albert Whitted Airport – City of St. Petersburg, FL | As a Civil Associate, Mr. Jafarian worked on the drainage report and construction drawings which involved modifying an existing permit.

Air Cargo Facility, Brooksville-Tampa Bay Regional Airport – Brooksville, FL | Mr. Jafarian, serving as an Aviation Engineer, assisted with designing a partial parallel taxiway to the main runway with two exit taxiways and a 130,000 square yard aircraft apron with concrete hardstands. The facility was designed for ADG IV aircraft and included a stormwater retention pond requiring SWFWMD permitting, a gopher tortoise survey, and relocation permitting. Design of the project began in February 2008 and was completed in January 2010. Construction is on hold pending the sponsor acquiring funding.

NE Corporate Center Utility Design, Brooksville-Tampa Bay Regional Airport – Brooksville, FL | Mr. Jafarian was responsible for geometric design of sanitary sewer pipe networks including their easement and lift station and related quantities and cost estimate.

Runway 9-27 PAPI Replacement, Brooksville-Tampa Bay Regional Airport – Brooksville, FL | As a Civil Associate, Mr. Jafarian was responsible for preparing construction plans for replacement of the PAPI system.

18L-36R Runway Rehabilitation, Jacksonville Aviation Authority – Cecil Field, FL | Mr. Jafarian was responsible for the design of the asphalt rehabilitation and concrete joint repair of Cecil Field’s 12,500' runway. Approximately 7,000' feet of the center portion of the runway is bituminous asphalt with roughly 5,000' on the south end and 300' on the north end consisting of Portland Cement Concrete (PCC). His responsibilities Included milling and resurfacing plans, detailed phasing plans, marking plans, and rehabilitation of all the connector taxiways “A2”, “A3”, and “B”. Drainage design included the evaluation of the infield drainage system to replace pipes with lower maintenance ditches.

9R-27L Runway Rehabilitation, Jacksonville Aviation Authority – Cecil Field, FL | As a Civil Associate, Mr. Jafarian was responsible for the design of the concrete and asphalt rehabilitation of Cecil Field’s 8,000' runway, which included milling and resurfacing plans, detailed phasing plans, marking plans, concrete repair, and rehabilitation of all the connector taxiways. He was also responsible for videotaping the drainage pipes and identified pipe repair areas under runway and FAA and tower coordination.

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Terminal Access Roadway Rehabilitation, Jacksonville Aviation Authority, FL | Mr. Jafarian was responsible for preparing construction drawings.

Employee Parking Lot Entrance Road, Jacksonville Aviation Authority, FL | As a Civil Associate, Mr. Jafarian was responsible for preparing construction drawing.

Design of New Maintenance Hangar C and Warehouse – Titusville-Cocoa Airport Authority, FL | As a Civil Engineer, Mr. Jafarian was responsible for preparing construction drawings, engineer's report, and a cost estimate.

Eastside Storage Hangar, Space Coast Regional Airport – Titusville-Cocoa Airport Authority, FL | Mr. Jafarian was responsible for preparing construction drawings for Titusville-Cocoa Airport.

West Apron Rehabilitation, Space Coast Regional Airport – City of Titusville, FL | Mr. Jafarian assisted with preparing construction drawings for the west apron rehabilitation at the Space Coast Regional Airport

Airport Drainage Design and Permit Applications – St. Lucie County International Airport, FL | Mr. Jafarian's responsibilities included providing drainage plans, calculations, and assisting with permit applications for the proposed Taxiway "C" improvements. The scope of the project included widening Taxiway "C" from Taxiway "A" to Taxiway "E", including Connector Taxiways "E" and "C8". He completed two primary tasks which were drainage design and permitting of the Taxiway "C" improvements and design and permitting of the modifications to the stormwater ponds to accommodate the Taxiway "C" improvements.

St. Augustine Spoil Island – St. Augustine-St. Johns Airport Authority, FL | As a Civil Associate, Mr. Jafarian was responsible for putting together construction drawings for Spoil Island. He coordinated with Passero and Birkitt on the construction drawings and kept files updated on the Passero website. Mr. Jafarian also kept the client satisfied by answering questions, updating plans, and staying on schedule.

Canal Relocation, Northeast Florida Regional Airport at St. Augustine – St. Johns County, FL | Mr. Jafarian provided plans for canal relocation including an erosion control plan. He also provided an access route to the canal relocation and a phasing plan for sequencing of the project.

Rental Car Facilities – Pensacola Regional Airport, FL | Mr. Jafarian helped provide the civil design of a 21-acre site involving the site design for rental car fuel islands, maintenance and office buildings, and automated wash buildings. His design/oversight responsibilities included water, sewer, grading, drainage, pavement, roadway design, parking, site lighting, security, landscaping, cost estimating, schedules, subcontractors, and plan production.

HCAA Checked Baggage Upgrade, Tampa International Airport – Hillsborough County Aviation Authority, FL | As a Civil Engineer, Mr. Jafarian was responsible for preparing Architectural drawings for upgrading HCAA's baggage claim facility.

IBC Hangar, Miami International Airport – Miami Dade County, FL | Mr. Jafarian provided preliminary cost estimate for building a new hangar Apron and civil site work.

SR 45/9 (From US 41 at Rattlesnake Hammock Road To SR 45 at Immokalee Road) – FDOT District One, Collier County, FL | As a Civil Engineer, Mr. Jafarian worked on this design build project which consisted of traffic signal installations and MOT plan.

SR 43 (US 301 at 19th Avenue NE) – FDOT District Seven, Hillsborough County, FL | Mr. Jafarian worked on this DBPB2 project which included a variety of tasks consisting of pavement markings, utility adjustments, traffic signal installations, addition and improvements of sidewalks, ADA upgrades, traffic control plan, engineer's estimates, and quantity computation.

SR 45 (US 41 / South Tamiami Trail at Riverview) – FDOT District Seven, Hillsborough County, FL | Mr. Jafarian worked on this DBPB2 project and was responsible for a variety of tasks including pavement markings, utility adjustments, traffic signal installations, addition and improvements of sidewalks, ADA upgrades, traffic control plan, engineer's estimates, and quantity computation.

Hamed Jafarian, PE | Airside Design

SR 580 (Busch Blvd. At North 12th Street) – FDOT District Seven, Hillsborough County, FL | Mr. Jafarian, a Civil Engineer, worked on this DBPB2 project which included tasks such as pavement markings, traffic signal installations, mast ARM assemblies, Guide sign, traffic control plan, engineer's estimates, and quantity computation.

US 49 – MDOT District Five, Rankin County, MS | Mr. Jafarian worked on this project which included a variety of tasks such as traffic signal installations, mast ARM assemblies, traffic control plan, ITS design (CCTV, RDS), engineer's estimates, and quantity computation.

Pavement Restoration and Underground Utility Design, 105th Avenue to 127th Avenue – City of Treasure Island, FL | As the Lead Civil Engineer and Project Coordinator, Mr. Jafarian was responsible for handling and coordinating the project with the City of Treasure Island, Duke Energy, and FDOT RRR Project along with providing construction drawings and intersection improvements, easement acquisitions, and necessary permits for the project. He also reviewed shop drawings, construction inspection and punch list per city request, and addressed construction issues in a timely manner.

Curbside Improvement Design, Sarasota Bradenton International Airport and Sarasota Manatee Airport Authority – Sarasota, FL | Mr. Jafarian was responsible for coordinating the preparation of alternative plans for the reconfiguration and rehabilitation of the roadway in front of the airport terminal. He also prepared preliminary cost estimates for each of the alternatives to enable the client to make an informed decision on the most operationally efficient and cost-effective alternative. Mr. Jafarian was responsible for civil design including geometry, pavement marking, and drainage.

CCTV Camera, City of Tampa Transportation Department – Tampa, FL | As a Civil Associate, Mr. Jafarian was responsible for preparing location and mounting detail plans for installation of more than 60 new CCTV cameras in downtown Tampa.

Pavement Design for Parking Lots at Treasure Island Florida – City of Treasure Island, FL | Mr. Jafarian was responsible for creating the typical sections and specifications for the parking lots.

Bike Trail Design, 108th Avenue and Treasure Island Causeway Intersection Improvements and Milling and Resurfacing of Local Roads – City of Treasure Island, FL | As a Civil Associate, Mr. Jafarian was responsible for providing geometric design of the project, in addition assisted on getting a permit exemption through SWFWMD.

Storm Drain Repair at Leo Kidd Avenue – City of Port Richey, FL | As a Civil Associate, Mr. Jafarian provided plans for storm drain repair at Leo Kidd Avenue and assisted on the stormwater calculations.

**EDUCATION:**

MS, Civil Engineering,
University of Central Florida
(2013)

BS, Civil Engineering,
Applied Science University,
Amman, Jordan (2011)

EXPERIENCE:

Career: 2009 – Present
ICE: 2021 – Present

REGISTRATION:

Professional Engineer:
FL #84363

MARAM ALDADA, PE**Airside Design**

Mr. Aldada serves as a Project Manager for ICE Tampa as part of the Aviation Department. He is a licensed professional airfield engineer with nearly 10 years of experience dedicated to designing airfield engineering projects. His airfield project experience ranges from pavement management to facilities rehabilitation and reconstruction. Mr. Aldada's experience includes knowledge of FAA and FDOT design criteria and regulations as they relate to construction in and around airports. He is well versed in various types of software, including AutoCAD, Autodesk Civil 3D, Pavement Design Software: FAARFIELD and PCASE, AviPlane, AutoTurn, COMFAA, Primavera, MicroPaver, and MicroInspector.

EXPERIENCE:**Taxiway "J" Rehabilitation, Orlando International Airport – Orlando, FL**

| Mr. Aldada served as Project Engineer on this project that included the rehabilitation of the midfield portion of Taxiway "J", which includes two taxiway bridges. He was responsible for completing the civil engineering design, which included geometric layout, pavement design, profile design, grading, drainage improvement, and marking layout. In addition, Mr. Aldada was part of the construction administration team where his duties included shop drawings review, weekly inspection, coordination between involved parties and pay application review/approval. The work consisted of improving existing pavement section(s) and geometry for taxiway-taxiway and apron-

taxiway intersections within the limits of the project to comply with current FAA standards of Advisory Circular 150/5300-13A, Change 1. In addition, electrical improvements included replacing centerline lighting with LED fixtures, replacement of electrical manholes with junction can plazas, and new LED edge lights and LED signage as well as new circuiting and a new grounding grid.

Airport Pavement Management System (APMS) Update, Luis Munoz Marin International Airport – San Juan, Puerto Rico

| This APMS report provides an updated baseline validation of the pavements and specific guidance toward necessary maintenance activities as they pertain to the airfield systems at OIA. A key component of an APMS Update is to perform a records review to identify all rehabilitation/construction projects completed since the previous study (2016) and to update the network definition map accordingly. Another vital element of the APMS Update is a physical pavement inspection, which is done in accordance with ASTM D5340 "Standard Test Method for Airport Pavement Condition Index Surveys." All airside pavement sections are re-surveyed and assessed using the Pavement Condition Index (PCI) procedure – the industry standard in aviation for visually assessing the condition of pavements. During a PCI inspection, engineers and technicians identify signs of deterioration on the surface of the pavement called distresses. The type, severity, and amount of distresses present in a pavement are quantified during the pavement survey. The results of the survey are then entered in a computer pavement management database (MicroPAVER) and used to develop a composite index (PCI number). The individual distress information, such as cracking or rutting, provides insight into what may be causing the pavement to deteriorate. These factors can then be used to select the appropriate maintenance or rehabilitation action to correct the problem. Finally, the findings from the various field evaluations and data analysis activities are collectively considered in the development of a 10-Year Capital Improvement Program (CIP) for SJU. In addition, potentially large projects to be completed within the long-term (20-Year outlook) are identified.

Runway 18R-36L Rehabilitation, Orlando International Airport – Orlando, FL

| Mr. Aldada served as Project Engineer on this project that involved providing construction support on the repair and resealing of the existing concrete pavement joints, mostly in the keel section of the runway. He was responsible for completing the civil engineering design, which included geometric design, asphalt/PCC pavement design, PCC pavement

Maram Aldada, PE | Airside Design

distress mapping/repair, profile design, grading, drainage improvement, and marking layout. In addition, Mr. Aldada was part of the construction administration team; his duties included shop drawings review, weekly inspection, coordination between involved parties, and pay application review/approval. The project also consisted of repair or replacement of any cracked slabs; reconstruction using new concrete pavement for the north threshold of Runway 18R; resurfacing existing asphalt pavement for the outer runway sections; resurfacing or rejuvenating existing asphalt pavement for the runway shoulders and blast pads; improvements of existing pavement section and geometry for various runway-taxiway intersections to comply with current FAA standards; and improvement of existing runway lighting, marking and signage systems to comply with current FAA standards.

Taxiway “C” South End Rehabilitation, Orlando International Airport – Orlando, FL | This project consisted of the rehabilitation of the existing pavement for the south end of Taxiway C (located between Taxiway F and Taxiway B10), Taxiway B9 and related areas in order to eliminate sections of distressed pavement and maintain the aircraft taxiing capacity. The work also included milling of existing pavement, removing deteriorated pavement, bituminous pavement overlay and associated markings, lighting and signage to restore and maintain the airfield pavement serviceability areas. As Project Engineer, Mr. Aldada was responsible for completing the civil engineering design, which included geometric layout, pavement design, and marking layout. In addition, Mr. Aldada was part of the construction administration team; his duties included shop drawings review, weekly inspection, and attending weekly coordination meetings. The scope of work consisted of a study, design, bidding, permitting, construction administration and other related services necessary to successfully complete the project. Specific tasks included civil and airfield design; topographic surveying; geotechnical exploration, evaluation and documentation of existing conditions; verification of as-built conditions, field location and verification of existing above and underground utilities; cost estimating and scheduling; technical studies; resident engineering; and all other related services including coordination with the Authority, other consultants, the City of Orlando, and all agencies having jurisdiction over the project.

Apron Rehabilitation, Phase 2, Greenville-Spartanburg International Airport – Greer, SC | Mr. Aldada served as Project Engineer on this project that included the second phase for the rehabilitation of the air carrier terminal apron concrete pavement and incorporated an area from the north side of the “garden area” to the north end of the terminal apron, encompassing the aircraft parking and maneuvering areas for Gates B1 through B4. In this role, he was in charge of completing the civil engineering design, which included geometric layout, pavement design, drainage improvement, and marking layout. The project limits extended from the terminal building westward to the apron edge/taxilane edge interface, approximately 450 feet, but did not include the taxilane, and was approximately 720 feet long. Both full strength aircraft pavement and reduced strength GSE pavement (ground support equipment) were addressed and included in this project. The overall goal of this project was to construct the most durable and cost-effective apron rehabilitation possible while minimizing impacts and disruptions to GSP tenant and customer operations. The scope included performing design, bid, and construction phase services.



RUSS HOLLIDAY, PE

SENIOR PROJECT ENGINEER

Mr. Holliday, PE, performs project management and design utilizing AutoCAD, Civil 3D, and other industry standard design software packages. His work experience consists of engineering and project management for airport projects, including all phases of a project from topographical survey reduction, geometry, utility coordination, potable water and sanitary sewer design, drainage design, and pavement design to project cost estimation, bidding, DBE coordination services, construction administration, resident project representative, and project close out. He has extensive experience working with State Water Management Districts, the Florida Department of Transportation and the Federal Aviation Administration personnel.

RELEVANT EXPERIENCE:

TAXIWAY F EXTENSION AND CONSTRUCTION OF TAXIWAY E

Winter Haven Regional Airport, Winter Haven, FL | Project Engineer

This \$4.1M project consisted of extending Taxiway F to the Runway 5 and 23 ends, new construction of Taxiway E from the Runway 11 end to the intersection of Runway 5-23, and new blast pads on the Runway 5 and 23 ends. The electrical components of the project included new LED taxiway edge lights, cable and conduit, and signage. The project also included drainage improvements and markings.

TAXIWAY E EXTENSION (24 END)

Kissimmee Gateway Airport, Kissimmee, FL | Project Manager

This \$3.8M project consisted of the construction of Taxiway Echo pavement and run-up area, adjacent compass rose, edge lighting, grading, marking, and relocation of navigational aids. The project also included a medium intensity taxiway lighting system, upgrading the system's constant current regulator, vault work, cable and duct markers, junction bases, ground rods, and other electrical items necessary to meet FAA standards. Work included removal of one or more existing hangar buildings and foundations, associated apron pavements, underground utilities, tanks, and other facilities which currently obstruct the proposed alignment and construction of the improvements.

RUNWAY 5-23 REHABILITATION

Tampa Executive Airport, Tampa, FL | Senior Project Engineer

This \$5.9M project included a pavement condition evaluation, rehabilitation alternatives analysis, and design of an asphalt rehabilitation for Runway 5-23 and the associated connector taxiways. To address changes in the FAA geometric requirements, the taxiway connectors were reconstructed to modify the fillet geometry between Runway 5-23 and Taxiway E. In addition, all of the runway and taxiway edge lighting, REIL's, PAPI's, and MALSR were replaced and the electrical vault upgraded to accommodate the airfield electrical improvements.

RUNWAY 6-24 REHABILITATION

Kissimmee Gateway Airport, Kissimmee, FL | Project Manager

This \$2.8M project consisted of pavement and geometry analysis for rehabilitation of Runway 6-24 (5,000 ft x 150 ft); design provision for Runway 6 standard blast pad; airfield lighting, vault, and navigational aid analysis and design to consider future Runway 6 extension and LED versus Quartz/Halogen technology; temporary and permanent runway marking design; stormwater design and permit application; comprehensive land survey and geotechnical testing programs; comprehensive project and cost administration phase services; and FAA grant pre-application services.

EDUCATION:

MS Civil Engineering
University of Central Florida

BS Civil Engineering
University of Central Florida

PROFESSIONAL REGISTRATION(S):

Professional Architect, FL
No. 56825

YEARS OF EXPERIENCE:

29

YEARS WITH AVCON:

11

PERCENTAGE AVAILABLE:

25%



REHABILITATE, MARK AND LIGHT RUNWAY 18-36*Wauchula Municipal Airport, Wauchula, FL | Project Manager*

This \$2.9M project included pavement, vertical, and horizontal geometry analysis and design for the Rehabilitation of Runway 18-36 (4000 ft x 75 ft) including a minimum of 50 ft tie-ins at crossing taxiways for grade compliance; design provision for standard Blast Pads on both ends, with associated drainage; Medium Intensity Runway Light (MIRL) rehabilitation, REIL units, Airfield Lighting Vault study and necessary modifications, and Navigational Aids (PAPI-4) analysis and design to consider LED technology; design and coordination with the local power company to mark and light existing power poles and power lines; temporary and permanent runway marking design; storm-water and environmental review design and permit application; obstruction clearing in both approaches; comprehensive project and cost administration services; FAA Grant Application services; and DBE Goal and Methodology Update services.

CONSTRUCT, MARK, AND LIGHT TAXIWAY G*Ormond Beach Municipal Airport, Ormond Beach, FL | Project Manager*

This \$3.9M project included design of a full-length taxiway Golf parallel to existing Runway 17-35, run-up areas at each taxiway end, full taxiway marking per the runway classification to FAA specifications, new base-mounted LED taxiway lights per FAA standards and criteria, new home-run airfield lighting circuits back to a new electrical vault building, and new Runway End Identifier Light units on Runway 17 and 35 ends. The new electrical vault included a 13 ft x 30 ft pre-cast concrete wall building, site constructed, with new Airport Lighting Control System (ALCS), regulators, conductors, main and auxiliary panels, main disconnects, and HVAC System. A new diesel-powered backup generator with support pad and appurtenances was also constructed.

T-HANGAR TAXIWAY/TAXILANE PHASE 2*Wauchula Municipal Airport, Wauchula, FL | Project Manager*

This \$273K project consisted of the construction of a new aircraft taxiway connection to Taxiway A, and associated taxilanes leading to future T-Hangars. The construction of the taxiway and taxilane was funded at 100% by the FAA. The project had two main components which were to construct approximately 300 ft of main access taxiway and 600 ft of taxilane, comprising two sets of taxilanes, each approximately 300 ft long. Also included in the project were painted surface markings, turfing around the perimeter of new construction, and associated drainage to convey runoff via pipes and swales to the wet detention pond. The purpose of this construction was to provide aircraft access and staging for proposed T-Hangars.

TAXIWAYS N AND A IMPROVEMENTS*Daytona Beach International Airport, Daytona Beach, FL | Senior Project Engineer*

The objectives of this \$35M project were to extend the useful life of the taxiway pavements, to update the pavement geometry and to enhance the safety of air operations at the Airport. The project included the rehabilitation of the pavement for the length of Taxiway N from the Western edge (Runway 7L) to the Eastern limit (Runway 25R) including the connector taxiways to the limits of Runway 7L-25R. Taxiway A was rehabilitated for approximately 1,000 ft and was realigned as new construction for approximately 800 ft. Taxiways P4 and P5 were removed and replaced to the location approved by the Airport and FAA. Lighting, marking and signage was replaced/upgraded for each of the taxiways. Drainage improvements were made throughout the limits of the project.

TAXIWAYS B, C, AND L REHABILITATION*Orlando Sanford International Airport, Sanford, FL | Senior Project Engineer*

The objectives of this \$35M project were to extend the useful life of the taxiway pavements, to update the pavement geometry and to enhance the safety of air operations at the Airport. This \$10.8M project includes rehabilitation of a large portion of the taxiway system west of Taxiway R, with focus on Taxiway B. These improvements consist of milling the surface pavement to a depth that will remove a large percentage of the surface cracks, an overlay to bring the asphalt up to grade, and the construction of new paved shoulders. Additional elements of work include new asphalt shoulders, new pavement marking and new taxiway edge lights to reflect the new geometry and grading and drainage improvements as required.

**EDUCATION:**

BS, Civil Engineering,
University of South Florida
(2016)

EXPERIENCE:

Career: 2016 – Present
ICE: 2017 – Present

REGISTRATION:

Engineering-In-Training:
FL #1100020644

Amr Mansour, EI**Airside Design, Technical Production**

Mr. Mansour is currently serving as a Roadway Designer, working primarily with aviation projects involving the design of runways, taxiways, aprons, hangars, pavement design and marking, and other airport infrastructure. Since joining ICE, Mr. Mansour has been gaining valuable experience working under the supervision of the professional engineers in our Tampa office for our Airport clients throughout the state of Florida. His experience includes CAD production and assisting with construction plans using FAA design criteria and advisory circulars. In addition, Mr. Mansour also assists with preparation of construction permits, project specifications, and grants related applications. Also, under the supervision of our planning department, Mr. Mansour assists with the production of aviation planning projects including master plans and airport layout plans.

EXPERIENCE:

Perimeter Fence, Ocala International Airport – Ocala, FL | Mr. Mansour served as a Design Engineer and took responsibility of the project design and prepared the bid documents under the supervision of the Project Manager. This project was part of the Capital Improvement Plan (CIP) for the City of Ocala and the Ocala International Airport. The purpose of this project was to eliminate

digging under the existing fence by coyotes, gopher tortoises, and other wildlife by constructing a wildlife skirt. A 5' fence skirt was buried a minimum of 36" into the ground under the existing fence fabric and followed the 33,000' (roughly six miles) of existing fence. All swing gates were replaced with sliding gates, and a 6" concrete apron was poured under the gate to limit gaps. ICE provided the design, bidding, and construction phase services for this project. In addition, FDOT and FAA grant packages, grant assurances, and closeouts were provided by ICE.

West Apron Expansion, Destin-Fort Walton Beach Airport – Okaloosa County, FL | Mr. Mansour served as a designer and assisted with the CAD production and provided design assistance. This project consisted of enlarging the West Apron to create five additional commercial aircraft ground loading apron spaces for A319/320 and other narrow body aircraft. The spaces also serve as remain overnight (RON) space for aircraft to base for early flights when all of the existing spaces with jet bridges are full or otherwise under exclusive lease by another airline. ICE worked with airport staff and the FAA to finalize apron dimensions and develop detailed site development plans including airfield pavement structural design, geometrics, markings, lighting requirements, and other aircraft support infrastructure required (tie-downs, ground points, electrical or other infrastructure for ground power units, etc.).

Taxiway "N" Reconstruction – Daytona Beach International Airport, FL | This project is currently under design and consists of the total reconstruction of the existing 2.5-mile-long Taxiway "N" (and Taxiway "A") with reconfigured edge of pavement geometry, paved shoulders widened from 25' to 30' in width, installation of a new stormwater drainage system, and the installation of new LED taxiway edge lights at the Daytona Beach International Airport. ICE is serving as a subconsultant and is performing the taxiway horizontal geometric design and layout and developing the overall construction safety and phasing plans for the project. Mr. Mansour is serving as a Design Engineer and is assisting with the CAD production for the Project.

Apron Expansion, Punta Gorda Airport – Punta Gorda, FL | Mr. Mansour served as a Design Engineer providing design assistance for this project which included the expansion of the aircraft parking aprons north of the existing apron. The Punta Gorda Airport is experiencing rapid growth with Allegiant Air. The project scope included professional engineering services to expand the aircraft parking aprons north of the existing apron to add three additional aircraft parking spaces for the Airbus A319/A320/A321 and 737-800 aircraft. Originally designed with a blast fence for power-in power-out operations, only two positions were originally obtainable, so the airport directed ICE to revise for straight in operation with tug push back. The apron consists of a combination of asphalt and concrete in varying thicknesses for taxiway (4" asphalt/14" limerock), aircraft parking (15"

Amr Mansour, EI | Airside Design, Technical Production

concrete 6" recycled conc. base), and ground service equipment (concrete 6" recycled conc. base). Drainage was accomplished by the use of trench drains outfalling to a pipe network and then to a retention pond. These positions were remote from the terminal, requiring a covered walkway to all three positions.

Taxiway "C", "D", and "E", Sebastian Municipal Airport – Sebastian, FL | Mr. Mansour served as a Design Engineer and assisted with the CAD production for the project which included several new parallel taxiways to enhance safety at this uncontrolled airport. Several new taxiways were designed to limit the number of runway crossings, decrease the chances of an incursion, and provide a safer route for taxiing aircraft. A full-length parallel Taxiway "C" to Runway 5-23 on the north side was constructed with a partial parallel (Taxiway "D") on the south side. Included was Taxiway "E", a partial parallel taxiway to Runway 10-28 along the south side to move the main GA traffic to the runways. All work was designed in accordance with the 13A Advisory Circular geometry requirements. Stormwater design was performed to minimize ponds by sheet flowing runoff for treatment 62-330.449 F.A.C. and permits through the Water Management District. Airfield signage, pavement design, pavement marking, and a Construction Safety and Phasing Plan (CSPP) were prepared.

Acquisition and Installation of Passenger Loading Bridges, Lake Charles Regional Airport – Calcasieu Parish, LA | Mr. Mansour served as a Designer Engineer on this professional consulting services project that included design, bidding, construction support, and grant administration services. ICE reviewed and verified existing construction and equipment characteristics, assemble plans and specifications for the two new bridges located at Gates 1 and 4, and assist the Airport Authority with bidding. The bridge structure consisted of a ramped fixed tunnel, a rotating rotunda, telescoping bridge tunnel section, a cab with full controls for moving the bridge into position, vertical and horizontal drive system, Airport selected accessories, and provisions to mark or re-mark the apron for the new parking position.

Hugh Leatherman Terminal Design – Charleston County, SC | Mr. Mansour served as a Design Engineer and assisted with the CAD production for the proposed Hugh Leatherman Terminal. He was responsible for the design of stormwater systems, erosion control devices, and scour analysis of the proposed bridges onto the site. The SCDOT is under contract with the Port Access Road design build team to build the mainline bridge into the terminal as well as the relocated Tidewater Road bridge. The HLT project will tie in with the mainline bridge and continue the bridge section to the terminal entrance. The project will also tie in with the new Tidewater Road Bridge and continue until the alignment tie downs with the existing Tidewater Road near the west edge of the terminal site. Each of these bridges cross over Shipyard Creek at a large skew which is a tidally influenced waterbody and prone to storm surge events. Due to the skew and surge conditions a 2-dimensional model was created to determine velocity magnitude and direction at each of the proposed bents. Using the results from the model appropriate scour depths were calculated.

Shade Hangar, Sebastian Municipal Airport – Sebastian, FL | Mr. Mansour served as a Design Engineer and was responsible for the project design and prepared the bid documents under the supervision of the project manager. The City of Sebastian and the Sebastian Municipal Airport desired shade hangars for the west side of the airport. These hangars consist of column(s) support to a roof truss system which stretches and supports a type of polypropylene fabric covering. ICE provided performance specifications for a system meeting the airport's desire to be competitively bid. Site work included re-using much of the existing base material for the new pavement. An in-depth design for the grading, drainage, and permitting of the site was required, as well as obtaining water management permits. ICE was also responsible for administering the bidding process. The Airport desired a total of 14 shade hangars including 12 units for single engine type aircraft, and two larger units for twin engine aircraft.

T-Hangar Replacement, Sarasota Bradenton International Airport – Sarasota, FL | Mr. Mansour served as a Design Engineer and assisted with the CAD production for the replacement of several T-Hangar buildings, including J-4 and J-5 and new T-Hangar buildings J-7 and J-8. The clear door width for the set of buildings was 41.5' x 12'. Each building is a standard (stacked) configuration consisting of 14 units (28 total). Also included in this project were two larger hangar buildings (J-7 and J-8) to the south of Taxiway F. The clear door width for these buildings will be wider than J-4 and J-5 at 47.5' x 14'. Special, larger end units were designed on each of the two buildings with a clear door width of 51' x 16'. At this width, J-7 can accommodate 12 units and J-8 can

Amr Mansour, EI | Airside Design, Technical Production

accommodate 15, both with a nested configuration. Site work consisted of the removal of the asphalt pads under the Port-a-Port buildings, new drainage pipes, and the relocation of the taxilanes to line up with the new doors. On the buildings, manufactured by Erect-a-Tube, ridge vents were provided for air circulation, exterior building mounted LED lights were provided for taxilane illumination, and door types were bifold type.

Wando Welch Terminal Traffic Flow Improvements, Phase 2 – Mt. Pleasant, SC | Mr. Mansour served as the Design Engineer on this project that included an access improvement, a large expansion to the existing port chassis yard, a 20-acre pavement addition, and a new west access road to accommodate additional queue length of trucks. A new checkpoint and vehicle inspection station was designed at this new location. The existing concrete pavement will be rehabilitated due to its age and for uniformity with the expansion. The rehabilitation consisted of breaking and seating the concrete to such a gradation where it could be overlaid with no danger of reflective cracking. A major reconfiguration of the parking stalls and drive isles was needed to provide ease of operation and truck circulation. A large pond was designed and permitted, and storm drainage structures and large pipes move the water off the pavement and into the retention basin. Site lighting was included by high mast poles.

Wando Welch Terminal Traffic Flow Improvements, Phase I – Mt. Pleasant, SC | Mr. Mansour served as a Design Engineer and assisted with the CAD production for this traffic flow improvements project that consists of providing engineering services to increase traffic throughout the terminal and to help improve traffic safety. The design includes installation of an additional truck lane from the outbound processing Building 441 to the outbound security gate on Long Point Road, expansion of the outbound security gate, extension of the inbound truck queue lanes at Building 401, installation of a new parking lot at Building 442, parking lot modifications, a new driveway at Building 448, and a new paved driveway to Building 419. Conceptual designs for a new roundabout and queue road around the chassis yard and traffic analyses were also performed for three projected terminal growth scenarios: 1.8 Million Twenty-Foot Equivalent Units (TEUs), 2.5 Million TEUs, and 3.0 Million TEUs.

Entrance Road and Parking Lots Reconfiguration Project, St. Pete-Clearwater International Airport – Pinellas County, FL | Mr. Mansour served as a Design Engineer on this project which consisted of the reconfiguration and realignment of the existing $\frac{3}{4}$ mile long entrance road and the reconfiguration and expansion of the existing parking lots. The realignment of the major access roadway to the airport (Roosevelt Boulevard) and the explosive growth in number of passengers flying in and out of PIE were the driving forces behind this project. ICE served as a subconsultant and performed the entrance roadway/parking lots geometric design and layout and developed the overall construction sequencing plans for this project. ICE was also responsible for the design of the airport parking ticketing and toll plazas, technical specifications, and maintenance of traffic plans. The construction sequencing ensured continuous vehicular access to the terminal and parking areas with safe routes for pedestrians from the parking lots to the terminal building during construction.

PREVIOUS EXPERIENCE:

Internship – City of Largo, FL | Mr. Mansour served as a structural/construction intern and his responsibilities included reviewing structural designs and submittals from consultants and contractors. He also reviewed construction procedures, auger cast piles, micropiles, driven precast piles, steel installation, and concrete slabs installation. Mr. Mansour conducted various construction managements tasks such as scheduling values and pay applications, field and change orders, and work directive changes. He also worked with professionals on general civil engineering tasks such as sanitary sewer rehab process documents, conducted site surveying and analyzed data to execute civil engineering projects and performed data collection and statistical analysis that resulted in sound recommendations that were adopted by the department. Additionally, Mr. Mansour utilized AutoCAD software, produced drawings, maintained, archived and retrieved CAD files and drawing documents.



SAMEH MAXIMOS, PE

Technical Production

Mr. Maximos has more than 20 years of experience in civil engineering planning, design and project management of aviation projects at commercial service and general aviation airports. He has been responsible for numerous design teams on projects ranging from aviation authorities to state DOTs, including new and rehabilitated runways and parking aprons.

EDUCATION:

MS, Information System Management, Keller Graduate School of Management (2002) | BS, Civil Engineering, Ain Shams University (1991)

EXPERIENCE:

Career: 2000 – Present
ICE: 2019 – Present

REGISTRATION:

Professional Engineer:
LA #PE.0036521
GA #PE036131

EXPERIENCE:

Aviation Engineering/Architecture Services for Airport Development Projects, Livingston Executive Airport – Livingston Parish, LA | Mr. Maximos serves as the Lead Engineer for this project which includes providing program development services for the justification, design, and construction of a new airport in Livingston Parish, Louisiana known as the proposed Livingston Executive Airport. His responsibilities include design of all aspects of the airport including entrance road, apron, taxiway, and runway. This project includes a Justification Study for the proposed airport to enter the FAA's National Plan of Integrated Airport Systems (NPIAS), a feasibility study and preliminary engineering report for the proposed airport site airport master plan update; website development, community engagement and stakeholder engagement meetings; environmental analysis and permitting; architectural project visioning and conceptual design (including 3D renderings and fly throughs of the recommended airport concept); architectural preliminary

building facilities design; engineering airport development and design; and Benefit-Cost Analysis (BCA). It is anticipated that the airport will be constructed and open within the next five years.

Airfield Pavement Rehabilitation, False River Regional Airport – New Roads, LA | Mr. Maximos served as a civil engineer responsible for providing construction administration and inspection support. This project consists of full-depth reconstruction, milling and overlay on runway 18-36 and connector taxiways, runway 18-36 full-depth repairs, parallel taxiway sealcoat, and pavement markings.

Perimeter Fencing, DeQuincy Industrial Airpark – DeQuincy, LA | Mr. Maximos serves as Construction Project Manager responsible for overseeing construction administration and inspection services. This project consists of replacing and installing approximately 17,000 linear feet of 6' chain link fence, new dual swing gates, and clearing and grubbing a 20' wide path.

New Terminal Apron and Fuel Farm, Marion County Airport – Buena Vista, GA | Mr. Maximos served as Project Manager and Engineer of Record providing engineering design services for the new ± 8,600 square yard Apron and Fuel Farm. The project will include a 35-foot-wide partial parallel taxiway tying to existing taxiway turnaround at Runway 32 End, and a stub taxiway connecting the new apron. The project will be tied to the road with a new driveway and parking.

Obstruction Removal Design, Dr. CP Savage Sr. Airport – Montezuma, GA | Mr. Maximos, serving as Project Manager, led the preparation of construction drawings and specifications for the design of obstruction removal at the airport and managed the bidding and procurement processes. His responsibilities also included providing construction observation and administration services for the project.

Runway 8-26 Extension, Burke County Airport – Waynesboro, GA | As Project Manager and Engineer of Record, Mr. Maximos provided a fast-tracked design which included plans and specifications for the additional 1,000' x 75' extension and taxiway turnarounds to meet the expedited schedule of GDOT and the Governor's program. The project also required the removal of obstruction berm, drainage, wetland mitigation, and the replacement of the runway lighting system.

Project Manager Case Study – The following case study illustrates Mr. Maximos' experience in issue resolution, providing leadership in a project team environment, and demonstrates his ability to reach consensus

Sameh Maximos, PE | Technical Production

and resolve issues. The Runway 8-26 Extension project at Burke County Airport was an accelerated project due to the funding timeline provided by the Governor of Georgia. The Project Manager was handed a 90% complete project that had been designed six years earlier. He started the project by meeting with the client to understand the Airport's needs, not only for this project but for other current issues and future projects. When he received the proposed Statement of Work from GDOT, he evaluated what he had and proposed a change of scope to benefit the Airport and its safety, as well as reduce the cost for future projects. After extensive deliberation with GDOT, a consensus was reached to implement the scope change. Meanwhile, the design was progressing concurrently so as to not miss deadlines. On the project design side, the PM conducted weekly progress meetings, mitigating conflicts between the disciplines and between old and new designs to follow current standards, while continuously updating the stake holders on the progress.

Runway 14-32 Pavement Rehabilitation, New Runway Lighting, and a Perimeter Fence, Marion County Airport – Buena Vista, GA | Mr. Maximos served as Project Manager and Engineer of Record providing engineering design services for the rehabilitation of all of the airfield pavement. The Project included a crack relief interlayer and GDOT – 400 resurfacing. His responsibilities also included overseeing construction of the three projects at 82A, which will improve the airport's safety operations.

Crack Seal and Remarketing of Runway 18-36, Dr. C P Savage Sr. Airport – Montezuma, GA | As Project Manager, Mr. Maximos managed the preparation of construction documents, bidding, procurement, and provided construction administration services for the completion of the Project. This Project involves the repair of Runway 18-36 by means of sterilizing, routing, cleaning, and sealing cracks found on the 4,220' x 75' asphaltic runway. The Project also included the replacement of runway pavement markings.

Runway 9L Taxiway and Pavement Replacement, Hartsfield-Jackson Atlanta International Airport – Atlanta, GA | Mr. Maximos, Deputy Project Manager, was responsible for the development of the design for taxiway and pavement replacement of Runway 9L to coordinate with the future end around taxiway grading.

Crack Seal, Shoulder Removal and Remarketing of Runway 15-33, Plantation Airpark – Sylvania, GA | As Project Manager, Mr. Maximos managed the preparation of construction documents, bidding, procurement, and provided construction administration services for the completion of the project. This project involves the repair of Runway 15-35 by means of sterilizing, routing, cleaning, and sealing cracks found on the 3,787' x 75' asphaltic runway. The project also included the removal of the taxiway shoulders and replacement of pavement markings.

Taxiway “B” South Reconstruction, Baton Rouge Metropolitan Airport – Baton Rouge, LA | As Project Manager, Mr. Maximos managed the replacement of the southern portions of Taxiway “B” to correct runway separation. He also provided technical support and construction administration for the demolition and full depth reconstruction of the 2,700 LF asphaltic concrete taxiway, taxiway lighting improvements, and partial runway rehabilitation. He provided proactive project coordination with airfield stakeholders including the City, LaDOTD, and FAA to implement a smooth construction approach to minimize impacts to airfield operations.

Taxiway “A” South Construction, South Lafourche Leonard Miller, Jr. Airport – Galliano, LA | As Project Manager, Mr. Maximos provided technical support for the design team and oversaw the construction observation and administration of 4,300 LF of the new asphaltic concrete parallel taxiway and two 400 LF sections of new taxiways connector.

Taxiway Extension, DeQuincy Industrial Airpark – DeQuincy, LA | Mr. Maximos, serving as Project Manager and Engineer of Record, was responsible for the design and preparation of construction documents for this 1,700 LF asphaltic concrete parallel taxiway extension. He provided construction observation and administration for this project which also included environmental permitting, wetland mitigation, and major storm system design.

Taxiway Extension, Fuel Farm and an AWOS, DeQuincy Industrial Airpark – DeQuincy, LA | Mr. Maximos, Project Manager and Engineer of Record, was responsible for design and preparation of construction documents. He also specified requirements for the fuel farm and the AWOS system. Mr. Maximos provided

Sameh Maximos, PE | Technical Production

construction observation and administration for the three projects. The 1,700 LF asphaltic concrete parallel taxiway extension included environmental permitting, wetland mitigation, and major storm system design.

Drainage Rehabilitation, False River Regional Airport – New Roads, LA | As Project Manager, Mr. Maximos was responsible for project management and administration, design, construction supervision, and inspection for the installation of inlet aprons, pipe replacement, structure repair, and complete system evaluation. He also provided close coordination with LaDOTD and FAA staff to successfully integrate the design requirements and expectations to improve a worsening drainage problem on the airfield.

Pavement Defects Evaluation, False River Regional Airport – New Roads, LA | Mr. Maximos served as Project Manager and provided project management and technical support to survey, evaluate, recommend and report on the pavement condition in general and on defective areas in particular.

Runway 13-31 and Taxiway “B” North Rehabilitation, Baton Rouge Metropolitan Airport – Baton Rouge, LA | As Project Manager, Mr. Maximos managed the rehabilitation of a 7,000 LF runway and a 4,300 LF taxiway, the reconstruction of a 700 LF taxiway and the construction of a new 200 LF asphalt connector. He also provided technical support and construction administration for the project. Provided proactive coordination with airfield stakeholders including the City, LaDOTD and FAA, to implement a construction approach to minimize impacts to airfield operations.

Taxilane Construction and Perimeter Fence, South Lafourche Leonard Miller, Jr. Airport – Galliano, LA | Mr. Maximos served as Project Manager providing project management and administration, design, and construction supervision for a new 600 LF asphaltic concrete taxilane connector, including pavement design, drainage, and marking. The project also included a full new perimeter fence.

MoDOT Bridges Safe and Sound Project – Statewide, Missouri | Mr. Maximos performed analysis and design, along with preparation of the construction documents for a set of bridges out of the 802 new or improved/replaced bridges. He utilized MicroStation and ProjectWise.

Taxiway “A” North Paving, South Lafourche Leonard Miller, Jr. Airport – Galliano, LA | Mr. Maximos, Project Manager, was responsible for providing general project administration, construction supervision and inspection for the 2,900 LF of a new asphaltic concrete parallel taxiway and 1,200 LF of new connector taxiways project.

Rehabilitate and Expand South Air Carrier Apron Phase II, Baton Rouge Metropolitan Airport – Baton Rouge, LA | As Project Manager, Mr. Maximos provided technical support and construction administration for a 50,000 SF concrete apron with underdrain system.

Terminal Area Roads and Service Roads, Ras Abu Abboud Motorway and Approach Interchange, New Doha International Airport – Doha, Qatar | Mr. Maximos served as Civil Engineer responsible for preparing preliminary engineering drawings and supporting calculations for the transportation drawings, roadways plan and profile sheets, ROW limits, road modifications at approach interchanges, bridge structural drawings with plans, elevation and sections. He also designed the drainage ditches and the collection system. The British and AASHTO standards were utilized in the design with adaptation of the local Qatari standards.

Hartsfield-Jackson Atlanta International Airport – Atlanta, GA | As Designer, Mr. Maximos' responsibilities included site grading for the re-routing of underground power tunnel with plan and profiles for the duct-banks, mitigating differences in the design with the architectural firm and achieved confirmation from both sides. Mr. Maximos also performed architectural work and layouts for Atlanta airport auxiliary buildings, and Bank of America offices. He conducted site inspection and survey for Atlanta airport electrical system and prepared corresponding engineering drawings and single line diagram drawings. He acted as liaison between senior engineers and CADD technicians across different disciplines and performed projects file system set up and maintenance.



MIKE ALLEN

Technical Production

Since 1991, Mr. Allen has been providing roadway design services. He has worked directly with project managers and project engineers in roadway design. He has been responsible for efficiently maintaining various aspects of civil design projects while ensuring adherence to design standards through the use of MicroStation, GEOPAK and FDOT Site Menu. Mr. Allen has roadway design experience in Florida, Tennessee, and South Carolina.

EXPERIENCE:

West Apron Expansion, Destin-Fort Walton Beach Airport – Okaloosa County, FL | This Project will enlarge the West Apron at VPS in order to create additional ground loading apron spaces and overflow rest overnight (RON) space for aircraft to base overnight for early flights when all of the existing spaces with jet bridges are full or otherwise under exclusive lease by another airline. ICE is working with Airport staff and the FAA to finalize apron dimensions and develop detailed site development plans including airfield pavement structural design, geometrics, markings, lighting requirements, and other aircraft support infrastructure required (tie-downs, ground points, electrical or other infrastructure for ground power units, etc.). Mr. Allen served as a Designer for the planning, design, and production of plans for this Apron Expansion Project.

Taxiway “N” Reconstruction, Daytona Beach International Airport – Daytona Beach, FL | This project consisted of the total reconstruction of the existing 2.5-mile-long Taxiway “N” (and Taxiway “A”) with reconfigured edge of pavement geometry, paved shoulders widened from 25' to 30' in width, installation of a new storm water drainage system, and the installation of new LED taxiway edge lights at the Daytona Beach International Airport (DAB). ICE served as a subconsultant and is performing the taxiway horizontal geometric design and layout and developing the overall construction safety and phasing plans for the Project. Mr. Allen served as a Designer and is responsible for quantity calculations and Construction Phasing Plan revisions for this project.

Apron Expansion, Punta Gorda Airport – Punta Gorda, Florida | Mr. Allen served as a Designer for the planning, design and CAD production of plans for this Apron Expansion Project at the Punta Gorda Airport which is experiencing rapid growth with Allegiant Air. The project scope included professional engineering services to expand the aircraft parking aprons north of the existing apron to add three additional aircraft parking spaces for the Airbus A319/A320/A321 and 737-800 aircraft. Originally designed with a blast fence for power-in power-out operations, only two positions were originally obtainable so the airport directed ICE to revise for straight in operation with tug push back. The apron consists of a combination of asphalt and concrete in varying thicknesses for taxiway (4” asphalt/ 14” limerock), aircraft parking (15” concrete 6” recycled conc. base), and ground service equipment (concrete 6” recycled conc. base). Drainage was accomplished by the use of trench drains outfalling to a pipe network and then to a retention pond. These positions were remote from the terminal, requiring a covered walkway to all three positions.

Taxiways “C,” “D,” and “E,” Sebastian Municipal Airport – Sebastian, FL | Mr. Allen served as a Designer for the planning, design, and production of plans for a new ADG II parallel taxiway to Runway 5-23. A safety concern exists at the airport with aircraft entering and exiting the Runway 5 threshold in that they must cross active runways three times when taxiing from the busy MRO tenant area. One of these crossings involves the intersection of both runways, providing difficult visibility for pilots at this uncontrolled airport. The design included the removal of the taxiway connector that crosses both runways, a west parallel taxiway to 5-23 (Taxiway “C”), a partial parallel to the east (Taxiway “D”), and a partial parallel to Runway 10-28 (Taxiway “E”). Major components of the design included geometric design to new FAA AC 150/5300-13A fillet and radii standards,

EDUCATION:

Associate Degree in
Computer Aided Drafting
and Design, United
Electronics Institute (1991)

EXPERIENCE:

Career: 1991 – Present
ICE: 2016 – Present

PUBLICATIONS

USED IN PLAN

PRODUCTION:

- FDOT Plans Preparations Manual Volumes 1 & 2
- FDOT Design Standards
- FDOT CADD/CPCH Standards Manual
- FDOT Drainage Manual
- FDOT Basis of Estimates Manual
- FDOT Specifications Manual
- AASHTO Green Book
- MUTCD Manual

Mike Allen | Technical Production

stormwater ponds and relocation of existing infield drainage, Environmental Resource Permit from SJRWMD, and airfield guide signs (entire airport).

T-Hangar Replacement, Sarasota Bradenton International Airport – Sarasota, Florida | Serving as a Designer, Mr. Allen was responsible for plans production, quantities, and production submittals. The clear door width for the set of buildings was 41.5' x 12'. Each building is a standard (stacked) configuration consisting of 14 units (28 total). Also included in this project were two larger hangar buildings (J-7 and J-8) to the south of Taxiway F. The clear door width for these buildings will be wider than J-4 and J-5 at 47.5' x 14'. Special, larger end units were designed on each of the two buildings with a clear door width of 51' x 16'. At this width, J-7 can accommodate 12 units and J-8 can accommodate 15, both with a nested configuration. Site work consisted of the removal of the asphalt pads under the Port-a-Port buildings, new drainage pipes, and the relocation of the taxilanes to line up with the new doors. On the buildings, manufactured by Erect-a-Tube, ridge vents were provided for air circulation, exterior building mounted LED lights were provided for taxilane illumination, and door types were bifold.

Wando Welch Terminal Traffic Flow Improvements, Phase I – Charleston County, SC | Mr. Allen served as a Designer and provided CAD services and coordination efforts for this traffic flow improvements project that consists of providing engineering services to increase traffic throughout the terminal and to help improve traffic safety. The design includes installation of an additional truck lane from the outbound processing Building 441 to the outbound security gate on Long Point Road, expansion of the outbound security gate, extension of the inbound truck queue lanes at Building 401, installation of a new parking lot at Building 442, parking lot modifications, a new driveway at Building 448, and a new paved driveway to Building 419. Conceptual designs for a new roundabout and queue road around the chassis yard and traffic analyses were also performed for three projected terminal growth scenarios: 1.8 Million Twenty-Foot Equivalent Units (TEUs), 2.5 Million TEUs, and 3.0 Million TEUs.

Entrance Road and Parking Lots Reconfiguration Project, St. Pete-Clearwater International Airport – Clearwater, FL | Mr. Allen served as a Designer responsible for the design of a relocated airside perimeter road due to the widening of Roosevelt Blvd. and the Pinellas Gateway Project. Terminal Parking improvements encompassed the entire site, with a complete reconfiguration. As a major subconsultant to another firm, he was responsible for the Maintenance of Traffic (MOT) Plans. Also, the performance-based specifications for the toll plaza relocation and covered new canopy.

I-77 Widening & Rehabilitation (MM 15-27) – Richland County, SC | ICE was the Primary Design Consultant responsible for successfully delivering all engineering services required for this Design-Build (DB) project. The work involved widening the interstate by adding one lane in the median in each direction for seven miles to include widening of 10 mainline bridges over roadways and streams. This section also included rehabilitation of an asphalt overlay with a concrete base and cross slope verification/correction. The work also included eight additional miles of pavement rehabilitation and cross slope verification/correction of southbound lanes. The pavement throughout the project consisted of asphalt overlay with a concrete base. Mr. Allen served as a Roadway Designer responsible for assisting in the development on the maintenance of traffic plans for this interstate widening project.

SR 580 (Hillsborough Avenue) – Tampa, FL | Mr. Allen served as a Roadway Designer responsible for the drafting of plans to produce FDOT roadway milling and resurfacing plans, including key sheet, typical sections, plan & profile, cross sections, drainage structures, signing & marking sheets and signal sheets.

Knights Griffin Road – Plant City, FL | Mr. Allen served as a Roadway Designer responsible for the production of design plans using MicroStation, GEOPAK and FDOT Software to produce Hillsborough County Roadway Plans. The plans included key sheet, typical sections, general notes, plan & profile, cross sections, utility adjustments, signing and marking sheets and quantity calculations/computation book.

Bruce B. Downs (CR 581)/131st Street Intersection Improvement Project – Tampa, FL | Mr. Allen served as a Roadway Designer responsible for the production of design plans using MicroStation, GEOPAK and FDOT Software to produce Hillsborough County Roadway Plans. The plans included key sheet, typical sections, plan & profile, cross sections, utility adjustments, signing and marking sheets, traffic counts and quantity calculations/computation book.



MARTY MORLAN, PE, ENV SP

Stormwater

Mr. Morlan has more than three decades worth of experience in the planning, design, and construction of a wide variety of civil engineering projects (over 175 projects) including transportation, civil/site, stormwater master planning/design, recreational trail and park development. He has strong project management and design experience, including extensive roadway, drainage, and permitting experience. Mr. Morlan has been responsible for all phases of transportation projects from the initial planning and studies, through the final design and permitting as well as during the construction phase. Throughout his diverse career, he has been responsible for preparing preliminary design; conducting various drainage and roadway evaluation studies; preparing final design plans, construction plans, and permit documents; preparation of stormwater studies and designs; providing cost estimating and bid evaluations; coordinating subconsultants; conducting public meetings; providing utility coordination; performing post-design services during construction; performing project management duties; and providing quality control reviews. He provides a unique understanding of issues faced by local governments and agencies, having spent almost ten years of his career with Pinellas County government in the Engineering Division where he managed consultant projects, managed in-house design teams for transportation and stormwater capital improvement

EDUCATION:

BS, Civil Engineering,
University of Florida
(1987)

EXPERIENCE:

Career: 1988 – Present
ICE: 2021 – Present

REGISTRATION:

Professional Engineer:
FL #45326
Envision Sustainability
Professional (ENV SP)

projects. He has filled a wide variety of roles as a project manager, engineer, and quality control reviewer for projects/governments. Mr. Morlan also has served clients with expert witness testimonies, GEC project manager, as well as local agency plan reviews for FDOT.

EXPERIENCE:

Miscellaneous Stormwater Consultant Contract, City of Tarpon Springs – Pinellas County, FL | Mr. Morlan managed this miscellaneous contract which included 6 task assignments ranging from preparing an update to the City's stormwater masterplan (Stormwater Action Plan) which included the development of proposed stormwater solutions/projects for 36 problem areas throughout the city and costs as well and developing a 6-year CIP for implementation. Additional assignments included preparing construction plans and performing analysis of multiple stormwater alternatives (ponds, pipes, structures, etc.) throughout the city.

Rockport Terminal Facility - Miscellaneous Stormwater Services for Water Quality Monitoring, CSX Transportation – Tampa, FL | Mr. Morlan performed a stormwater analysis and prepared an ICPR hydrologic/hydraulic model to aid in the design of an outfall control weir (20 feet long) which was designed as a flow measure device (with v-notch). The stormwater model was used to simulate a 100-year storm event to ensure that no flooding of existing buildings/structures would occur as a result of the addition of the outfall control weir structure.

GEC Stormwater Review, I-275 in Tampa and I-75 through Pasco County, FDOT District 7 – Districtwide, FL | Mr. Morlan performed groundwater mounding analysis review for the FL Department of Transportation's drainage department for design-build projects. The review was conducted on multiple stormwater facilities in close proximity to legacy hazardous material properties.

Gerdau Baldwin Steel Mill Floodplain Mapping – Duval County, FL | Mr. Morlan served as Engineer of Record for the stormwater evaluation and floodplain map revision of this 850-acre steel mill site in western Jacksonville. To support the proposed steel mill expansion, prepared an ICPR stormwater model of the subject property to determine the 100-year floodplain elevation for the property. The model development included calibration using Tropical Storm Debbie (17 inches rainfall/72 hours) Services included: stormwater modelling, City of Jacksonville permitting, preparation of a FEMA FIRM Letter of Map Revision (LOMR).

**EDUCATION:**

BS, Civil Engineering,
University of South
Carolina (2002)

EXPERIENCE:

Career: 2000 – Present
ICE: 2015 – Present

REGISTRATION:

Professional Engineer:
SC #25825
FL #68106
GA #PE033053
MS #18543
NC #034242
TN #112312

OTHER TRAINING:

- FHWA Urban Drainage Design
- FHWA River Engineering for Highway Encroachments
- DTM Solutions: GEOPAK Drainage Training Class
- 2D Hydrodynamic Flow and Transport with Surface-Water Modeling System

PROFESSIONAL ORGs:

- Member, American Society of Civil Engineers
- Member, SC Association of Stormwater Managers

LAUREN WARMUTH, PE**Stormwater**

Ms. Warmuth began her engineering career in 2000 and specializes in drainage design and stormwater management. She designs all aspects of highway drainage systems and is well-versed in a variety of hydrologic/hydraulic modeling software, including HEC2, HEC-RAS, HEC-GeoRAS, HEC-HMS, Hydraflow, FESWMS, WSPRO, XP-SWMM, GEOPAK Drainage, StormCAD, CivilStorm, HY-8, HYCHL, and TR-55. Ms. Warmuth is also proficient in sediment and erosion control design as required by NPDES regulations and has experience with the SEDCAD sedimentology computer model. Additionally, her experience consists of designing numerous water quality BMPs including dry detention ponds and infiltration ponds.

EXPERIENCE:

Greenlawn Streetscape – City of Beaufort, SC | This project, awarded under the City of Beaufort IDC, consisted of widening the existing roadway to provide on-street parking, installing sidewalks, storm drainage improvements, street lighting, and landscaping along Greenlawn Street. Ms. Warmuth served as a Senior Water Resources Engineer responsible for stormwater system design, OCRM permitting, and drainage and erosion control plans.

Office Park Road at Pope Avenue and New Orleans Road – Hilton Head Island, SC | This project consisted of the intersection improvements at Office Park Road, Pope Avenue and New Orleans Road and included the addition of a signalized intersection, widening New Orleans Road approach from four lanes to five lanes, widening Office Park Road from three lanes to four lanes and widening south bound Pope Avenue from five lanes to six lanes and retaining the north bound Pope Avenue section at its current 6-lane configuration. Ms. Warmuth served as a Hydraulic Engineer responsible for the stormwater management design that included sedimentation and erosion control design.

38th Avenue North – Myrtle Beach, SC | Ms. Warmuth served as a Project Engineer and performed hydrologic and hydrographic analysis for this road widening project in Myrtle Beach. She designed stormwater drainage facilities using Hydraflow Storm Sewers and SWMM. The Project included road widening from a three-lane shoulder section to a five-lane curb and gutter section. The project consisted of widening a section of 38th Avenue North between US-17 Bypass and Robert Grissom Parkway to five lanes. This project also included a turn lane, bike lanes, and sidewalks.

Extension of I-20 South Frontage Road – Vicksburg, MS | Ms. Warmuth served as Project Engineer and performed hydrologic and hydraulic analyses in accordance with the MDOT Stormwater Management Plan as part of a roadway project to connect two frontage roads over Old Highway 27 and the KCSRR. The extension of an existing box culvert at Durden Creek was also analyzed using HY-8 software. The proposed drainage and erosion control features were a key factor in developing right-of-requirements due to the significant roadway fill heights and the associated benching requirements.

I-26 Widening (MM 85-101), Segments 1, 2, & 3 – Richland, Lexington, & Newberry Counties, SC | This 16-mile widening, and reconstruction Design-Build project consists of widening I-26 from four to six lanes for approximately 12 miles and from four to eight lanes for approximately four miles. It also includes three new interchanges and eight overpasses. Ms. Warmuth is responsible for providing roadway drainage design reports to

Lauren Warmuth, PE | Stormwater

include field investigations, NPDES permitting, outfall summaries, and channel designs. She is also preparing the roadway drainage design reports to include updates to preliminary drainage design, bridge deck drainage calculations, GeoPAK drainage and Hw/D summaries, storm sewer system for 50-year storm event, sediment and erosion control designs, water quality and post construction designs and supporting documentation.

Replacement of Five Bridges on I-20 – Aiken County, SC | ICE is providing turn-key engineering design services, as a subconsultant, on I-20 East Bound and West Bound lanes over South Edisto River as a part of an I-20 Bridge Replacement Contract that includes five bridge sites. Bridge analysis and HEC-RAS modeling over the river are being performed in accordance with the SCDOT Requirements for Hydraulic Design Studies. Ms. Warmuth is serving as a hydraulic engineer responsible for modeling the bridges to determine the hydraulic opening, scour, and associated roadway drainage. This project will require FEMA coordination.

Ripley Station Road Bridge Replacement – Lexington County, SC | Ms. Warmuth is serving as a senior hydraulic engineer responsible for reviewing the bridge hydraulic model and risk assessment report. This project consists of the design services necessary to replace the bridge over Rawls Creek and associated roadway approaches on Ripley Station Road in Irmo. The ICE Team will provide surveying, environmental permitting, geotechnical design, preliminary and final design and plans, utility coordination, and construction support services.

I-95 South Bound over Bagshaw Swamp and I-95 South Bound over SC 46 – Jasper County, SC | Ms. Warmuth is serving as a senior hydraulic engineer responsible for field investigations aiding in the hydraulic design and the quality control of the proposed bridges. The ICE Team will provide project management, field surveys, environmental documentation and permitting, subsurface utility engineering (SUE), bridge/structural design and plans development, roadway design and plans development, geotechnical investigations and reports, hydraulic design, hazardous material survey and reports, utility coordination and plans development, and construction phase support services. The new bridges will accommodate two 12-foot travel lanes and appropriate shoulders. The proposed bridge over Bagshaw Swamp will be approximately 120 feet in length, and the proposed bridge over SC 46 will be approximately 160 feet in length.

Clements Ferry Road Widening, Phase II – Berkeley County, SC | This project consists of widening Clements Ferry Road for approximately 4.5 miles from Jack Primus Road to SC 41. The improvements involve widening the two-lane roadway to a four-lane curb and gutter section with a raised planted median and multi-use path along one side of the roadway. The project also includes construction of a new bridge over Martins Creek and the widening of an existing bridge over an unnamed tributary. This stretch of roadway has a current ADT of 14,200 and includes four signalized intersections. Ms. Warmuth served as a Senior Hydraulic Engineer responsible for reviewing the storm drainage plans and bridge hydraulic model.

Mossy Oaks Watershed Study – City of Beaufort/Town of Port Royal, SC | Ms. Warmuth serves as a senior drainage engineer for the analysis of widespread flooding issues in the Mossy Oaks district in the City of Beaufort and Town of Port Royal. This Project, awarded under the City of Beaufort IDC, involves hydraulic modeling of drainage infrastructure within a 700-acre developed watershed, which will be accomplished using the CivilStorm hydrodynamic flood routing and analysis software. Since the Project is located within a tidal zone, it is also necessary to determine storm surge flooding effects within the watershed. She is providing QA/QC services on the design of the two-dimensional hydrodynamic model of Beaufort River and Battery Creek. This two-dimensional model is being developed using the Surface-Water Modeling System (SMS) software and accepted surge analysis methodologies to model the impacts of extreme tropical storm events on the watershed.

Ride III Dirt Road Paving Project Group 1 – Horry County, SC | ICE is serving as a subconsultant to the primary design firm on this Dirt Road Paving Project which consists of the permitting, design, right of way acquisition, and construction management of the first group of County dirt roads to be paved (25 miles) identified in the 2016 Capital Project Sales Tax referendum. Ms. Warmuth is serving as a Hydraulic Engineer and is responsible for leading the drainage design and QA/QC.

**EDUCATION:**

BS, Biology, Liberty University (1977) | Diploma, Sanitary Engineer, International Correspondence Schools (1967) | Diploma, Highway Engineer, International Correspondence Schools (1965)

EXPERIENCE:

Career: 1961 – Present
ICE: 2013 – Present

CERTIFICATIONS:

- Certified Senior Engineering Technician, 1979
- Certified Master Modeler – “Stormwater Systems”; Haestad Methods, 2003
- Certificate of Mastery – Completed 30-Hours of Website Training for modeling with XP-SWMM software; XP-Software, Inc., 2008

BOB STEELE, SET**Stormwater**

Mr. Steele is responsible for technical support and design of storm drainage systems, including hydrological studies, storm water management plans, flood studies and general activities as associated with bridge replacement assignments, roadway design, aviation, and land development/sitework projects. Mr. Steele has conducted numerous in-house Hydrology and Hydraulic training seminars for drainage design engineers and designers as well as SCDOT. The training seminar included the use of HEC-RAS, XP-SWMM for selected engineers and designers. During 2006, he was invited to work with XP-Software in “beta testing” the newest version of XP-SWMM.

EXPERIENCE:

I-77 Widening & Rehabilitation Project (MM 15 to MM 27) – Richland County, SC | The work involved widening the interstate by adding one lane in the median in each direction for seven miles to include widening of 10 mainline bridges over roadways and streams. This section also included rehabilitation of an asphalt overlay with a concrete base and cross slope verification/correction. The work also included eight additional miles of pavement rehabilitation and cross slope verification/correction of southbound lanes. The pavement throughout the project consisted of asphalt overlay with a concrete base. Mr. Steele served Senior Hydrologist and performed drainage analysis of the existing culverts using HY-8 and XP-Storm. By using XP-Storm he was able to include the upstream storage to account for “real-time” conditions. All analyses were checked for conformity to current SCDOT requirements. Additionally, he built several XP-Storm dynamic models of existing storm sewer systems to check the design more accurately.

S-107 (Alligator Road) Widening – Florence County, SC | This seven-mile project includes widening from a two-lane rural roadway to a three-lane section segment from US 76 to S-103 and to a five-lane curb and gutter section with sidewalk from S-103 to west of US 52. This project also includes replacing the existing structures over I-95 and Alligator Branch Swamp Tributary and major intersection improvements at the US 52 intersection. Mr. Steele serves as a Senior Hydraulic Designer and is responsible for assisting with drainage calculations for this project.

I-85 Widening (MM 80 to 96) – Spartanburg and Cherokee Counties, SC | Mr. Steele assisted in a detailed drainage study and report of the existing drainage systems for this interstate widening project. This project consisted of the development of the Environmental Assessment and Design-Build preparation for widening approximately 16 miles of interstate. Along the approximately 16-mile project area, interchanges at Exit 83 – Battleground

Road (SC 110), Exit 87 – Green River Road (S-39), Exit 95 – Pleasant School Road (S-82), and Exit 96 – Shelby Highway (SC 18) were modified to bring them into compliance with state and federal design requirements. The project also included adding a travel lane in each direction, improving various interchanges and exit ramps, and replacement of overpass bridges. This project was separated into three sections.

River’s Street Drainage Study – Colleton County, SC | Mr. Steele developed the final design and completion of construction drawings of the drainage systems associated with this roadway improvement project. Several channel hydraulic problems required the use of HEC-RAS. StormCAD was used for Final Design and Analysis of the Storm Drainage Systems.

Bob Steele, SET | Stormwater

Northside and Future Drive, Bluehouse Swamp – North Charleston, SC | This residential subdivision is located just south of Walterboro, South Carolina. The subdivision's roadway system consists of side ditches and driveway pipe culverts for their drainage system. The roadside ditches drain to a collector ditch that is located through the subdivision – from street to street. This section of the county discharges to a private pond before discharging into a swamp. Mr. Steele developed a XP-Storm model of this system of pipe culverts and ditches and the pond. This model was able to show the problem areas and thus by correction to the model.

8th Avenue Improvement Project – Aynor & Horry County, SC | Mr. Steele provided final design and completion of construction drawings of the drainage systems associated with this roadway improvement project that included numerous detention basins for stormwater management. Several channel hydraulic problems required the use of HEC-RAS. The detention basins required the use of PondPack, a flood routing program for the design of the basins. StormCAD was used for Final Design and Analysis of the Storm Drainage Systems.

P-1501 (Walterboro Bypass) – Walterboro, SC | Final design and completion of construction drawings of the drainage systems associated with this roadway improvement project. Built XP-SWMM model of proposed complex drainage system, to utilize the programs capability of calculating and using the storage volume in the large roadside ditches.

SC-120 (Alice Drive) – Sumter, SC | Final design and completion of construction drawings of the drainage systems associated with this roadway improvement project. The adjacent area is fully developed and to be able to provide stormwater management, the proposed storm drainage system has to provide storage for the roadway widening runoff. An XP-SWMM model was developed to analyze the conveyance and required storage for the runoff from the new widening project.

US 25 (3rd Phase) – Greenville, SC | Mr. Steele was the senior designer responsible for hydrological and hydraulic studies relating to project drainage requirements. This project included numerous detention basins for stormwater management. At several locations, right-of-way could not be obtained for the required detention basin, therefore XP-SWMM was used to model the storm drainage systems to incorporate storage in the pipe systems. This resulted in a benefit to the SCDOT of eliminating several offsite detention basins and the maintenance associated with the basins.

U.S. Route 301 – Bamberg, SC | This Town, located in the southeastern part of the state, has been built in a large depression. The drainage outfalls from this Town, drain by a large channel to a river 2-miles north of the town and by a large channel to a swamp 2-miles south of the town. During tropical storm events, a large portion of the Town is flooded and remains flooded for several days following the storm event. U.S. Route 301 has been closed for several days due to the flooding. Using field survey, provided by the SCDOT, 3 large XP-SWMM models were built to analyze the existing drainage systems. These models were used to re-design the existing systems to provide an adequate drainage system, eliminating the flooding. Typical design criteria were used to design a new roadway storm drainage system for U.S. Route 301. The major outfall channel systems were re-designed to be able to convey the runoff from the Town's watersheds.

Red Bay Road Improvement Project – Sumter County, South Carolina | Developed HEC-2/HEC-RAS model of Turkey Creek, an existing FEMA regulated stream, for new bridge widening crossings. Ran model and computer new floodway. Prepared new hydrology study for this HEC-2/HEC-RAS study. Used SCS and USGS Regression Methods to generate runoffs for comparison with FEMA and Corps of Engineers published runoff.

US 25 Widening (Phase 1) – Greenville, SC | Mr. Steele was the senior designer responsible for hydrological and hydraulic studies relating to project drainage requirements. Studies included a flood plain study, utilizing HEC-2, SWMM/EXTRAN, and several storm sewer programs for analyzing the Hydraulic Grade Line.

Sarah Brammell

Senior Ecologist

Qualified Airport Wildlife Biologist



Sarah is an environmental professional with over 20 years of experience and leadership in natural resources, environmental issues in aviation, environmental permitting, NEPA documentation, and wildlife hazard management. Through her combined aviation experience as the previous Sr. Manager of Planning and Environmental Compliance with Lee County Port Authority and 13 years of aviation consulting, Sarah provides clients with innovative approaches to environmental planning and permitting projects. She is a leader in providing project management and ecological expertise in National Environmental Policy Act (NEPA) projects and Wildlife Hazard Management.

Project experience includes local, state, and federal wildlife and wetland permitting and mitigation, environmental planning/airport master plans, Environmental Assessments (EAs), Categorical Exclusions (CATEX), listed species assessments and agency consultation. Sarah has provided wildlife hazard management services for commercial service, general aviation airports, and the U.S. Air Force Air National Guard Bird/Aircraft Strike Hazard (BASH) program. Projects include Wildlife Hazard Assessments, Wildlife Hazard Management Plans, Wildlife Hazard Site Visits, 14 CFR Part 130 Airport Personnel Training, and BASH site visits and training. Ms. Brammell's project experience has spanned the U.S. (in all major regions) and internationally.

Tampa International Airport, FL
Miami International Airport, FL
Orlando International Airport, FL
Southwest Florida International Airport, FL
St. Pete-Clearwater International Airport, FL
Ocala International Airport, FL
Jacksonville International Airport, FL
Cecil Airport, FL
Lakeland Linder Regional Airport, FL
Page Field Airport, FL
Gainesville Regional Airport, FL
Okeechobee County Airport, FL
Arcadia Municipal Airport, FL
Flagler County Airport, FL
North County General Aviation Airport, FL
Lantana Airport, FL
Malcolm McKinnon Airport, GA
Brunswick Golden Isles Airport, GA
Indianapolis International Airport, IN
International
Ottawa Macdonald-Cartier International Airport - Canada
Mexico City International Airport (Texcoco Location) - Mexico

SW Georgia Regional Airport, GA
Middle Georgia Regional Airport, GA
Valdosta Regional Airport, GA
Louis Armstrong New Orleans International Airport, LA
Atlantic City International Airport, NJ
Victoria Regional Airport, TX
Arlington Municipal Airport, TX
Mesquite Metro Airport, TX
Fort Worth Spinks Airport, TX
East Texas Regional Airport, TX
Redding Municipal Airport, CA
Sacramento International Airport, CA
Redlands Municipal Airport, CA
Kona International Airport, HI
Molokai Airport, HI
Kahului Airport, HI
Dayton-Wright Brothers Airport, OH
Pittsburgh International Airport, PA

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Expertise

Wildlife Hazard Assessments,
Wildlife Hazard Management Plans,
Wildlife Hazard Site Visits, Airport
Staff Training

Natural Resource Management
Environmental Permitting &
Planning

Listed-Wildlife Species

Education

M.P.A. Environmental Policy -
Florida Gulf Coast University (2008)

B.A. Biology - Susquehanna
University (1996)

Certifications/Training

Qualified Airport Wildlife Biologist
Authorized Gopher Tortoise Agent
& Burrowing Owl Registered Agent
National Highway Institute
Introduction to NEPA and
Transportation Decision-making
ACI-NA Certificate in Airport
Environmental Management
National Rifle Association -
Firearms Safety Instructor

Professional Organizations

Bird Strike Committee USA -
Executive Committee Member
Airports Council International -
North America - Co-Chair Natural
Resources Working Group
Florida Airport Council - Past
Environmental Committee Chair





EDUCATION:

MS, Environmental Health
(Health Science Water
Quality), University of
South Carolina (2000) | BS,
Wildlife Biology, Clemson
University (1995)

EXPERIENCE:

Career: 1998 – Present

ICE: 2017 – Present

**CERTIFICATIONS /
TRAININGS:**

- FHWA-NHI NEPA & Transportation Decision-Making
- SCDHEC CEPSCI
- Applied Fluvial Geomorphology-Rosgen Level 1
- Comprehensive NEPA Community Impact Assessment
- Environmental Justice, and Public Involvement Training
- 40-hour Basic Wetland Delineation Course
- 24-hour Interagency Consultation for Endangered Species Course

BARRETT STONE

NEPA/Environmental Assessments

Mr. Stone has experience providing environmental services for a variety of projects throughout South Carolina. His expertise includes NEPA documentation, environmental permitting, and environmental compliance among other environmental related services. Mr. Stone's daily tasks include preparation of Environmental Assessments and Categorical Exclusions, biological assessments, review and interpretation of environmental technical reports, coordination with appropriate state and federal officials, public involvement, wetland delineations, threatened and endangered species assessments, preparation of jurisdictional determination submittals, permit submittals, mitigation planning, and acquisition of applicable Section 404 permits and State 401 Certifications. Prior to the consulting industry, Mr. Stone worked for the South Carolina Department of Health and Environmental Control (SCDHEC) for over six years where he served as an Aquatic Biologist performing stream biological surveys, water quality investigations, and fish tissue collection. He also developed and implemented water quality studies, investigation of non-point source pollution, biological monitoring (fish and macro-invertebrate), and prepared reports.

EXPERIENCE:

Butler Road Improvements – Greenville County, SC | Mr. Stone serves as the Environmental Manager responsible for NEPA compliance including public involvement. The project area includes an EJ community that required extensive public outreach along with general public involvement. Strategies and material utilized included various mailers, newsletters, signage, strategic community meeting, Spanish translation, a virtual public meeting, and an in-person meeting that was conducted in compliance with COVID-19 protocols at the time. The project consists of improving approximately 1.5 miles of existing roadway including construction of a sidewalk and multi-use path.

I-26 Widening (MM 85-101) Final Design and QC Inspection/Testing – Richland, Lexington, and Newberry Counties, SC | Mr. Stone is serving as the Environmental Manager responsible for NEPA compliance and acquisitions of the applicable Section 404/401 permits. This includes preparation of a NEPA re-evaluation; preparation/acquisition of an individual Section 404 permit from the US Army Corps of Engineers and a 401 Water Quality Certification from SC Department of Health and Environmental Control; and environmental compliance support during construction. This Design-Build project includes 16 miles of widening and reconstruction, three new interchanges, and eight overpasses north of Columbia from mile marker 85 to 101. This project will

reconstruct pavement, increase capacity, and upgrade interchanges and overpass bridges to meet state and federal design requirements. SCDOT intends to widen I-26 from four lanes to eight lanes from approximately Exit 101 (US 176) to just west of Exit 97 (US 176) and from four lanes to six lanes from just west of Exit 97 (US 176) to just west of Exit 85 (SC 202) in Richland, Lexington, and Newberry Counties. Interchanges will be improved at Exit 97 (US 176), Exit 91 (S-48), and Exit 85 (SC 202). Overpass bridges will be replaced at Koon Road, Shady Grove Road, Mt. Vernon Church Road, Old Hilton Road, Peak Street, Holy Trinity Church Road, and Parr Road. The weigh station at mile marker 94 westbound will also be upgraded.

US 17 Congestion & Infrastructure Study – Charleston County, SC | As an Environmental Planner, Mr. Stone provided direct environmental support and analysis in regard to numerous potential alternatives. Services provided include a comprehensive environmental review which includes data collection and an environmental

Barrett Stone | NEPA/Environmental Assessments

screening for potential project impacts such as wetlands and other waters of the U.S., natural resources, endangered species, hazardous waste and underground storage tanks, air quality, and Section 4(f) and 6(f). Mr. Stone is also providing public involvement support services throughout the duration of the project. This project consists of preparing a Congestion & Infrastructure Study on US 17. The study area is approximately three miles from Avondale Avenue at Savannah Highway, across the Ashley River Bridges and through the Crosstown to its connection with I-26 near Coming Street. It includes the intersections and interchanges with major arterials such as SC 61, Wesley Drive, Folly Road, Lockwood Boulevard and the James Island Connector.

US 17 at Main Road (S-20) Interchange Improvements and Main Road (S-20) Widening – Charleston County, SC | Mr. Stone serves as the Environmental Permitting Lead responsible for the preparation and submittal of the Section 404 wetland permit and associated critical area permit to the USACE and SCDHEC-OCRM, respectively. This project consists of providing engineering services necessary for the preparation of an Environmental Impact Statement (EIS), preliminary road and bridge plans, right of way plans, and final construction plans for roadways and bridges; traffic studies for constructing a grade separated interchange at US 17 and Main Road; widening Main Road and Bohicket Road from Betsy Kerrison Parkway at River Road to Bees Ferry Road; replacing the existing Main Road Bridge over the CSX Railroad; and constructing a shared use path from the West Ashley Greenway to Bees Ferry Road. In addition, existing flooding of Main Road between US 17 and CSX Railroad will be addressed.

Pathways Project – Beaufort County, SC | This project consists of the design services necessary for the addition of a 10' pathway along sections of roadways throughout the County. The purpose of this project is to help provide safe walking routes to schools and improved access to residential communities. The total length of the pathways is approximately 16.4 miles for the projects assigned to date. Mr. Stone serves as the Environmental Manager responsible for managing and delivering all environmental services including wetland delineations, jurisdictional determinations, and subsequent wetland permitting services.

Emergency Bridge Package 2018-1 – Orangeburg and Dillon Counties, SC | As the Environmental Manager, Mr. Stone provided NEPA compliance, acquisition of Section 404/401 permitting, and environmental compliance support during construction. This Design-Build (DB) project involved the replacement of three bridges including S-50 (Four Holes Road) over I-26 in Orangeburg County and S-45 (Lester Road) over Little Pee Dee River and Swamp in Dillon County. The original 266' S-50 Bridge (which was severely damaged by vehicular impact and subsequently demolished in March 2018) was replaced with a 2-span, 45" deep Florida I-Beam bridge with a cast-in-place concrete interior bent supported by pile footings and MSE walls in front of pile-supported integral end bents. The design allowed for 2 lanes of future widening in each direction of I-26 to the inside providing a 72' clear opening for both directions of traffic. The bridge replacements on S-45 consisted of prestressed hollow-cored slab superstructures with prestressed pile-supported interior bents at both sites. All three bridges required formal seismic analysis and design in accordance with the SCDOT Seismic Design Specifications, and the S-50 site required a pushover analysis.

Fred Nash Boulevard Widening and Extension – Horry County, SC | This project consists of widening Fred Nash Boulevard to a three-lane section and extending the roadway from its current termini to a proposed intersection with Harrelson Boulevard in Horry County. Mr. Stone is serving as the Environmental Manager responsible for environmental documentation and acquisition of applicable Section 404/401 permits.

SC 421 (Poplar Street/Augusta Road) Bridge Replacement over Little Horse Creek – Aiken County, SC | SCDOT has identified the need to replace the existing SC 421 Bridge over Little Horse Creek in Aiken County, which was originally built in 1957 and reconstructed in 1972. The existing bridge structure is a T-Beam concrete cast-in-place superstructure measuring 94 feet long by 64 feet wide. The existing bridge/approach is a four-lane curb and gutter section with no median and the sidewalks are less than five feet wide. Mr. Stone serves as the Environmental Manager responsible for the completion of a Categorical Exclusion NEPA document and the acquisition of the Section 404 individual permit. The Categorical Exclusion document was completed in 2019 and included de Minimis Section 4(f) evaluation, various environmental technical studies, and public involvement efforts.

**EDUCATION:**

BS, Environmental
Engineering, Louisiana
State University (2021)

EXPERIENCE:

Career: 2021 – Present
ICE: 2021 – Present

REGISTRATION:

Engineer-In-Training:
LA #0035015

CERTIFICATIONS:

NPDES Stormwater

Wade Hamilton, EI

Aviation Designer

Mr. Hamilton serves as an Aviation Designer for ICE's Baton Rouge office, working for airport clients throughout the state of Louisiana with an emphasis on environmental projects involving hydraulic modeling, environmental site assessments, and NEPA compliance. He has cultivated an understanding of FAA environmental policies and construction specifications as well as industry safety protocols and operational standards. Mr. Hamilton has experience tracking government funding and providing project management services. He is well-versed in ArcGIS, AutoCAD, Autodesk Civil 3D, EPANET, and HEC-RAS.

EXPERIENCE:

Perimeter Fence, Allen Parish Airport – Oakdale, LA | This project involved a preliminary site investigation, wetland delineation, and preparation of GIS figures to be used for environmental permitting applications. Mr. Hamilton served as a Junior Environmental Specialist for the field investigations and as a Designer for the preliminary design. He was responsible for assisted with delineating wetlands, preparing GIS figures, and CATEX documentation.

Airport Obstruction Removal Project, Allen Parish Airport – Oakdale, LA

| Serving as a Designer, Mr. Hamilton assisted in the preparation of a workplan for the clearing activities to present to the US Army Corps of Engineers. The scope included the identification of trees obstructing the navigable airspace and selection of an appropriate clearing method. Mr. Hamilton analyzed survey data pertaining to the trees and imaginary 3D surfaces representing the Airport's navigable airspace. He performed slope calculations and helped identify which trees needed to be removed.

T-Hangar Development, DeQuincy Industrial Airpark – DeQuincy, LA | Mr. Hamilton served as a Designer and assisted with the design of three t-hangar buildings and the associated pavements to access the site. Elements of the site development included hydraulic modeling, material volume calculations, and pavement design.

PREVIOUS EXPERIENCE:

Internship – Baton Rouge, LA | Mr. Hamilton served as an Aviation Design Intern for ICE's airport clients statewide. He focused on environmental disciplines including hydraulic modeling, geotechnical engineering, NEPA compliance, and wildlife mitigation. Mr. Hamilton conducted environmental assessments and tracked government funding sources and project timelines. He became abreast with FAA environmental policies and construction specifications and gained experience regarding design rationale and calculations.

Internship – Charleston, SC | Mr. Hamilton served as an Environmental Engineering Intern (II) for Meridian Energy & Environmental, LLC on a contracted project to conduct labelling and safety updates at a chemical manufacturing plant in collaboration with LANXESS Chemicals. In this role, he interpreted process and instrumentation diagrams pertaining to reactors, scrubber equipment, ventilation systems, and related machinery. Mr. Hamilton familiarized with on-site industrial safety protocols and operational standards.

Internship – Charleston, SC | Mr. Hamilton served as an Environmental Engineering Intern (I) for Meridian Energy & Environmental, LLC. During his internship, he designed a hydrogen peroxide-UV light water treatment system for local engine manufacturing clients. Mr. Hamilton also assisted the owner/principal with environmental consulting services and legalities and prepared Form R documentation for clients-based safety and product data sheets.

**EDUCATION:**

MS Construction Engineering
University of Florida

BS Civil Engineering
University of Florida

**PROFESSIONAL
REGISTRATION(S):**

Professional Engineer, FL
No. 78617

YEARS OF EXPERIENCE:

13

YEARS WITH AVCON:

12

PERCENTAGE AVAILABLE:

30%



BRANDON HIERS, PE, ENV SP

SENIOR CIVIL ENGINEER/PAVEMENT ENGINEER

Brandon Hiers, PE, ENV SP, serves as AVCON's Senior Pavement Engineer for airfield pavements from initial materials evaluation through construction administration and acceptance testing. He has been responsible for overall scope development for Airfield Pavement Management System (APMS) programs; in-field pavement evaluations; and modifications of standards to achieve optimal designs. Brandon has attended advanced materials courses with the Asphalt Institute and American Concrete Pavement Association and has successfully designed numerous airfield pavements utilizing both asphalt and concrete. He also serves as technical advisor on airport projects for the firm, ranging from major airfield rehabilitation projects to minor emergency repairs; airline gate, fueling and Passenger Boarding Bridge analysis; grading and drainage design; and utility adjustments. He has hands-on knowledge of FAA's FAARFIELD and COMFAA programs and is an expert at AVIPLAN, used to validate airfield geometry, simulate aircraft movements, and optimize apron utilization.

RELEVANT EXPERIENCE:**TAXIWAY F EXTENSION AND CONSTRUCTION OF TAXIWAY E**

Winter Haven Regional Airport, Winter Haven, FL | Project Engineer

This \$4.1M project consisted of extending Taxiway F to the Runway 5 and 23 ends, new construction of Taxiway E from the Runway 11 end to the intersection of Runway 5-23, and new blast pads on the Runway 5 and 23 ends. The electrical components of the project included new LED taxiway edge lights, cable and conduit, and signage. The project also included drainage improvements and markings.

RUNWAY 14-32 REHABILITATION

Valkaria Airport, Brevard County, FL | Project/Pavement Engineer

The objectives of this \$3.5M project were to extend the useful life of the existing pavements, to update the pavement geometry and to enhance the safety of air operations at the airport. Another component of the project involved installing a complete FAA Medium Intensity Runway Lighting (MIRL) system using LED technology for Runway 14-32. In addition, a new electrical vault with new electrical service connection was constructed. Existing runway threshold lights on Runway 10-28 were located and connected to the new electrical vault. The lighting, marking and signage was also replaced/upgraded for the future non-precision approach.

REHABILITATION RUNWAY 4-22

Zephyrhills Municipal Airport, Zephyrhills, FL | Project Manager

Pavement rehabilitation involved recycled stabilized base construction utilizing the existing pavement structure (asphalt and limerock) prior to a 4 in asphalt overlay. Additionally, an area of concrete in poor condition at the Runway 22 end was removed and crushed on site to create additional new base material. The runway numerals were adjusted from 4-22 to 5-23 to account for the current magnetic declination. The project also included rehabilitation of the runway lighting systems (upgrade to LED edge lights, threshold lights, and RELs), new signage, and the installation of two new 4-Box PAPIs, as well as marking and grooving of the runway. A new taxiway and hold apron were constructed to de-conflict the Runway 22 and Runway 18 ends to comply with geometric requirements of FAA AC 150/5300-13A.

REHABILITATION OF RUNWAY 6-24

Kissimmee Gateway Airport, Kissimmee, FL | Project Engineer

This \$2.8M project consisted of pavement and geometry analysis for rehabilitation of Runway 6-24 (5,000 x 150 ft); design provision for Runway 6 standard blast pad; airfield lighting, vault, and navigational aid analysis and design to consider future Runway 6 extension and LED versus Quartz/Halogen technology; temporary and permanent runway marking design; stormwater design and permit application; comprehensive land survey and geotechnical testing programs; comprehensive project and cost administration phase services; and FAA grant pre-application services.

Brandon Hiers, PE, ENV SP | Airfield Electrical**RUNWAY 5-23 REHABILITATION***Tampa Executive Airport, Tampa, FL | Project Engineer*

This \$5.9M project included a pavement condition evaluation, rehabilitation alternatives analysis, and design of an asphalt rehabilitation for Runway 5-23 and the associated connector taxiways. To address changes in the FAA geometric requirements, the taxiway connectors were reconstructed to modify the fillet geometry between Runway 5-23 and Taxiway E. In addition, all of the runway and taxiway edge lighting, REIL's, PAPI's, and MALSR were replaced and the electrical vault upgraded to accommodate the airfield electrical improvements.

INVESTIGATION OF RUNWAY 12-30 EXTENSION*Mercedita Airport, Ponce, PR | Project Engineer*

AVCON performed a preliminary inspection of the pavement at the Mercedita Airport. This included Runway 12-30 (6,900 ft x 150 ft), a single parallel taxiway, and two aprons. The commercial apron was constructed as a concrete pavement structure while all other facilities were constructed as asphalt pavement. The chronology of available aerial imagery indicates that no major rehabilitation has occurred for the concrete apron in over 20 years. The majority of the active runway was last rehabilitated in 2003 and the eastern half of the parallel taxiway was rehabilitated in 2006. A more recent project in 2010 rehabilitated the western runway extension and turn around; however this pavement has yet to be fully accepted and utilized due to issues arising from possible groundwater, construction materials, and/or construction methods. AVCON was tasked by the Puerto Rico Ports Authority with the evaluation of this specific area for determination of possible causes and remediation recommendations.

EAST AND WEST APRON REHABILITATION*DeLand Municipal Airport, DeLand, FL | Project Engineer*

This \$2.5 project includes the rehabilitation/reconstruction of the East and West Aprons that will be based on the Interim ALP Update (subject to FAA approval). A small section of the existing abandoned pavement will be removed as part of this project and the rest of the pavement will be rehabilitated/reconstructed for use as aircraft parking apron or taxilanes. Aircraft parking spaces will be identified, and tie-down anchors will be installed. Apron taxilanes will be delineated with pavement markings to meet the current FAA geometric requirements and eliminate "direct connect" issues with the runways. This will bring the pavements into compliance with the current FAA design standards per AC 150-5300-13A.

NORTH GENERAL AVIATION RAMP REHABILITATION*Naples Airport, Naples, FL | Project Engineer*

This \$2.2M project consists of rehabilitation of the flexible asphalt pavements of the North General Aviation ramp and taxilane areas located north, northeast, and east of the Terminal. Portland Cement Concrete aprons were designed around the T-hangars and other hangar buildings to keep flexible paving operations a safe distance away from the structures to prevent damage. The project included 95,000 SY's of asphalt pavement removal/milling and 12,000 tons of new asphalt placement.

RUNWAY 14-32 REHABILITATION*Valkaria Airport, Brevard County, FL | Project Engineer*

The objectives of this \$3.5M project were to extend the useful life of the existing pavements, to update the pavement geometry and to enhance the safety of air operations at the airport. Another component of the project involved installing a complete FAA Medium Intensity Runway Lighting (MIRL) system using LED technology for Runway 14-32. In addition, a new electrical vault with new electrical service connection was constructed. Existing runway threshold lights on Runway 10-28 were located and connected to the new electrical vault. The lighting, marking and signage was also replaced/upgraded for the future non-precision approach.



CARL JOHNSON, EC, ACE

SENIOR AIRFIELD LIGHTING SPECIALIST

Mr. Carl Johnson, EC, ACE, has 40+ years of experience in the planning, design, construction, and maintenance of electrical distribution systems and airfield lighting systems. For the last 32 years, his primary focus has been the design and construction/inspection of area lighting, airfield lighting and NAVAID systems. Mr. Johnson's background in construction and design experience on a wide variety of general aviation, military, and air carrier facilities gives him unique expertise in the planning and detailed design of lighting facilities. He has an extensive knowledge of NFPA, NEC, IES, FAA, and military standards. Mr. Johnson serves as a voting member on the IES Technical Committee for the Illuminating Engineering Society's Recommended Practice 37 (RP-37) Outdoor Lighting for Airport Environments. RP-37 provides FAA and industry recognized guidelines for lighting all aspects of an outdoor airport environment. Mr. Johnson has presented several papers on airfield lighting, electrical maintenance and electrical safety.

RELEVANT EXPERIENCE:

TAXIWAY G AND NEW ELECTRICAL VAULT

Ormond Beach Municipal Airport, Ormond Beach, FL | *Senior Airfield Lighting Specialist*
This \$4M project included design of a full-length taxiway Golf parallel to existing Runway 17-35. AVCON completed an Electrical Vault Study and report which included make and inventory of the existing electrical vault, load measurements of equipment and airfield lighting regulators and results. The new electrical vault included a 13 ft x 30 ft pre-cast concrete wall building, site constructed, with new Airport Lighting Control System (ALCS), regulators, conductors, main and auxiliary panels, main disconnects, and HVAC System. A new diesel-powered backup generator with support pad and appurtenances was also constructed.

RUNWAY 14-32 REHABILITATION

Valkaria Airport, Brevard County, FL | *Senior Airfield Lighting Specialist*
One component of this \$4M project involved installing a complete FAA Medium Intensity Runway Lighting (MIRL) system using LED technology for Runway 14-32. In addition, a new electrical vault with new electrical service connection was constructed. Existing runway threshold lights on Runway 10-28 were located and connected to the new electrical vault. The lighting, marking and signage was also replaced/upgraded for the

REHABILITATION OF RUNWAY 6-24

Kissimmee Gateway Airport, Kissimmee, FL | *Senior Airfield Lighting Specialist*
The project consisted of design and bid phase services, including pavement and geometry analysis for rehabilitation of Runway 6-24 (currently 5,000 ft x 150 ft); design provision for the Runway 6 standard blast pad; airfield lighting, vault, and navigational aid analysis and design to consider future Runway 6 extension and LED versus Quartz/Halogen technology; temporary and permanent runway marking design; storm-water design and permit application; comprehensive land survey and geotechnical testing programs; comprehensive project and cost administration phase services; and FAA grant pre-application services.

TAXIWAY F EXTENSION AND TAXIWAY E

Winter Haven Municipal Airport, Winter Haven, FL | *Senior Airfield Lighting Specialist*
The project consisted of extending Taxiway F to the Runway 5 and 23 ends, new construction of Taxiway E from the Runway 11 end to the intersection of Runway 5-23, and new blast pads on the Runway 5 and 23 ends. The pavement structure for all new pavements consisted of bituminous surface course on a limerock base course. The total asphalt quantity was approximately 7,225 tons of P-401 asphalt. The 10 ft-wide taxiway shoulders was constructed of compacted and stabilized subgrade. The electrical components of the project included new LED taxiway edge lights, cable and conduit, and signage. The project also included drainage improvements and marking new taxiway pavement and runway blast pads.

EDUCATION:

AS Computer Integrated
Manufacturing Valencia
Community College, 1992

PROFESSIONAL REGISTRATION(S):

Electrical Contractor, FL
No. EC13003002

Airport Certified Employee –
Airfield Lighting Maintenance, The
American Association of Airport
Executives (2008)

YEARS OF EXPERIENCE:

42

YEARS WITH AVCON:

21

AVAILABILITY:

35%

Carl Johnson, EC, ACE | Airfield Electrical**RUNWAY 4-22 REHABILITATION***Zephyrhills Municipal Airport, Zephyrhills, FL | Senior Airfield Lighting Specialist*

Pavement rehabilitation involved recycled stabilized base construction utilizing the existing pavement structure (asphalt and limerock) prior to a 4 in asphalt overlay. Additionally, an area of concrete in poor condition at the Runway 4-22 end was removed and crushed on site to create additional new base material. As part of the project, the runway numerals were adjusted from 4-22 to 5-23 to account for the current magnetic declination. The project also included rehabilitation of the runway lighting system (upgrade to LED edge lights, threshold lights, and REILs), new signage, and the installation of new 4-Box PAPIs, as well as marking and grooving of the entire runway.

REHABILITATION OF TAXIWAYS - PHASE 1*Orlando Executive Airport, Orlando, FL | Senior Airfield Lighting Specialist*

This project included the rehabilitation of the existing asphalt pavement, lighting, signage, and markings for Taxiway E and portions of Taxiways E, E4, E5, A, and B. The work also incorporated the reconstruction and realignment of Taxiway E6 and associated grading. This project was one of the first projects constructed in Florida per FAA AC 150/5300-13A (Change 1). Key project elements included milling approximately 24,000 SY of existing taxiway pavement; constructing approximately 11,500 SY of new full strength and shoulder taxiway pavement; placing 5,500 tons of P-401SP asphalt; re-aligning the Taxiway E6 centerline to improve safety; installing LED taxiway edge lights and LED signage; and replacing electrical manholes with safer, more efficient new junction can plazas.

ASSESSMENT OF EXISTING AIRFIELD LIGHTING AND AIRFIELD LIGHTING VAULT*Page Field General Aviation Airport, Ft. Myers, FL | Senior Airfield Lighting Specialist*

The project included a visual assessment of existing airfield lighting, signs, and vault at Page Field General Aviation Airport in anticipation of the program to upgrade and refurbish the existing lighting systems serving the airport. The goal of the project was to assess existing conditions, evaluate the requirements for upgrades or enhancements to the various systems, and prepare a series of conceptual estimates of the work. The purpose of this assessment was to bring the lighting system into conformance with current FAA regulatory standards and modern energy initiatives. Following the assessment, AVCON prepared a project report which defined the required upgrades and provided a basis for conceptual cost estimates to be used as part of the long-term, multi-phase airfield enhancement program. The airfield lighting vault assessment identified the incoming power system, regulators, emergency generator, and airfield lighting controls system and provided a general overview of building conditions to provide a framework for long-term implementation.

AIRFIELD LIGHTING VAULT STUDY*Perry Foley Airport, Taylor County, FL | Senior Airfield Lighting Specialist*

The project included a detailed field evaluation and electrical capacity assessment to identify the requirements needed to upgrade and refurbish airfield electrical improvements and the existing airfield lighting vault serving Perry Foley Airport. The project included a program to conduct a field evaluation and electrical capacity assessment of the lighting vault in order to establish the baseline operating parameters of the vault. These results enabled the team to make a detailed assessment of upgrade requirements and define the airfield electrical improvement project. The study also included evaluation of vault and beacon tower lightning protection.

REHABILITATION RUNWAY 9L - 27R*Cecil Airport, Jacksonville, FL | Senior Airfield Lighting Specialist*

Art performed design quality assurance reviews, provided construction administration phase services, and served as liaison to the Airport for this runway rehabilitation project. Construction consisted of demolition of two historic airplane arresting systems, de-coupling the pavement at the intersection with RW 18R – 36L, milling and resurfacing (M&R) 2-in of asphalt pavement for the 50-ft center keel of the runway, and M&R 1.5-inches for the 75-foot outer sides of the keel section. Also included were adjustments to the intersecting taxiway edge lighting, airfield signing adjustments, and re-painting the runway pavement markings.

RUNWAY 18L-36R REHABILITATION*Cecil Field, Jacksonville, FL | Senior Airfield Lighting Specialist*

This rehabilitation project consisted of removing and replacing the center 50-foot concrete keel section of pavement—500' at the 18L end and 5,000' at the 36R end. The project also included remarking the entire runway to current standards. A short construction schedule, 120 days, was implemented to reduce the amount of time the runway would be closed. The project was successfully completed on time due to the combined efforts of the Contractor, RPR, JAA Staff, VQQ staff, and the Engineer.



MARK GOODACRE, ACE

SENIOR ELECTRICAL DESIGNER

Mark Goodacre, ACE has more than 40 years of experience in the planning, design, construction, and maintenance of electrical distribution systems and airfield lighting systems. He is an AAAE Airport Certified Employee (ACE) in the field of Airfield Lighting Maintenance, and he serves as an instructor for the Florida Airports Council's (FAC) Basic Airfield Electrical Safety Workshop. He has experience preparing design documentation for an airfield's lighting layout and circuitry for all associated Runways, Taxiways and Parking Aprons. Additionally, he has special expertise in 3D modeling. Mark's extensive airfield lighting and NAVAID experience includes work at VQQ, MCO, SFB, Patrick Air Force Base, and AVL.

RELEVANT EXPERIENCE:

EDUCATION:

AS Mechanical Engineering
State University of New York -
Farmingdale

PROFESSIONAL REGISTRATION(S):

Airport Certified Employee (ACE)
Airfield Lighting Maintenance
(AAAE)

YEARS OF EXPERIENCE:

41

YEARS WITH AVCON:

20

AVAILABILITY:

35%

EAST AND WEST APRON REHABILITATION

DeLand Airport, DeLand, FL | *Senior Electrical Designer*

This \$2.5M project includes the rehabilitation/reconstruction of the East and West Aprons that will be based on the Interim ALP Update (subject to FAA approval). A small section of the existing abandoned pavement will be removed as part of this project and the rest of the pavement will be rehabilitated/reconstructed for use as aircraft parking apron or taxilanes. Aircraft parking spaces will be identified, and tie-down anchors will be installed. Apron taxilanes will be delineated with pavement markings to meet the current FAA geometric requirements and eliminate "direct connect" issues with the runways. This will bring the pavements into compliance with the current FAA design standards per AC 150-5300-13A.

REHABILITATE, MARK AND LIGHT RW 18-36

Wauchula Regional Airport, Wauchula, FL | *Senior Electrical Designer*

This \$2.2M project comprised rehabilitating Runway 18-36 as well as standard Blast Pad design provisions, Medium Intensity Runway Light (MIRL) rehabilitation, REIL units, Airfield Lighting Vault study and necessary modifications, Navigational Aids (PAPI-4) analysis and design to consider LED technology, temporary and permanent Runway Marking design, stormwater and environmental review design, and obstruction clearing in both approaches per the latest AMPU.

TAXIWAY G AND NEW ELECTRICAL VAULT

Ormond Beach Municipal Airport, Ormond Beach, FL | *Senior Electrical Designer*

This \$4M project included design of a full-length taxiway Golf parallel to existing Runway 17-35. AVCON completed an Electrical Vault Study and report which included make and inventory of the existing electrical vault, load measurements of equipment and airfield lighting regulators and results. The new electrical vault included a 13 ft x 30 ft pre-cast concrete wall building, site constructed, with new Airport Lighting Control System (ALCS), regulators, conductors, main and auxiliary panels, main disconnects, and HVAC System. A new diesel-powered backup generator with support pad and appurtenances was also constructed.

TAXIWAY B RECONSTRUCTION

Zephyrhills Municipal Airport, Zephyrhills, FL | *Senior Electrical Designer*

This project primarily consisted of rehabilitating Taxiway B which was 5,150 ft x 35 ft. The project was divided into two separate bid schedules (to address AIP eligible and non-AIP eligible work). Bid Schedule A consisted of removal of existing asphalt surface course and limerock base course of Taxiway B (35 ft wide); placement of new P-401GY (4 in) asphalt over 6 in P-211 Limerock base course; fillet widening at the Taxiway B/Taxiway A intersection; new construction at the Taxiway B/Runway 1-19 intersection; new airfield markings; new LED lighting; and new LED signage. Bid Schedule B comprised removal of existing limerock and asphalt (outside 35 ft wide Taxiway B limits) near the Terminal Ramp; placement of new P-401GY (4 in) asphalt over 6 in P-211 Limerock base course; and crack sealing and seal coating the remaining Taxiway B pavement outside the reconstruction limits.

Mark Goodarce, ACE | Airfield Electrical**RUNWAY 14-32 REHABILITATION***Valkaria Airport, Brevard County, FL | Senior Electrical Designer*

One component of this \$4M project involved installing a complete FAA Medium Intensity Runway Lighting (MIRL) system using LED technology for Runway 14-32. In addition, a new electrical vault with new electrical service connection was constructed. Existing runway threshold lights on Runway 10-28 were located and connected to the new electrical vault. The lighting, marking and signage was also replaced/upgraded for the future non-precision approach.

NEW ELECTRICAL VAULT LIGHTING DESIGN*Kissimmee Gateway Airport, Kissimmee, FL | Senior Electrical Designer*

AVCON was responsible for the design of the building electrical/lighting and sizing of vault equipment and ALCS system. AVCON also provided an electrical site plan to indicate the power services lines, transformer pad locations, generator housing, control cable (hardware or fiber optic), airfield homeruns, etc. Some specific elements of the project included: electrical service for the airfield lighting vault which powers both the vault and ATCT; energy efficient LED lighting throughout the facility; grounding/lightning protection including a complete UL master label lightning protection system; a complete, addressable fire alarm and mass notification system; and a L-890 Airfield Lighting Control and Monitoring System (ALCMS) to monitor and control the constant current regulators, airport beacon, utility power and generator power systems.

REHABILITATION OF RUNWAY 6-24*Kissimmee Gateway Airport, Kissimmee, FL | Senior Electrical Designer*

The project consisted of design and bid phase services, including pavement and geometry analysis for rehabilitation of Runway 6-24 (currently 5,000 ft x 150 ft); design provision for the Runway 6 standard blast pad; airfield lighting, vault, and navigational aid analysis and design to consider future Runway 6 extension and LED versus Quartz/Halogen technology; temporary and permanent runway marking design; storm-water design and permit application; comprehensive land survey and geotechnical testing programs; comprehensive project and cost administration phase services; and FAA grant pre-application services.

TAXIWAY F EXTENSION AND TAXIWAY E*Winter Haven Municipal Airport, Winter Haven, FL | Senior Electrical Designer*

The project consisted of extending Taxiway F to the Runway 5 and 23 ends, new construction of Taxiway E from the Runway 11 end to the intersection of Runway 5-23, and new blast pads on the Runway 5 and 23 ends. The pavement structure for all new pavements consisted of bituminous surface course on a limerock base course. The total asphalt quantity was approximately 7,225 tons of P-401 asphalt. The 10 ft-wide taxiway shoulders was constructed of compacted and stabilized subgrade. The electrical components of the project included new LED taxiway edge lights, cable and conduit, and signage. The project also included drainage improvements and marking new taxiway pavement and runway blast pads.

RUNWAY 4-22 REHABILITATION*Zephyrhills Municipal Airport, Zephyrhills, FL | Senior Electrical Designer*

Pavement rehabilitation involved recycled stabilized base construction utilizing the existing pavement structure (asphalt and limerock) prior to a 4 in asphalt overlay. Additionally, an area of concrete in poor condition at the Runway 4-22 end was removed and crushed on site to create additional new base material. As part of the project, the runway numerals were adjusted from 4-22 to 5-23 to account for the current magnetic declination. The project also included rehabilitation of the runway lighting system (upgrade to LED edge lights, threshold lights, and REILs), new signage, and the installation of new 4-Box PAPIs, as well as marking and grooving of the entire runway.

RUNWAY 9R MALSR*Cecil Airport, Jacksonville, FL | Senior Electrical Designer*

This project consisted of technical planning assistance, survey and base drawings, engineering design, specifications, scheduling, cost estimating, bidding, and construction phase services in connection with the installation of a Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) for Runway 9R. The project included siting, site preparation, utility service coordination, clearing and coordination with FAA to ensure a fully functional system.



RICHARD OSBORNE, CM, ACE

Planning

Mr. Osborne serves as a Vice President of Aviation Planning for ICE supporting aviation projects throughout the Southeast. He is responsible for the production of aviation planning projects including master plans, airport layout plans, statewide system plans, benefit-cost analyses, Part 77 surface evaluation, runway length analyses, conceptual airport development plans, and various specialty studies. He assists with the project review process to ensure that the product delivered to clients is consistent, correct, and continuously improving. Mr. Osborne manages the planning staff in concert with the client and subconsultants to coordinate planning efforts; FAA Advisory Circular compliance; and design of airport facilities, projects, and programs. He is involved in the preparation of plans, reports, staff guidance, proposal preparation, and business development. Prior to joining ICE, Mr. Osborne served as the Director of Planning & Engineering for the Roanoke Regional Airport & Commission in Virginia and the Airport Director at for the City of Winter Haven in Florida. This experience from various locations provides him extensive knowledge of the aviation industry that he utilizes for his clients and the products he delivers.

EDUCATION:

BS, Professional Aeronautics, Aviation Safety (Minor), Embry-Riddle Aeronautical University (2002)

AS, Architectural Design and Construction Technology, Hillsborough Community College (1995)

EXPERIENCE:

Career: 1993 – Present

ICE: 2021 – Present

REGISTRATIONS:

AAAE Certified Member (CM)
AAAE Airport Certified Employee
(ACE – Part 139 Operations)

CERTIFICATIONS/TRAINING/LICENSES:

FAA Private Pilot's Certificate
FAA Small UAS Certificate
Airfield Lighting Training
Florida Real Estate License

EXPERIENCE:

Customs & Border Patrol Point of Entry Study, Brooksville-Tampa Bay Regional Airport – Brooksville, FL | The Airport wanted to investigate the feasibility of establishing a point-of-entry through the implementation of a Customs & Border Patrol Point (CBP) facility. As Project Manager, Mr. Osborne coordinated with CBP personnel, reviewed available guidance, and performed an analysis of potential revenues versus expenses to determine financial feasibility. The forecast of activity and revenues determined that this facility would likely require subsidization with airport finances.

Runway Length Justification Study, Daytona Beach International Airport – Daytona Beach, FL | The FAA required a runway length evaluation of the Airport's main runway, Runway 7L-25R, to determine whether tangible evidence existed to warrant partial or full funding of the rehabilitation. Historical operational data gathered from the FAA's Air Traffic Activity Data System (ATADS) and from the Bureau of Transportation Statistics (BTS) was utilized to determine that a length ranging between 8,100 and 8,800 feet was required. As a result, the pending maintenance project for the full runway length was funded by the FAA. Mr. Osborne served as Senior Planner and Project manager of this effort.

Master Plan Update, Sarasota International Airport – Sarasota, FL | Serving as Project Manager, Mr. Osborne was responsible for the production and oversight of the various master plan elements at the Airport. Mr. Osborne coordinated with team consultants, tenants, airport staff, and staff to gather and share project information to recommend improvements which would allow the Airport to accommodate the anticipated demand throughout the 20-year planning period. Some of the recommended improvements included the re-alignment of taxiways to comply with FAA standards, new rental car off-site facility, commercial apron expansion, and provisions for additional commercial hangar facilities.

Master Plan Update, Tallahassee Regional Airport – Tallahassee, FL | Mr. Osborne served as Senior Airport Planner responsible for the Master Plan Update. Alternatives were taken from the Master Plan Report and integrated into an ALP set and a subsequent Financial Plan showing phasing and cost estimates for all projects scheduled during the 20-year planning period. Grants, Passenger Facility Charges (PFC), and local funds were

Richard Osborne, CM, ACE | Planning

allocated to fund various projects and the costs were then integrated into the Airport's financials to show financial deficits and surpluses.

Hillsborough County General Aviation Master Plan Updates – Hillsborough County, FL | Mr. Osborne served as Project Manager and provided oversight for the development of master plan updates for three general aviation (GA) airports: Peter O. Knight Airport (TPF), Tampa Executive Airport (VDF), and Plant City Airport (PCM). The updates assessed the operational efficiency, effectiveness, and safety of each airport; evaluated the airfield configuration, layout, and circulation for conformance with FAA guidance and regulations; developed a business plan that identifies the potential for new revenue generating sources within each airport's existing and/or ultimate property boundaries; evaluated and incorporated the aviation needs of both airport users and the surrounding communities; and assessed the needs of current tenants and requirements necessary to attract new tenants and/or to expand facilities.

Runway 4-22 Airplane Reference Code (ARC) and Runway EMAS Evaluation, Sarasota-Bradenton International Airport – Sarasota, FL | The crosswind runway, Runway 4-22, lacked the needed safety area to accommodate the activity that regularly utilized the runway. Mr. Osborne serving as Project Manager and performed an in-depth analysis of the Airport's operational activity to establish the runway's takeoff and landing length requirements to determine if threshold displacement was a viable option. He was responsible for the oversight and analyses of upgrading an existing general aviation runway from a B-II to a D-II while providing adequate safety area through use of an Engineered Material Arresting System (EMAS). Due to the frequent operations by the Canadair Regional Jet, the resulting analyses determined the only feasible solution that would preserve the runway's takeoff and landing lengths by incorporating the Engineered Material Arresting System (EMAS) at both runway ends.

A380 Implementation Strategy Project, Miami International Airport – Miami, FL | Serving as Aviation/Planner, Mr. Osborne was responsible for determining the most economically feasible improvement alternatives to accommodate the A380 at Miami International Airport. Two separate runway alignments were evaluated along with their respective taxi routes. Alternatives and cost estimates were developed to provide adequate runway and taxiway requirements as indicated in FAA Engineering Briefs #63 and #65.

Passenger Parking Lot Reconfiguration, Roanoke-Blacksburg Regional Airport – Roanoke, VA | Mr. Osborne served as Director of Planning & Engineering and coordinated closely with the civil engineer to reflect changes and improvements to the Airport's main passenger terminal parking facility. The parking lot had not been renovated in many years and was in dire need of rehabilitation and reconstruction. The newly renovated lot included a repositioned toll booth, a roundabout entrance road, and a new cell phone lot.

Consolidated Rental Car (CONRAC) Facility, Roanoke-Blacksburg Regional Airport – Roanoke, VA | Utilizing customer facility charge funding, the Airport constructed a CONRAC facility to be located east of the existing terminal facility. The facility included offices, lighting, HVAC, electrical, plumbing, and signage improvements. Serving as Director of Planning & Engineering, Mr. Osborne was responsible for project oversight which included coordination, budget, schedule, and final inspection.

Airfield Signage and Lighting Project, Roanoke-Blacksburg Regional Airport – Roanoke, VA | As Director of Planning & Engineering, Mr. Osborne coordinated with the Airport's engineering consultant to develop and modify plans, specifications, and ultimately the bid advertisement to select a construction contractor. Prior to the start of construction, Mr. Osborne also coordinated closely with the FAA tower and all airline and cargo operators to inform them of planned closures and night construction activity.

Building 51 Renovation Project, Roanoke-Blacksburg Regional Airport – Roanoke, VA | The Airport purchased a 50,000 square foot building that was located adjacent to the existing property boundary. A large portion of the main floor of the building was renovated for a future tenant. The Project included reconfiguration of the interior, electrical improvements, data cabling, carpet, tile, security access, and two white noise systems. Mr. Osborne served Director of Planning & Engineering and was responsible for project oversight.

Richard Osborne, CM, ACE | Planning

Concourse A Renovation, Piedmont Triad International Airport – Greensboro, NC | Mr. Osborne served as Director of Planning and worked closely with a large team of consultants to perform various planning tasks for the renovation. These tasks included a detailed aircraft parking and hold room analyses with slope calculations along with the development of multiple schematic drawings.

Master Plan Update, Myrtle Beach International Airport – Myrtle Beach, SC | As Director of Planning, it was Mr. Osborne's responsibility to work closely with the Airport and allocate the resources needed to complete each task on-time and within budget. Current improvement plans include a runway extension, reconfigured parking and access, terminal and concourse expansion, commercial aeronautical development, and land acquisition.

Terminal Gate Utilization and Space Study, Myrtle Beach International Airport – Myrtle Beach, SC | Serving as Director of Planning, Mr. Osborne conducted a thorough evaluation of the terminal space and compared it against the Airport Cooperative Research Program (ACRP) 25 – Airport Passenger Terminal Planning and Design. As a result of this analysis, detailed space needs were identified for various areas of the Airport including hold room, ticket offices, ticket counters, circulation space, restrooms, concessions, and other space needs by type.

New Heliport, Annie Penn Hospital – Reidsville, NC | Mr. Osborne, Director of Planning, worked closely with hospital staff to plan for a new hard surface helicopter landing facility. The study included the analyses 77 surfaces, the identification of obstructions to be lighted or removed, and preliminary construction cost estimates.

Corporate Hangar and Apron Construction, Mount Airy/Surry County Airport – Mount Airy, NC | As Inspector for construction of this corporate hangar project, it was Mr. Osborne's responsibility to ensure that the contractor complied with the plans and specs as needed for a quality product. The Project included substantial grading, drainage improvements, lighting relocation, hangar erection, and apron construction.

Drainage Improvements Project, South Lafourche Leonard Miller, Jr. Airport – Galliano, LA | Serving as Airport Manager, Mr. Osborne worked closely with the civil engineer to implement a project to resolve various drainage issues that presented after heavy precipitation events. A plan was developed to divert water in different directions through site grading improvements and to improve drainage flow through the installation by removing vegetation within existing drainage areas and by installing new culverts for improved water flow.

Airport Lighting & Signage Project, South Lafourche Leonard Miller, Jr. Airport – Galliano, LA | As the Owner's Representative, Mr. Osborne coordinated closely with the Airport Engineer to provide input on the development of plans and specs for the advertisement for a construction contractor. After the selection of such, Mr. Osborne acted as the Onsite Representative providing construction oversight needed for staging, airfield access, in-field changes, and punch list items.

ADG-VI Airfield Upgrades Benefit Cost Analysis, Huntsville International Airport – Huntsville, AL | The Madison County Executive Airport Authority (MCEAA) desired a benefit cost analysis (BCA) for the purpose of justifying up to \$80 Million in discretionary funding to upgrade the existing airfield to accommodate the 747-800 (ADG-VI) aircraft. The BCA concluded that the improvements would provide a benefit ratio of 1.0 or greater and were therefore deemed financially justifiable. Mr. Osborne served as Manager of Operations – Aviation Planning responsible for the BCA that was approved by the FAA.

Runway End Siting and Obstruction Analysis, Baton Rouge Metropolitan Airport – Baton Rouge, LA. | Obstructions that were once located within the approach paths of Runways 4L and 22R required that the thresholds be displaced to provide adequate clearance. The airport staff had removed many of these obstructions and the Airport desired an updated survey to reevaluate the approaches to determine whether the thresholds could be relocated closer to the runway ends for additional landing length capability. Mr. Osborne served as Project Manager responsible for this extensive planning effort. After evaluating multiple man made and vegetative obstacles in relation to FAA, FAR, and TERPs criteria, it was determined that some tree removal was required prior to relocating the thresholds to the end of usable pavement.

Richard Osborne, CM, ACE | Planning

Master Plan Update, Columbia Metropolitan Airport – Columbia, SC | Serving as Deputy Project Manager, Mr. Osborne was responsible for the inventory, facility requirements, and ALP set components. During the facility requirements analysis, it was discovered that the main runway did not comply with FAA line of sight standards. Additional improvements included taxiway widening, apron expansions, and relocation of the airport's general aviation facilities to a new complex located on the south side of the Airport. In addition, provisions were made for relocation of the airport's Air Traffic Control Tower and Air Rescue and Fire Fighting (ARFF) facilities.

Aircraft Gate Utilization and Ramp Re-Marking Plan, Greenville Spartanburg International Airport – Greer, SC | The Airport replaced/upgraded 12 of their passenger boarding bridges and prompted staff to evaluate their new passenger boarding bridge performance capabilities to develop an updated aircraft parking and apron marking plan. This study evaluated each of the Airport's existing 13 gate locations (9 gates on Concourse A and 4 gates on Concourse B). Mr. Osborne served as Senior Airport Planner responsible for the new development plan that included the addition of three additional aircraft parking positions and striping plans that denoted the wheel stop locations, blast areas, and aircraft exterior silhouette markings.

Establishment of LPV Approach Procedures, Seven C's Ranch Airport – Freer, TX | The owner of a private airport desired to implement Lateral Performance with Vertical (LPV) guidance approach procedures to each runway end such that it could be accessed during IFR conditions. An Aeronautical survey was conducted and uploaded to the FAA's AGIS website in accordance with Advisory Circulars 150/5300-16A, 17C, and 18B. Mr. Osborne, Senior Airport Planner, developed an ALP style plan along with an approach evaluation. He coordinated with both the FAA and the owner to get the new procedures implemented and published.

ATCT Tower Shadow and Line of Sight Study, Hammond Northshore Regional Airport – Hammond, LA | Due to increases in activity by larger aircraft, the Airport received a grant to construct an Airport Traffic Control Tower. To identify a suitable location and cab floor height, a shadow analysis was conducted by Mr. Osborne, Senior Airport Planner, performed technical analysis and served as the point of contact to the Airport Manager. Due to Airport's ILS system, the tower height and location was also compared to the TERPS surfaces for impacts. Ultimately, a location and height were identified, and the project moved forward to the design phase.

Runway Reconstruction and Taxiway Analysis Study, McGhee Tyson Airport – Knoxville, TN | A prior evaluation of Runway 5L-23R revealed that the profile did not conform to FAA line of sight standards and therefore posed a potential safety threat that could only be resolved through reconstruction. The new grades and slopes associated with the runway's reconstruction would ultimately affect all taxiways leading to the runway. For this reason, the Metropolitan Knoxville Airport Authority (MKAA) requested that the Airport's entire taxiway network be re-evaluated to identify improvements needed to improve access, capacity, efficiency, or safety. The methods and guidance provided in FAA Engineering Brief 75 (EB75) guided the proposed locations and alignments of development of preliminary concepts that were produced for the MKAA's review and comment. Mr. Osborne served as Senior Airport Planner responsible for project management, technical analysis, and client coordination. Meetings between the MKAA and FAA ATCT personnel were held to review the alternatives and to discuss methods to facilitate smooth traffic flow during construction. Based on the various analyses and meetings conducted, a preferred development concept and accompanying narrative report was developed and included preliminary engineering cost estimates.

Taxiway Widening/Temporary Runway Utilization, Chennault International Airport – Lake Charles, LA | Serving as Project Manager, Mr. Osborne reviewed the geometrical runway design standards to identify potential obstructions that could impact the utilization of Taxiway 'A' as an 8,000' temporary runway. He was also responsible for preparing detailed alternatives that were developed and presented to the Airport for their review and evaluation. As a result, a preferred alternative was identified that the Chennault International Airport Authority (CIAA) would continue to pursue in the future via design and construction.

Airport Overlay District, Lancaster County Airport McWhirter Field – Lancaster, SC | Mr. Osborne served as Senior Airport Planner responsible for developing an airport overlay district to restrict development adjacent to airport property that could otherwise negatively affect the airport's approach procedures or ability to extend its runways in the future. The overlay district ensured that compatible land uses were developed adjacent to the

Richard Osborne, CM, ACE | Planning

Airport's property and the runway ends. Once submitted, the overlay district was adopted by the County and is now defined in Sec. 3-43, Sec 3-44, and Sec. 3-45 of Lancaster County's Code of Ordinances.

Gate Utilization Study, McGhee Tyson Airport – Knoxville, Tennessee | Mr. Osborne served Senior Airport Planner responsible for the study that created an updated aircraft parking plan. The purpose of the study was to gather accurate structural location and gate performance data to develop a plan that allowed the Metropolitan Knoxville Airport Authority (MKAA) to maximize the utilization of the concourse for aircraft parking, remain overnight (RON) parking, and for power-in/power-out operations. The layouts were developed under the assumption that the gates would be managed in a more efficient common-use arrangement in the future.

Master Plan Update, Tyler Pounds Regional Airport – Tyler, TX | Serving as Senior Airport Planner, Mr. Osborne was responsible for the development of the airport's financial implementation plan and capital improvement program (CIP). He worked closely with the airport director and accounting department to retrieve financial information and to understand the flow of finances. An accurate financial plan forecast, cash flow analysis, and phasing plans were developed to provide the Airport with a vision of future projects and their associated impacts on the finances.

Hangar Feasibility Study, Anderson Regional Airport – Anderson, SC | Serving as Senior Airport Planner, Mr. Osborne created a development plan to construct T-hangars, corporate hangars, and large commercial hangars to make use of a \$2.5 Million revenue bond for the Anderson County Regional Airport (AND). A report was produced that illustrated the rates and charges of nearby airports and identified the demand for the various hangar types. Preliminary engineering cost estimates were developed, and potential rates and charges were shown to demonstrate the income potential of each hangar facility by type.

Master Plan Update, Jim Hamilton - L.B. Owen Airport – Columbia, SC | A changing economic climate and new airport vision facilitated the need for updated Master Plan. A review and forecast of activity showed that additional runway length and commercial, corporate, and T-hangar facilities would be necessary to accommodate demand through the 20-year planning period. The proposed plan depicted provisions for new facilities and identified many existing nonstandard conditions including ROFA and FAR Part 77 penetrations as well as a nonstandard runway to taxiway separation issues that were addressed through modification of design standards. Mr. Osborne served as Senior Airport Planner and Project Manager for the Master Plan Update effort.

Master Plan Update, Alexandria International Airport – Alexandria, LA | Mr. Osborne served as the Deputy Project Manager for the England Economic & Industrial Development District. He was responsible for the oversight and production of various master plan components including the Airport Layout Plan Set and inventory chapter. He has close coordination with airport authority staff was necessary to ensure the accuracy and detail of the various Master Plan improvements that were reflected within the ALP Set.

Master Plan Update, Upshur County Airport – Buckhannon, WV | Serving as Project Manager, Mr. Osborne performed engineering and planning services as required create a Master Plan and Airport Layout Plan. In addition to typical master plan elements, this study included mapping services and aeronautical survey of features on and adjacent to the Airport property and within the approach paths to each runway end. This work was subcontracted with a certified title attorney to establish the airport's ownership rights to subsurface minerals in order to identify an alternate source of revenue potential in the future.

Airport Business Plan and ALP Update, Lexington County Airport – Pelion, SC | Lexington County purchased the Airport from the town of Pelion and desired to investigate methods of achieving financial sustainability. A review of the Airport's finances and demand in the area concluded that T-hangar development, runway upgrades, and private development could collectively benefit the airport and help the county achieve its financial goals. Mr. Osborne served as Senior Planner and Project Manager for the ALP Update and Business Plan efforts. The development recommendations of the business plan were incorporated into the master plan alternatives and ultimately into the Airport Layout Plan Set.

Master Plan Update, Smith Reynolds Airport – Winston Salem, NC | Mr. Osborne served as position/role assisting in the development of a Master Plan Update for one of few FAR Part 139 general aviation airports in

Richard Osborne, CM, ACE | Planning

the US. The 20-year development plan included recommendations to upgrade airfield navigational aids, improve approach procedures, and identified many areas within the airport's boundaries that would be slated for maintenance repair and overhaul (MRO) facilities as well as for general aviation and corporate hangar development.

Other Master Plan / ALP Updates:

- Aiken Regional Airport – Aiken, SC
- David G Joyce Airport – Winnfield, LA (ALP Update)
- South Lafourche Leonard Miller, Jr. Airport – Galliano, LA
- Darlington County Airport – Darlington, SC
- Zephyrhills Municipal Airport – Zephyrhills, FL
- Danville Regional Airport – Danville, VA
- M Graham Clark Downtown Airport – Branson MO
- Spacecoast Regional Airport – Titusville, FL
- St. Augustine Regional Airport – St. Augustine, FL
- Peter Prince Airport (2R4) – Milton, FL
- Orlando Sanford Airport – Sanford, FL
- Isla Grande Airport – San Juan, Puerto Rico

Miscellaneous Aviation Planning Studies:

- Cargo Study, Baltimore Washington International Airport (BWI) – Baltimore, Maryland
- Tower Line of Sight/Shadow Analysis, St. Petersburg-Clearwater International Airport – Clearwater, FL
- On-Call Services, Palm Beach International Airport – West Palm Beach, FL
- On-Call Services, Daytona Beach International Airport – Daytona Beach, FL
- On-Call Services, Galliano Airport – Cut Off, LA
- Environmental Assessment, La Isabela International Airport – Dominican Republic

**EDUCATION:**

Bachelor of Architecture, 1976
University of Kansas

BS Environmental Design, 1975
University of Kansas

**PROFESSIONAL
REGISTRATION(S):**

Professional Architect, FL
No. 0012255

Professional Architect, MO
No. 003931

YEARS OF EXPERIENCE:

41

YEARS WITH AVCON:

10



MARY SODERSTRUM, AIA, NCARB

SENIOR AIRPORT PLANNER

Mary Soderstrum has over 41 years of experience as an airport planner, a senior aviation executive, facilities programmer, aviation activity forecaster, and architect. She has extensive expertise in airport master planning; facilities forecasting; and planning and design of aviation facilities including passenger terminals, aprons, airside facilities, terminal renovation, and airport expansion programs. Ms. Soderstrum was part of the team that wrote the FAA Advisory Circular 150/5070-6 Airport Master Plans, and she was the principal author of the FDOT Airport Master Plan Guidebook (2010). She recently served as a team member for the FDOT Airport Master Plan Guidebook 2021-2022 Update and the Aviation Project Handbook 2019 Update.

RELEVANT EXPERIENCE:**AVIATION PROJECT HANDBOOK**

FDOT Central Office, Tallahassee, FL | Chief Planner

This project represented annual revisions to the prior Aviation Project Handbook to reflect current statutory regulations and state policies related to aviation funding for capital improvement projects at Florida public-use airports. The Handbook serves as an airport reference manual on the range of state-funding programs for airports, including eligibility criteria as well as conditions and other parameters for applying for aviation grants. In addition to grants, they provide guidance on the State Infrastructure Bank loans and provides current contact information for FAA and FDOT District officials.

GUIDEBOOK FOR AIRPORT MASTER PLANNING

FDOT Central Office, Tallahassee, FL | Chief Planner

This annual project involves a wholesale update to the FDOT's airport master planning manual, including the incorporation of updated data to reflect current FDOT and FAA policies for airport master plans. The Guidebook is the preeminent tool for Florida airports initiating a master plan update as it provides detailed and up-to-date guidance on the various technical elements of a master plan, methods for addressing these elements, and the state policies that compel airports seeking state funding assistance.

PTGA PROJECT SCOPE DESCRIPTIONS

FDOT Central Office, Tallahassee, FL | Chief Planner

This project included the development of project scope descriptions for use by the FDOT Aviation Office in administering Public Transportation Grant Agreements (PTGAs) with Florida Airports. AVCON coordinated project types consistent with FAA National Priority Ratings and created unique project scope descriptions for the FDOT to utilize in the distribution and execution of state aviation grants to support airport projects. The project scope descriptions identified services commonly associated with airport projects and were developed consistent with Florida statutory requirements for state funding.

MASTER PLAN UPDATE

Ocala International Airport, Ocala, FL | Project Manager

Updated the existing Master Plan and Airport Layout Plans that justified the extension of the primary runway, provided for development of non-aeronautical development on the west side of the airfield, and developed the justification for an ATCT.

AIR TRAFFIC CONTROL TOWER SITING STUDY

Ocala International Airport, Ocala, FL | Project Manager

Directed the study that analyzed three sites on the Airport for the best location of a new contract ATCT based on the new Alternative Siting Process delineated in FAA Order 6480.4A.

Mary Soderstrum, AIA, NCARB | Planning**AIR TRAFFIC CONTROL TOWER ENVIRONMENTAL ASSESSMENT***Ocala International Airport, Ocala, FL | Project Manager*

Performed an environmental assessment on the selected ATCT site to assess the impacts the construction and operation the Tower could have on the environment.

SPACEPORT LAUNCH SITE OPERATOR'S LICENSE APPLICATION*Cecil Airport, Jacksonville, FL | Project Manager*

Directed the highly detailed License Application process, which included not only risk assessments for the flight corridor of the anticipated vehicles but also addressed safety and security issues at the Spaceport and the surrounding community but also established a local emergency response plan.

SPACEPORT ENVIRONMENTAL ASSESSMENT*Cecil Airport, Jacksonville, FL | Project Manager*

Directed the environmental assessment necessary for a launch site operator's license to operate Cecil Airport as a horizontal launch spaceport for reusable launch vehicles that are being developed as commercial vehicles that will take passengers and payloads into a suborbital flight and return.

INTERIM ALP UPDATE*Gainesville Regional Airport, Gainesville, FL | Project Manager*

This project comprises development of an Interim ALP Update concentrating on Taxiway A and ensuring that it meets FAA AC 150/5300-13A. The project consists of geometry changes to Taxiway A. The changes consist of taxiways and taxiway stubs and associated fillets as they meet Taxiway A. These changes will show an extension of Taxiway A west to remove the curve in the existing taxiway before it reaches the threshold of Runway 7 and replacing the curve with a 90-degree angle. In addition, the run-up pads located on Taxiway A-4 and the west end of Taxiway A are being reconfigured to conform with FAA AC 150/5300-13A and sized to accommodate the appropriate sized and number of aircraft; future Taxiway D will be removed per the FAA-ADO; Taxiway A-5 is being reconfigured to move the connection with Taxiway A further to the east to have Taxiway A-5 meet Taxiway A at a 90-degree angle; the existing direct connection between the General Aviation apron and Taxiway A-5 is being removed; Taxiway A-1 is being removed; appropriate fillet size/radius of each turn for both ends of each taxiway connector to Taxiway A is being provided; Building Number 27 is being removed; and the old ARFF building is being removed. AVCON is also preparing cost estimates for the design and construction phases of the Taxiway A project.

MASTER PLAN UPDATE*Perry Foley Airport | Senior Airport Planner*

This Master Plan Update included inventory of existing conditions, forecasts of aviation activity, environmental considerations, facility requirements, demand capacity analysis, runway length analysis, wind coverage analysis, the development and evaluation of alternatives, the development of an Airport Industrial Park on the site of a runway recommended for closure, the refinement of the preferred alternative, the updating of the Airport Layout Plan, the development of a Capital Improvement Program with project descriptions, cost estimates, and proposed project schedules.

AIRPORT LAYOUT PLAN UPDATE*Zephyrhills Municipal Airport, Zephyrhills, FL | Senior Airport Planner*

This detailed Airport Layout Plan Update (ALP) included the development of new Aviation Activity Forecasts, the determination of the Primary Runway, the determination of runway lengths and widths, a Capital Improvement Program and the determination of funding sources, as well as a complete update of the Airport's Property Map.

MASTER PLAN UPDATE*Wauchula Municipal Airport, Wauchula, FL | Project Manager*

This Airport Master Plan Update was prepared for the City of Wauchula and the Wauchula Municipal Airport to provide long-range airport improvement strategies that address the future demand for aviation and aviation-related services at the Wauchula Municipal Airport. This study considered future airport improvements for a 20-year period of 2012 to 2031.

**EDUCATION:**

AS, Computer Drafting and Design, ITT Technical Institute (2003)

EXPERIENCE:

Career: 2002 – Present
ICE: 2019 – Present

ANDREW NAZARKEWYCH**Planning**

Mr. Nazarkewych is a Senior Aviation Planning Designer and leads the production of aviation planning graphics and technical analyses for the firm. He has completed numerous Airport Layout Plans (ALPs) for airports throughout the country as well as specialty aviation planning assignments. Mr. Nazarkewych specializes in creating unique opportunities to constantly improve the production and quality of products and works across many design platforms including AutoCAD Civil3D, ESRI ArcMap, Blue Marble Global Mapper, and Transoft Solutions AviPLAN applications. In addition to his primary role in aviation planning, he routinely assists with architecture and engineering projects and provides assignments to junior designers and guidance regarding the technical delivery of submittals.

EXPERIENCE:**Airport Master Plan Update, Brooksville-Tampa Bay Regional Airport – Brooksville, FL** | As a Senior Designer, Mr. Nazarkewych produced most of the

AutoCAD graphics for the Master Plan Update including the Airport Layout Plan (ALP). The study included a large-scale land use analysis due to the availability of property for both aviation and non-aviation purposes. Many of the projects illustrated in the Master Plan Update have been implemented at BKV and Mr. Nazarkewych has assisted with multiple different aviation planning assignments and specialty studies for BKV during his tenure at a previous firm. The firm conducted a Master Plan Update for the Airport and Technology Center to promote safe and efficient airport facilities and the continued economic development of the 430-acre Technology Center, which is home to over 125 manufacturers and aerospace suppliers.

Airport Master Plan Updates, Peter O. Knight Airport, Tampa Executive Airport, and Plant City Airport – Hillsborough County, FL | Mr. Nazarkewych served as the Senior Designer for all graphic production by the company for this large-scale effort. Each airport has its unique character, and he was able to tailor the development of alternatives and recommendations accordingly.

Baggage Screening System Upgrades, Tampa International Airport – Tampa, FL | As Senior Designer, Mr. Nazarkewych was responsible for providing AutoCAD and planning support for this effort including the preparation of pre- and post-construction graphics.

Aviation Engineering/Architecture Services for Airport Development Projects, Livingston Executive Airport – Livingston Parish, LA | Mr. Nazarkewych serves as the Senior Lead Designer for this project which includes providing program development services for the justification, design, and construction of a new airport in Livingston Parish, Louisiana known as the proposed Livingston Executive Airport. His responsibilities include development of report graphics, ALP, NPIAS Justification Study graphics, and assistance with engineering schematics. This project includes a Justification Study for the proposed airport to enter the FAA's National Plan of Integrated Airport Systems (NPIAS), a feasibility study and preliminary engineering report for the proposed airport site airport master plan update; website development, community engagement and stakeholder engagement meetings; environmental analysis and permitting; architectural project visioning and conceptual design (including 3D renderings and fly throughs of the recommended airport concept); architectural preliminary building facilities design; engineering airport development and design; and Benefit-Cost Analysis (BCA). It is anticipated that the airport will be constructed and open within the next five years.

Airport Master Plan Update, Jim Hamilton L.B. Owens Airport – Columbia, SC | As a Designer, Mr. Nazarkewych was responsible for the production of all AutoCAD graphics for the Master Plan Update including the Airport Layout Plan (ALP). This airport is located in Downtown Columbia and surrounded by several sensitive land uses. Mr. Nazarkewych utilized his ability to quickly perform obstruction assessments as part of this effort with a combination of AutoCAD Civil3D and ESRI ArcMap tools. The Master Plan Update included various different obstruction assessments because of the surrounding land uses (e.g., a railroad) and

Andrew Nazarkewych | Planning

Mr. Nazarkewych was able to provide a resolution for all issues that allowed the airport to comply with FAA airspace regulations in a safe and efficient manner.

Airport Master Plan Update and Runway Justification Study, Rickenbacker International Airport – Columbus, OH | As a Senior Designer, Mr. Nazarkewych was responsible for the production of all AutoCAD graphics for the Master Plan Update including the Airport Layout Plan (ALP). This former military base has become one of the fastest growing international air cargo airports and multi-modal logistics centers in the United States in a short period of time and continues to experience aviation activity growth and significant development in the surrounding area. Mr. Nazarkewych translated the projected growth demands for wide-body international air cargo activities (including apron requirements and processing facilities) into a realistic development program that the Columbus Regional Airport Authority (CRAA) intends to follow to meet short-term and long-term demands. The Master Plan Update also included a Runway Justification Study to illustrate the need to maintain two parallel runways that are capable of supporting activity between Columbus and locations around the globe. He developed graphics for the Runway Justification Study that illustrated the global locations served from LCK and was able to clearly illustrate CRAA's preservation initiatives for both parallel runways.

Columbia Metropolitan Airport, Airport Master Plan Update – Columbia, SC | Mr. Nazarkewych assisted with the production of report graphics and the Airport Layout Plan (ALP) for the Master Plan Update. His primary role was to assist with AutoCAD efforts and to support the final production of the graphics and documentation for this effort.

Detailed Airport Layout Plan Update, False River Regional Airport – False River, LA | As a Senior Designer, Mr. Nazarkewych was responsible for the production of all AutoCAD graphics for the Detailed Airport Layout Plan Update. The effort included a detailed land use analysis to assist with determining where property acquisition was needed to construct additional hangars and support facilities. He helped to identify the required parcels and to develop a phased development plan for the False River Air Park Commission to follow to meet immediate and long-term development demands.

Airport Layout Plan Update and Business Plan, Orangeburg Municipal Airport – Orangeburg, SC | As a designer, Mr. Nazarkewych was responsible for the production of most AutoCAD graphics for the Airport Layout Plan Update and Business Plan. The effort included a detailed property map depicting existing property, released property, existing easements, and future property acquisition requirements and easements. He utilized his ability to interpret legal descriptions to digitize property information from deeds and to obtain approval of the ALP drawing set by the FAA.

Airport Layout Plan Update and Business Plan, Morehouse Memorial Airport – Bastrop, LA | As a Designer, Mr. Nazarkewych was responsible for the production of all AutoCAD graphics for the Airport Layout Plan Update. He attended meetings with the City of Bastrop to discuss opportunities to fulfill their long-term vision for the airport and translated that in the production of report graphics and the ALP drawing set.

Airport Master Plan Update, Upshur County Regional Airport – Buckhannon, WV | This airport was constructed at the top of a mountain and required an extensive terrain analysis to provide realistic recommendations for future airfield and landside development and also to evaluate obstructions associated with the surrounding mountainous terrain. As a Designer, Mr. Nazarkewych utilized AutoCAD Civil3D to identify the most cost-effective opportunities for development at W22 while complying with FAA requirements.

Airport Layout Plan Update (ALP), Aiken Regional – Aiken, SC | As a designer, Mr. Nazarkewych assisted with the production of AutoCAD graphics for the Airport Layout Plan Update. He assisted with the final delivery and production of submittals to the FAA and with quality control efforts.

Airport Layout Plan (ALP) Update, Darlington County Airport – Darlington, SC | As a designer, Mr. Nazarkewych was responsible for the production of all AutoCAD graphics for the Airport Layout Plan Update. He created high-quality graphics that illustrated opportunities for both aviation and non-aviation development at UDG and was asked to do follow-up work on the ALP to provide a clean full-color ALP that could be utilized for marketing purposes.

**EDUCATION:**

BS, Architectural Design,
Clemson University (1979)

EXPERIENCE:

Career: 1979 – Present

ICE: 2019 – Present

REGISTRATION:

NCARB, 1988, 36362

Registered Architect:

FL #AR100018

PROFESSIONAL**AFFILIATIONS:**

American Institute of
Architects

Bob Anderson, AIA

Architecture

Mr. Anderson specializes in architectural design for airport structures. His project management experience includes responsibilities for design and development of architectural projects beginning with preliminary studies and conceptual plan development, architectural design, interdisciplinary coordination, construction plan preparation, specifications, estimates, construction administration, and client consultation. With many years of experience, He has been the principal technical specialist in planning, designing, and administering the construction of both new and renovation commercial terminal programs, such as Augusta, Georgia; Monroe, Louisiana; Albany, Georgia; St. Petersburg, Florida, and Myrtle Beach, South Carolina. Mr. Anderson has also developed an area of expertise in creating airport terminal programs that reflect the specifics of their location through a “visioning process,” combining physical layout, local design influences, and colors and materials to create unique designs. Mr. Anderson is also very familiar with the intricacies of planning and designing new general aviation terminals and hangars, ARFF stations, rental car maintenance facilities at many locations throughout the South and Eastern US.

EXPERIENCE:

Programming and Conceptual Design for Aircraft Rescue and Fire-Fighting Station (ARFF), Ocala Regional Airport – Ocala, FL | Through meetings with the Airport and Fire Department, Mr. Anderson performed programing for new ARFF station and created conceptual plans and site plans for a new 9,400-square-foot, one-story joint use fire station and airport rescue and firefighting (ARFF)

facility. Consultant’s tasks included researching and reviewing building and site documents; conducting a site visit; identifying immediate and long-term facility spatial and site development programming needs; identifying and evaluating building and site conceptual alternatives, including a preferred alternative, and preparing cost estimates for local and state funding.

CONRAC Facilities Refurbishment, Destin-Fort Walton Beach Airport – Valparaiso, FL | Mr. Anderson serves as Architect of Record on this project which will refurbish various aspects of the existing CONRAC Facility at the airport in order to satisfy immediate rental agency needs and upgrade aging mechanical equipment. The existing 10-station vacuum island currently serves as a bottleneck to rental car agency operations, inhibiting optimal efficiency. The project involves adding 20 vacuum stations to increase efficiency. The vacuum station will add two central 30hp pumps and debris canisters to power the system along with individual debris canisters to prevent the system from clogging. A steel canopy will be installed to cover the additional vacuum stations. The project also includes refurbishing various aspects of the facility, including replacing the existing fuel pumps with digital models, installing new inventory controls, replacing chip-key with proximity cards, and replacing all the wash equipment in the five-bay building. The project is funded through collected Customer Facility Charges (CFC’s).

Hangar Feasibility Study, Gainesville Airport, Gainesville, FL | Mr. Anderson served as Planner and Designer. As a part of a development proposal, the consultant reviewed a 1.0-acre area for a new corporate hangar. Mr., Anderson specifically reviewed the code issues, conceptual site, and building layout for a potential tenant desiring a 14,000-foot hangar and 6,000 square feet of office and support facilities. Client reviews and estimated costs were prepared for client and Airport action.

Hangar Feasibility Study, Valkaria Airport – Valkaria, FL | Mr. Anderson served as Planner and Designer. As a part of an open-end contract, the consultant reviewed a new development area for corporate hangars and shade hangars. Mr., Anderson specifically reviewed the code issues, conceptual site, and building layout for a potential tenant desiring a 12,000-foot hangar and 3,000 square feet of office and classroom facilities for a maintenance repair program. Client reviews and estimated costs were prepared for client and Airport action.

Bob Anderson, AIA | Architecture

Hangar Design Criteria Package, Sebastian Municipal Airport, Sebastian, FL | Mr. Anderson served as a Designer. As a part of an open-end contract, the consultant prepared a design -build criteria package for a new 3-bay corporate hangar. Mr., Anderson specifically reviewed the code issues, conceptual site, and building layout an 11,700-foot hangar and 5,000 square feet of office tenant areas, split into two locations. Client reviews and estimated costs were prepared for client and Airport action.

Terminal Renovations, St. Pete-Clearwater International Airport – Clearwater, FL | Mr. Anderson was responsible for Terminal Phase 1A, concepts and schematic design and detailed phasing plans. The consultant provided design and construction services for renovations included hold room expansion, ticketing renovations, and improvements to bag screening and security checkpoints.

Aircraft Rescue and Firefighting (ARFF) Facility, Gainesville Regional Airport – Gainesville, FL | Mr. Anderson duties consisted of reviewing project scopes and programming documents, and also providing Quality Control reviews for completeness and coordination between disciplines and between drawings and specifications. Consultant's design services consisted of design to replace the existing 5,600 s.f. ARFF station built in 1979. The new three-bay station consists of an 8,500 square foot building, new parking lot, and apron approach road on a site adjacent to the ATCT. The consultant provided planning, architecture, and engineering design services for the construction of the new ARFF facility.

Terminal Renovations, Orlando Sanford International Airport – Sanford, FL | Mr. Anderson was responsible for conceptual design and QC reviews of a pay-per-use / first class passenger lounge to accommodate tourist/charter traffic. The consultant provided design services for a 5,100 square foot renovation including a main "palm court" with bar, TV seating areas, private lounge rooms, and amenities for children including a toddler playroom, a game arcade, and a nursing room.

Terminal Area Planning Study, St. Petersburg- Clearwater International Airport – St. Petersburg, FL | Mr. Anderson was responsible for planning and design associated with Master Plan Update. Scope included demand capacity review, building program, floor plan and exterior renovation concepts, and estimates for renovations to the existing terminal/ building.

Airport Planning Study, Daytona Beach International Airport – Daytona Beach, FL | Mr. Anderson was responsible for planning concepts for Parcel 62 development for aircraft hangar and aircraft maintenance. Site and building concepts for 150,000-square-foot cargo aircraft maintenance hangar (B727 to B 767 sized aircraft).

Terminal Planning Study, Tallahassee Regional Airport – Tallahassee, FL | Mr. Anderson was responsible for planning study for implementation/feasibility of EDS systems. Review included activity analysis, justification and sizing of equipment, development of multiple concepts illustrating trace detection, CTX and in-line systems, and cost estimates. The work was completed in less than three weeks in order to coordinate with TSA/Boeing rollout start.

General Aviation Terminal Building, Destin Executive Airport – Destin, FL | Mr. Anderson provided project conceptual design and programming. The consultant's design responsibilities consisted of the construction of a new 5,400-square-foot general aviation terminal and involved significant utility work, underground storage tank removal and permitting with the City of Destin. In addition, the project included site and building demolition of three existing buildings prior to construction of the new terminal.

Intermodal General Aviation Center, Albert Whitted Airport – St. Petersburg, FL | As a part of the program management services, Mr. Anderson performed planning and conceptual building and site design and reviews. This project was a part of the facilities enhancement project at the airport. The consultant provided design and construction services for general aviation facilities, which included a 10,000-square-foot terminal, two storage hangars, aircraft apron and taxiways, landside facilities, and utilities.

General Aviation Terminal Building, Gainesville Regional Airport – Gainesville, FL | Serving as a Project Designer and Planner Mr. Anderson was responsible for initial space programming, floor plan, and exterior concepts for 5,000-square-foot general aviation terminal. The FBO tenant was looking to meet Exxon Aviatat standards in new construction or in a renovation of their current facility.

**EDUCATION:**

Master of Architecture,
University of South Florida
(2012) | Professional
Bachelor of Architecture
and Arts, Universidad
Piloto de Colombia (2006)

EXPERIENCE:

Career: 2005 – Present
ICE: 2019 – Present

**PROFESSIONAL
AFFILIATIONS /
CREDENTIALS:**

- Colombian Society of Architects
- National Professional Council of Architecture and its Ancillary Professions: Professional Registration Number A25192006-52997094

KARINA LANIER, AAIA

Architecture

Ms. Lanier specializes in aviation architectural design. She has been involved in many different aviation architecture projects for both public and private sectors, ranging from small to large, and from conception to construction. Her project experience includes assisting with the design of major projects at Tampa International Airport, St. Pete-Clearwater International Airport, and several other Florida airports. Ms. Lanier has both new construction and renovation project experience, including those for: main terminal additions, interior renovations, TSA security line design, baggage handling systems, and restrooms. She effectively collaborates and coordinates with clients, stakeholders, and associated project engineers. Ms. Lanier is proficient in various software, including Revit, Lumion, AutoCAD, SketchUP, Bluebeam, and Artlantis Studio 4. For increased efficiency, Ms. Lanier utilizes software which allows for seamless coordination and collaboration with subconsultants.

EXPERIENCE:

General Aviation Terminal, Ocala International Airport – Ocala, FL | This Design-Build project involved the development of plans for a brand-new 17,500-square-foot general aviation terminal. The project required a design charrette to garner project stakeholder and community input. To help the City of Ocala in meeting its budget, alternatives were prepared during the design phase. The floor plan includes a restaurant, large conference area, rental car company offices, pilot rest and recreational facilities, and office space which allows for the full operation of fixed-base operator (FBO), Sheltair Aviation, which supplies jet fuel and food to the airplanes. For the Design Criteria Package which was developed in order to obtain competitive bids from General Contractors, Ms. Lanier served as the Senior Designer responsible for the Interior Design. Upon selection of the Design-Build firm, Ms. Lanier served as part of the Resident Project Representative (RPR) team, assisting with Construction Administration and the final Interior Design of the terminal.

T-Hangars, Box Hangars, and Access Taxiway Development, Valkaria Airport – Valkaria, Florida | Ms. Lanier is serving as the Task Leader on this project that involves designing, permitting, and bidding of three, 24-unit nested T-Hangar buildings with attached box end hangars as well as two separate box hangars, including taxidrives and taxilanes to be located off the north end of Runway 14. Work includes preparing civil site design drawings, technical specifications, and schematic drawings. Additionally, the team is tasked with developing the Construction Documents package for use in bidding and permitting the project.

Preliminary Design for Skimmers Point Gate Guard Relocation – Gulfport, FL | This residential project involves replacing the existing gate house with a new gate house structure to update the aesthetics to match the guard house on the opposite end of community. The new 250-square-foot ADA-compliant building will feature a clay tile roof, restroom, office, and storage space. Due to the location of the project, utility work was a significant component and required coordination with several utility agency owners. The scope of work consisted of demolishing the current guard building and relocating it southeast. Ms. Lanier was in charge of developing the guard house design and preparing the pricing set.

Restroom Improvements, Tampa International Airport – Hillsborough County, FL | This project involved design-phase evaluations for two upgraded restrooms at the airport. For airside A and E, a complete demolition of the current restrooms preceded the implementation of a unique, modern design that reflected the character and theme of each airside terminal. As Senior Designer, Ms. Lanier was responsible for creating multiple design options prior to the development of the contract documents. To reduce the time the restrooms would be out of service, the project included phased and accelerated construction work activities.

Karina Lainer, AAIA | Architecture

Administration Building Design, Kissimmee Gateway Airport – Osceola County, FL | Ms. Lanier served as the Senior Designer on this project which included the design of a new airport administration building and related site improvements.

Ticketing A Baggage Claim System, St. Pete-Clearwater International Airport – Pinellas County, FL | This project consisted of the renovation and addition of the baggage claim system and airline office renovation. Ms. Lanier served as the Senior Designer and Interior Designer responsible for construction documents, interior design and construction administration of the project.

Phase III Gates 7 through 10 Terminal Expansion, St. Pete-Clearwater International Airport – Pinellas County, FL | This \$7.5 Million project consisted of architectural and civil design services for the Phase III renovation and addition of the gates 7 through 10 terminals including the expansion of the TSA Checkpoint A and interior design. Ms. Lanier served as the Project Manager Assistant responsible for the construction administration of the project.

General Aviation Center, Punta Gorda Airport – Punta Gorda, FL | This project consisted of the architectural design of the General Aviation Center relocation for this Airport. Ms. Lanier served as senior designer and was responsible for the production of the construction documents. She also served as the interior designer for this project.

Customs Facility Renovation Planning and Design – St. Lucie, FL | This project consisted of the Customs Facility design for the St. Lucie Airport. The project involved interior renovation of 7,950 square feet. Ms. Lanier served as a Project Manager Assistant and was responsible for the construction administration phase of the project.

Fly School Facility New Hangar and Classroom Facility Design – Charlotte County, FL | This project consisted of a retrofit of an existing hangar to include a new office space inside the hangar as well as a new classroom facility next to the hangar. Mrs. Gutierrez-Lanier served as the Assisted Project Manager/Senior Designer responsible for the construction documents.

Materials Testing Lab/Construction Engineering and Inspection Center – Columbia, SC | The selected site includes an existing 18,000-square-foot warehouse building with limited offices which is suitable for the redevelopment needs of the firm. All new infrastructure was needed to support the building uses, while site improvement needs were very minimal. The selected site will be adjacent to the development of a new corporate headquarters for the firm. The existing warehouse was very industrial in appearance, and not in keeping with the adjacent office uses. The design suggested added windows and continuous canopies on the brick portions of the facades, and new storefront openings and canopies on the industrial metal sides to create a more consistent look for the professional services offered. This also made the facility consistent with the City development objectives for West Columbia. Ms. Lanier led the production from Schematic Design to Construction Documents and is currently leading the Construction Administration. She was also responsible for the Interior Design.

New Corporate Headquarters Building – Columbia, SC | To serve their needs as a growing industry leader, ICE decided to relocate the corporate headquarters to a 3-acre site on Highway 378 in West Columbia. The Initial development totals 33,000 square feet with future expansion capability of another 14,000 square feet. Site design includes approximately 160 parking spaces, as well as utilities and grading. The exterior massing emphasizes the central entry and corner stairways. The lower walls will be of brick and the upper floors of a stucco finish with horizontal reveals. Cantilevered roofs and an angled cornice further emphasize the horizontal nature of the building. Simple efficient materials are durable, cost efficient, and easily available to extend to the future addition. Ms. Lanier is serving as the Lead Designer and she is in charge of preparing the Schematic Design through Construction Documents, including pricing sets. She also focused on the Interior Design of the office. She worked directly with the firm's board of directors, as well as several leaders of the company, to satisfy the intent of the design by utilizing her experience of similar buildings.



JEFF LONG

Construction

Mr. Long has over 27 years of construction engineering inspection experience. His areas of expertise include civil construction inspections, sampling and testing of project materials, contractor coordination, documenting construction related activities and quantities in daily and monthly reports, constructability reviews, pre-construction submittals, quality control, and verification testing. Mr. Long ensures that construction procedures, design, and material specifications are met on each project. Projects have included airfield rehabilitation, roadway widenings and extensions, trailheads, bridges, culverts, land development, and utility services.

EXPERIENCE:

Taxiway A, Ocala International Airport (Construction Management) – Ocala, FL | Mr. Long serves as an Airfield Inspector responsible for providing full time RPR and inspection services. Mr. Long is responsible for inspecting all construction activities on site. The Taxiway A Rehabilitation project includes the milling and overlay of the existing taxiway as well as the demolition of several taxiway connectors and the construction of several new taxiway connectors. The project includes a re-alignment of portions of the existing taxiway as well as widening. Project includes the addition of taxiway edge lights and taxiway signage.

Taxilane and Sitework for Future Hangar Development and Taxiway “A” Repairs, Sebastian Municipal Airport – Sebastian, FL | Mr. Long serves as an Airfield Inspector responsible for providing RPR and inspection services. ICE prepared construction plans, specifications, and bid documents for the construction of a taxilane to serve future box hangar development located along the west side of Taxiway “A” between the existing police station and T-hangar site. ICE also led the design for the rehabilitation of 200 feet of Taxiway “A” on the south side of Runway 10-28, as well as the design of the parking lot and site utilities that will serve the

future hangar development.

East Airfield Pavement Rehabilitation, Tampa International Airport (Construction Management) – Tampa, FL | Mr. Long served as an Airfield Inspector and was responsible for airfield construction inspections of construction activities to ensure compliance with the plans and specifications, coordination of the work that required runway, taxiway and airside apron closures with Airport Operations, coordinate and monitor all Quality Assurance testing required by the contractor specifications, document quantities of materials used on the project by generated spreadsheet format, maintain a daily report of construction activities and project photographs. The purpose of this project was to rehabilitate pavements for Taxiways E, U, G, N1 and S. Rehabilitation of these Taxiways consisted of an asphalt mill and overlay. The project also provided for the removal of Taxiway F and partial removal of Taxiway E. These Taxiways were asphalt and/or concrete. Removal of these Taxiways required modifications to the taxiway edge lighting and signage. This project also provided for the removal and reconstruction of connecting Taxiways between the FBO Apron and Taxiways S and D. The existing connecting Taxiways were a combination of concrete and asphalt. The new connecting Taxiways were constructed of hot mix asphalt with a lime rock base. New airfield lighting and stormwater collection was required. This project provided for the rehabilitation of the FBO Apron which included milling/overlay and seal coat. This project also provided for the removal and replacement of existing airfield markings throughout the majority of the airfield.

Taxiway N Reconstruction, Airfield Slab Replacement, Airside F Joint and Slab Rehabilitation and Taxiway W Reconstruction, Tampa International Airport – Tampa, FL | Mr. Long served as an Airfield Inspector and was responsible for; airfield construction inspections of construction activities to ensure compliance with the plans and specifications, coordination of the work that required runway, taxiway and airside apron closures with Airport Operations, coordinate and monitor all Quality Assurance testing required by the contractor specifications, document

quantities of materials used on the project by generated spreadsheet format, maintain a daily report of construction activities and project photographs. project consisted of several elements of work. The first element was the reconstruction of the Western half of Taxiway N in which the current PCC pavement was demolished and replaced by a new asphaltic cement section. The second element of work consisted of the reconstruction of the Southern half of Taxiway W in which the current PCC section was replaced by a new PCC section, with asphaltic shoulders. The existing lighting system associated with those sections of Taxiway N and W were removed and replaced with a new system. Where appropriate existing Quartz lights were replaced by LED lights. The last elements of work included the rehabilitation of airfield slabs and joints throughout the airfield.

Taxiway Rehabilitation – Phase 2, St. Pete-Clearwater International Airport (Construction Management) – Clearwater, FL | Mr. Long served as an Airfield Inspector and was responsible for airfield construction inspections of construction activities to ensure compliance with the plans and specifications, coordination of the work that required runway, taxiway and airside apron closures with Airport Operations, coordinate and monitor all Quality Assurance testing required by the contractor specifications, document quantities of materials used on the project by generated spreadsheet format, maintain a daily report of construction activities and project photographs. This project included performance of full-time inspection and Quality Assurance testing as well as general project administration and coordination. The project team also served as the liaison between the Airport and the Contractor. The areas of work included Taxiway A South of Runway 4-22 and Taxiways F and M (Base Bid); Taxiways B and T (Additive Bid #1); and Taxiways M, J, K and U (Additive Bid #2). Additional services included review of project documentation, conducting the Pre-Construction Conference, submittal reviews and requests for information, contractor pay applications, change orders, site visits and meetings, and Resident Project Representation (RPR).

Taxiway B Reconstruction, Zephyrhills Municipal Airport – Zephyrhills, FL | Mr. Long served as an Airfield Inspector and was responsible for airfield construction inspections of construction activities to ensure compliance with the plans and specifications, coordination of the work that required runway, taxiway and airside apron closures with Airport Operations, coordinate and monitor all Quality Assurance testing required by the contractor specifications, document quantities of materials used on the project by generated spreadsheet format, maintain a daily report of construction activities and project photographs. The project consisted of the reconstruction and realignment of Taxiway B from the FBO to Runway 1-19. Taxiway B was milled and resurfaced from the FBO to Taxiway A. The intersection of Taxiway A and B was reconfigured with new asphalt pavement geometry points, pavement markings, edge lighting and circuitry. Taxiway B from Runway 5-23 to 1-19 was relocated next to the existing portion of old Taxiway B, with new limerock base, asphalt pavement, pavement markings, edge lighting and guide signs. The project included the rehabilitation of the existing section of Taxiway B and portions of aprons located around the FBO by seal coat application.

Terminal Apron Rehabilitation, Sebring Multimodal Logistics Center – Sebring, FL | Mr. Long served as an Airfield Inspector and was responsible for airfield construction inspections of construction activities to ensure compliance with the plans and specifications, coordination of the work that required runway, taxiway and airside apron closures with Airport Operations, coordinate and monitor all Quality Assurance testing required by the contractor specifications, document quantities of materials used on the project by generated spreadsheet format, maintain a daily report of construction activities and project photographs. The purpose of this project was to rehabilitate the 36,500 SYDS of PCC terminal apron. The project involved the recycle of the existing PCC apron into crushed aggregate base course with 9" of P-501 PCC replacement. Construction of taxiways between Taxiway A and the terminal apron were included. Storm drainpipe and trench drain upgrades were required, in addition to airfield edge lighting modifications.

Taxiway A and Bridge, Tampa International Airport – Tampa, FL | Mr. Long served as an Airfield Inspector and was responsible for airfield construction inspections of construction activities to ensure compliance with the plans and specifications, coordination of the work that required runway, taxiway and airside apron closures with Airport Operations, coordinate and monitor all Quality Assurance testing required by the contractor specifications, document quantities of materials used on the project by generated spreadsheet format, maintain a daily report of construction activities and project photographs.

**EDUCATION:**

BS, Civil Engineering,
Civil Aviation University,
Kiev (1986)

EXPERIENCE:

Career: 1986 – Present
ICE: 2019 – Present

REGISTRATION:

Professional Engineer:
Ontario, Canada

ROBERTO FARINAS**Construction**

Since 1986, Mr. Farinas has been involved in infrastructure development projects which includes infrastructure, tunnels, electrical substations, roadways, and underground utilities. He has also been involved in the design, planning, and construction for airport projects in the United States, Canada, Qatar, and Cuba. Having obtained a bachelor's degree in Civil Engineering and as a licensed professional engineer in Canada, Mr. Farinas brings an in-depth understanding of engineering principles coupled with a proven track record performing thorough inspection of various construction activities. Having performed oversight on numerous construction projects through project acceptance and close out, Mr. Farinas is adept at record keeping, documentation, and grant assurances. His project experience includes having served as a Senior Construction Engineer on a multimillion-dollar new airport development project that included the construction of a midfield area systems, taxiways, aircraft aprons, access roads, sub-stations, underground utilities, and tunnels.

EXPERIENCE:**West Apron Expansion Construction, Destin-Fort Walton Beach Airport – Okaloosa County, FL |**

Mr. Farinas served as an inspector for the construction of this project which consisted of enlarging the West Apron to create five additional commercial aircraft ground loading apron spaces for A319/320 and other narrow body aircraft. The spaces also serve as remain overnight (RON) space for aircraft to base for early flights when all of the existing spaces with jet bridges are full or otherwise under exclusive lease by another airline. Adjacent existing asphalt apron pavement, taxiways and vehicle parking were also rehabilitated. Significant utility relocations were performed to include gravity sewer, force main, electrical and water service. Structural work included the construction of a steel covered walkway for passengers accessing a future terminal concourse. As the full-time RPR, Mr. Farinas' duties included performing inspection of construction activities to ensure work was completed in accordance with the plans and specifications; preparing daily reports; conducting weekly construction progress meetings; photographing the project's progress; coordinating with Airport Operations as well as other Airport contractors under separate contract for multiple projects; conducting Davis-Bacon interviews; and managing the overall QA effort. He also managed field engineering changes and modifications. Additionally, his duties included monitoring weather impacts, and identifying discrepancies or omissions in the issued for construction plans and communicating them to the Project Manager. He was in charge of coordinating the Independent Verification (IV) for testing and approval of materials, soils, asphalt, and concrete; witnessing and approving the testing and commissioning of electrical systems, water, and sanitary sewer lines; performing the preliminary walk through with Airport staff and identifying Punchlist items for rectification, as well as following up for the closure of the items noted; and preparing as-built documentation and close out.

Terminal Expansion, Southwest Florida International Airport – Lee County, FL | Mr. Farinas serves as Inspector on this \$331 Million terminal expansion project at the airport. Work involves remodeling 164,000 square feet of the existing facility and adding 117,000 square feet of. ICE serves as a subconsultant on this project responsible for providing CEI services on this project.

General Engineering Consultant for the Town of Indian Shores – Indian Shores, FL | ICE was selected on a continuing contract to provide professional engineering services, such as site plan reviews, general civil engineering services, designs, specifications bid administration, construction services, municipal planning, transportation/traffic engineering, land surveying, environmental/hazardous materials services, management of the Town's NPDES permit, and other consulting services. Mr. Farinas has worked on the following task work orders assigned under this contract as Senior Inspector responsible for performing site reviews:

Roberto Farinas | Construction

- Residential Lot Site Plan Review – ICE is tasked with performing site plan reviews of single-family lots for new housing. ICE will assess planning and zoning needs and complete ordinance compliance reviews.
- Municipal Center Driveway Revision to Gulf Boulevard – ICE has been tasked to review the current design plans and utilize the paving and grading data to ensure the new driveway design will accommodate the FDOT design requirements. The existing driveway will be closed and converted to four new parking spaces with a new landscape barrier along Gulf Boulevard. ICE will update the design plans as needed and prepare a bid package for approval and place it out to bid for contractor pricing.

Airport Engineering for FAA-FDOT Funded Projects – Various Locations | Mr. Farinas served as an Aviation Project Engineer responsible for performing airport planning, design, construction administration, and technical observation of construction for the following airport projects in Florida:

- **General Aviation Terminal and Parallel Taxiway “C”, Page Field Airport (FMY) – Fort Myers, FL**
- **Runway 06-24 Rehabilitation, Southwest Florida International Airport (RSW) – Fort Myers, FL**
- **Lighting and Signage Improvements, Naples Municipal Airport Airfield (APF) – Naples, FL** | Mr. Farinas served as RPR on this project for the City of Naples responsible for overseeing construction activities. He oversaw ensuring the Contractor was performing work as per the drawings and specifications and as per the approved material submittals. He performed daily coordination with airport operations about the work area for the day and the safety procedures to follow to minimize the impact to the aircraft operations, preparing daily reports, quantifying the installed quantities, approving payment requisitions, making sure the Contractor complied with the FAA Advisory Circular, Operational Safety During Construction. Mr. Farinas conducted the construction progress meetings and made sure the approved construction schedule was followed. He witnessed and approved the acceptance testing of the new systems as per the specifications. He participated in the final completion walkdown with the client and the General Contractor as well as prepared the punch list items and followed up to ensure the items were rectified. The scope of work involved the replacement of all the airfield lighting and signage for Runway 5-23 and Runway 14-32, as well as for the taxiway system, including the approach lighting system and the PAPI. Additionally, the CCR and panel at the electrical vault were upgraded.
- **Exit Taxiways, Page Field Airport (FMY) – Fort Myers, FL** | Design and Construction project
- **Airport Layout Plan Update, Page Field Airport (FMY), Fort Myers, FL**
- **East Hangars, Page Field Airport (FMY), Fort Myers, FL** | Design and Construction project
- **North Quadrant Site Development, Page Field Airport (FMY), Fort Myers, FL** | Design project
- **South Hangars, Page Field Airport (FMY), Fort Myers, FL** | Design and Construction project
- **Southeast Ramp, Page Field Airport (FMY), Fort Myers, FL** | Design and Construction project
- **New Parallel Taxiway “C”, Immokalee Regional Airport (IMM) – Immokalee, FL** | Mr. Farinas served as an Aviation Project Engineer at the Immokalee Regional Airport responsible for construction of Taxiway “C”, a new parallel taxiway to Runway 36. The following work was included as part of this project: the improvement of the stormwater drainage system, the rehabilitation of the existing General Aviation apron, the installation of new taxiway signage and pavement markings, and improvements to the airfield lighting system. Mr. Farinas served as part-time RPR overseeing the construction activities and ensuring installation was compliant with the drawings, specifications, and the approved material submittals.
- **New Parallel Taxiway, Everglades Airpark (XO1) – Everglades, FL** | Mr. Farinas participated on the planning and the design and prepared cost estimates for the project. He was the part-time RPR for the construction phase and performed technical observation of construction, prepared daily reports, and prepared close out documentation. The project consisted of the construction of a new parallel taxiway to Runway 15-33. Work on this project also included improvement of the stormwater drainage system, the installation of new taxiway signage and pavement markings, and improvements to the airfield lighting system.



MIKE STALVEY, JR. - S34101375

Vice President/Project Manager



386.755.3633



mstalvey@caltechtesting.com



3309 SW SR 247
Lake City, FL 32024

QUALIFICATIONS CERTIFICATES

- Asphalt Paving Technician
– Level I & II – *expired*
- Earthwork Construction
Inspector – Level I & II –
expired
- FDOT Concrete Field
Inspector – *expired*
- ACI Concrete Field
Technician – Grade I & II –
expired
- Qualified Sampler –
expired
- Drilled Shaft Inspector –
expired
- Nuclear Radiation Safety
Training (CPN & Troxler)
- Quality Control Manager
(QC Manager)
- Construction of
Mechanically Stabilized
Earth Walls and
Reinforced and
Reinforced Soil Slopes –
expired

PROFESSIONAL PROFILE

Mr. Stalvey has over 20 years experience in Soil, Aggregate, Concrete field-testing and Drill Shaft Inspection. Mike has performed as a Quality Assurance/Verification and Quality Control Manager on numerous FDOT projects as listed below. His experience includes Concrete and Masonry work in performing his duties as a Drill Shaft Inspector. He is very familiar and knowledgeable with specifications and plan reading relating to most projects including vertical, interstate/highway, airport and bridge construction.

PROJECT EXPERIENCE

- AECOM - Suwannee County Airport, West Apron Expansion, Live Oak, FL
- AECOM - GNV Commercial Terminal Expansion and Improvements
- AECOM - Suwannee County Airport Apron Expansion and Hangar Construction
- Cyril E. King Airport Rehab & Relighting of Taxiway "A" East, St. Thomas, VI, Project Manager
- I-10 Truck Parking Availability System FIN#440096-1-52-01, Contract E3Q53
- SR 93, FIN#428804-1-52-01, T2611, Gainesville, FL
- SR 26 (Newberry Rd), T2578, 430542-1-52-01
- SR 93 FIN#428805-1-52-01 Contract#T2590
- SR A1A/US1 San Marco to Magnolia Ave 210452-4-52-01 and 434556-1-52-01
- SR A1A/US1 San Marco to Magnolia Ave 210452-4-52-01 and 434556-1-52-01
- SR 12 / Beach Blvd Roadway Improvements and Widening, QC Manager
- CR 214 roadway Improvements, Trail, Bridge Barrier Wall Anchor Bolt Pull Test Verification
- SR 312 Roadway Improvements, St. Johns County, QC Manager
- CR 356 Roadway Improvements, Taylor County, (CEI) Construction Oversight Management
- SR 9B Right of Way Fencing, Duval County, QC Manager
- US 90 / Duval Street, Mast Arm Structure, Drilled Shaft Inspector

EDUCATION

Columbia High School - Diploma
Lake City Community College – General Associates Degree

Lake City, Florida ■ Jacksonville, Florida ■ US Virgin Islands
www.caltechtesting.com



Reginald M. Barrineau, P.S.M., Founded 1988

Oakhurst Professional Park + 1309 S.E. 25th Loop + Suite 103 + Ocala, Florida 34471
PHONE (352) 622-3133 + **FAX** (352) 369-3771 + rmbarrineau.com



TRAVIS P. BARRINEAU, P.S.M.

PROFESSIONAL REGISTRATION

Professional Surveyor and Mapper, State of Florida, LS6897

POSITION AND FUNCTIONAL SUMMARY

Travis Barrineau is President of R.M. Barrineau and Associates, Inc. and is responsible for project management and supervision of field personnel for R.M. Barrineau and Associates, Inc., located in Ocala, FL, a full service surveying and mapping firm offering services to private individuals, engineers, architects, contractors, lending institutions, attorneys and government agencies throughout Central Florida.

EDUCATION

University of Florida, 2009
 Bachelor of Science Degree in Geomatics (Surveying and Mapping)

PROJECTS AT OCALA INTERNATIONAL AIRPORT

Project Surveyor for Topographic Survey for New Terminal Building at Ocala International Airport and Construction Staking for Terminal: Provided vertical and horizontal control; SPC's; Civil 3D file

Project Surveyor for ALTA/NSPS Land Title Survey for four new hangar sites at Ocala International Airport: establish boundaries for the lease parcels; topographic data for parcels; prepare metes and bounds descriptions for the parcels; Civil 3D file

Project Surveyor for numerous individual hangars at Ocala International Airport: topographic data; metes and bounds descriptions for lease parcels; SPC's; Civil 3D file

Page 2, Travis
Barrineau

ORGANIZATION MEMBERSHIPS AND COMMUNITY INVOLVEMENT

- Vice-President of North Florida Chapter of Surveying and Mapping Society, 2021-2022
- Secretary/Treasurer of North Florida Chapter of Surveying and Mapping Society, 2013-2015
- Secretary of North Central Florida Chapter of Surveying and Mapping Society, 2010
- Treasurer of North Central Florida Chapter of Surveying and Mapping Society, 2011 and 2012
- Member of American Congress of Surveying and Mapping and National Society of Professional Surveyors
- Member of Florida Surveying and Mapping Society
- Soccer Coach for Youth Big Sun Soccer



IVAN MARCANO – M.S., P.E.

SENIOR GEOTECHNICAL ENGINEER



386.755.3633



imarcano@caltechtesting.com



3309 SW SR 247
Lake City, FL 32024

QUALIFICATIONS CERTIFICATES

- Professional Engineer in the State of Florida – License #65550 (est. 1/18/2007)
- Professional Engineer in the State of Georgia – License #PE043588
- Professional Engineer in the USVI – License #0-42792-1B
- Certified US Army Corps of Engineers-Construction Quality Management
- Certified FDOT Drilled Shaft and Driven Pile Inspector
- Certified Troxler Radiation Safety Officer

PROFESSIONAL PROFILE

Mr. Marcano has over 30 years of geotechnical and field experience in construction of high-rise residential and commercial projects, public transportation projects, industrial complex, resort hotels, stadium, and dike rehabilitation in the states of Florida, New York, the Bahamas, Panama, Colombia, Venezuela and the US Virgin Islands.

PROJECT EXPERIENCE

- US Army Corp of Engineers (USACE) culverts C3 and C4A
- Communication tower antennas and FDOT
- USACE-Herbert Hoover Dikey cut-off wall
- Conducted subsurface investigation programs and inspected driven pile installations for FDOT
- Drill shaft and augercast pile installations at the Miami Metro Rail Orange Line
- Geotechnical Engineering Studies for large-scale resorts, laundry and warehouse facilities in Paradise Island, Nassau, Bahamas
- Construction management (8-story, structural steel bldg., Edo. Cojedes, Venezl.; Landslide Km-30 Via Los Teques-Tejerias, Edo. Miranda, Venezl.)
- Zephyrhills Municipal Airport Taxiway A Rehabilitation – Geotechnical Exploration & Pavement Evaluation
- CEI – Numerous projects in D2 & D3

EDUCATION

- Bachelors in Science in Civil Engineering – Universidad Santa Maria, Caracas, Venezuela
- Master Science in Civil Engineering – University of Florida

Lake City, Florida ■ Jacksonville, Florida ■ US Virgin Islands
www.caltechtesting.com

*Florida Department of Transportation*

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

KEVIN J. THIBAUT, P.E.
SECRETARY

July 29, 2021

Doug Hambrecht, Vice President-Florida Aviation
INFRASTRUCTURE CONSULTING & ENGINEERING, PLLC, LLC
5550 Idlewild Avenue, Suite 102
Tampa, Florida 33634

Dear Mr. Hambrecht:

The Florida Department of Transportation has reviewed your application for prequalification package and determined that the data submitted is adequate to technically prequalify your firm for the following types of work:

- Group 3 - Highway Design - Roadway
 - 3.1 - Minor Highway Design
 - 3.2 - Major Highway Design
- Group 4 - Highway Design - Bridges
 - 4.1.1 - Miscellaneous Structures
 - 4.1.2 - Minor Bridge Design
 - 4.2.1 - Major Bridge Design - Concrete
 - 4.2.2 - Major Bridge Design - Steel
- Group 5 - Bridge Inspection
 - 5.4 - Bridge Load Rating
- Group 6 - Traffic Engineering and Operations Studies
 - 6.1 - Traffic Engineering Studies
 - 6.2 - Traffic Signal Timing
 - 6.3.1 - Intelligent Transportation Systems Analysis and Design
 - 6.3.2 - Intelligent Transportation Systems Implementation
- Group 7 - Traffic Operations Design
 - 7.1 - Signing, Pavement Marking and Channelization
 - 7.2 - Lighting
 - 7.3 - Signalization

Group 10 - Construction Engineering Inspection

- 10.1 - Roadway Construction Engineering Inspection
- 10.3 - Construction Materials Inspection
- 10.4 - Minor Bridge & Miscellaneous Structures CEI
- 10.5.1 - Major Bridge CEI - Concrete
- 10.5.2 - Major Bridge CEI - Steel

Group 13 - Planning

- 13.5 - Subarea/Corridor Planning

Group 14 - Architect

Your firm is now technically prequalified with the Department for Professional Services in the above referenced work types. The overhead audit has been accepted, and your firm may pursue projects in the referenced work types with fees of any dollar amount. This status shall be valid until June 30, 2022, for contracting purposes.

Approved Rates

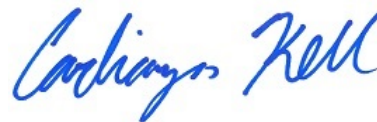
Home/ Branch Overhead	Field Overhead	Facilities Capital Cost of Money	Premium Overtime	Reimburse Actual Expenses	Home Direct Expense	Field Direct Expense
172.41%	157.56%	0.274%	Reimbursed	No	11.60%	10.71%*

*Rent and utilities excluded from field office rate. These costs will be directly reimbursed on contracts that require the consultant to provide field office.

Per Title 23, U.S. Code 112, there are restrictions on sharing indirect cost rates. Refer to Code for additional information.

Should you have any questions, please feel free to contact me by email at carliayn.kell@dot.state.fl.us or by phone at 850-414-4597.

Sincerely,



Carliayn Kell
Professional Services
Qualification Administrator

Number of Records Returned: 1

Selection Criteria:

Vendor : CAL-TECH TESTING INC

Vendor Name: CAL-TECH TESTING INC

DBE Certification: CERTIFIED

MBE Certification: Certified

DBA:

Former Name:

Business Description: LABORATORY TESTING SERVICES, UNDERGROUND MODIFICATIONS- SINKHOLE, SOIL STABILIZATION, CEMENT, CHEMICAL, POLYURTHANE AND VOID GROUTING

Mailing Address: 3309 SW SR-247
LAKE CITY, FL 32024-

Contact Name: ABBY STALVEY

Phone: (386) 755-3633

Fax: (386) 752-5456

Email: ASTALVEY@CALTECHTESTING.COM

ACDBE Status: N

Statewide Availability: Y

Certified NAICS

238990 All Other Specialty Trade Contractors

541380 Testing Laboratories



Exhibit B - Submitted Proposal



GREATER ORLANDO
AVIATION AUTHORITY



CONTRACT# 220118

JACKSONVILLE
TRANSPORTATION
AUTHORITY

Florida Unified Certification Program

Disadvantaged Business Enterprise (DBE)

Certificate of Eligibility

***BLUE WING ENVIRONMENTAL LLC
MEETS THE REQUIREMENTS OF 49 CFR, PART 26***

APPROVED NAICS CODES:

541620



***Samuel Febres (Sammy)
DBE & Small Business Development Manager
Florida Department of Transportation***



B-107



Exhibit C - Average Rates

Infrastructure Consulting & Engineering, PLLC

Job Classification	Average Contract Rate	Multiplier	Fully Burdened Hourly Rate
SENIOR PROJECT MANAGER	\$ 100.96	314.2800%	\$ 317.30
QUALITY CONTROL A	\$ 100.96	314.2800%	\$ 317.30
QUALITY CONTROL B	\$ 74.76	314.2800%	\$ 234.96
PROJECT MANAGER A	\$ 65.14	314.2800%	\$ 204.72
PROJECT MANAGER B	\$ 58.18	314.2800%	\$ 182.85
ENGINEER A	\$ 67.31	314.2800%	\$ 211.54
ENGINEER B	\$ 35.82	314.2800%	\$ 112.58
DESIGNER	\$ 43.03	314.2800%	\$ 135.23
ENVIRONMENTAL SCIENTIST A	\$ 78.27	314.2800%	\$ 245.99
ENVIRONMENTAL SCIENTIST B	\$ 31.30	314.2800%	\$ 98.37
PLANNER A	\$ 74.52	314.2800%	\$ 234.20
PLANNER B	\$ 45.91	314.2800%	\$ 144.29
ARCHITECT A	\$ 88.94	314.2800%	\$ 279.52
ARCHITECT B	\$ 43.27	314.2800%	\$ 135.99
CONSTRUCTION INSPECTOR A	\$ 37.02	314.2800%	\$ 116.35
CONSTRUCTION INSPECTOR B	\$ 37.50	314.2800%	\$ 117.86
ADMIN	\$ 24.04	314.2800%	\$ 75.55



5555 E. Michigan Street, Suite 200
Orlando, Florida 32822
Phone: (407) 599-1122
Fax: (407) 599-1133
www.avconinc.com

"EXHIBIT A"
AVCON, INC.

SCHEDULE OF RATE VALUES

<u>Position Description</u>	2022	
	Proposed	
	Contract	
	<u>Billing Rate</u>	
Principal	\$	252.00
Senior Project Manager	\$	252.00
Project Manager	\$	180.00
Senior Civil Engineer	\$	163.00
Senior Structural Engineer	\$	188.00
Senior MEP Engineer	\$	179.00
Project Engineer	\$	110.00
Engineer/ Planner	\$	97.00
Senior Aviation Planner	\$	204.00
Senior CADD Designer	\$	103.00
CADD Designer	\$	75.00
Construction Inspector	\$	125.00
Contract Administrator	\$	101.00
Administrative Assistant	\$	61.00

Note: AVCON will not place a mark-up on sub-consultant services for overhead or operating margin.

RESPECTFULLY SUBMITTED:

DATE:

6/20/2022



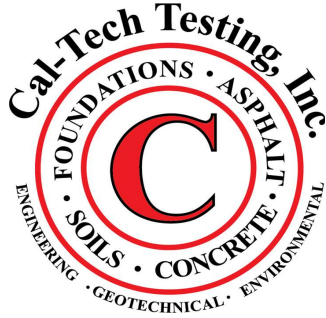
Blue Wing Environmental, LLC Rate Sheet

<u>Position Title/Category</u>	<u>Hourly Rate</u>
Project Manager/Director	\$ 150.00
Sr. Ecologist/ Qualified Airport Wildlife Biologist	\$ 125.00
Sr. NEPA Specialist	\$ 125.00
Ecologist I	\$ 100.00
NEPA Specialist	\$ 100.00
GIS Technician	\$ 95.00
Field Technician	\$ 60.00
Administrative Professional/Clerical	\$ 35.00

Note: Rates fixed for the duration of contract

Blue Wing Environmental, LLC
813-404-3963
sbrammell@bluewingenv.com

Tampa Office
19607 Lake Osceola Lane
Odessa Florida 33556



Cal-Tech Testing, Inc.

- **Engineering** P.O. Box 1625 • Lake City, FL 32057
 - **Geotechnical** Tel. (386) 755-3633 • Fax (386) 752-5456
 - **Environmental** 7540 103rd Street, Suite 215, Jacksonville, FL 32210
- LABORATORIES** Tel. (904) 381-8901 • Fax (904) 381-8902

2022 Fee Schedule

ENGINEERING AND TECHNICIAN SERVICES	
Professional Geotechnical Engineer	\$125.00
Project Manager	\$135.00
Earthwork / Asphalt Paving Engineering Technician, Level 1	\$65.00
Earthwork / Asphalt Paving Engineering Technician, Level 2	\$75.00
Asphalt Plant Technician	\$85.00
Concrete Technican, Level 1	\$75.00
Administration / Clerical	\$55.00
Portal to Portal Travel for all Technician Services	Tech Rate per HR
Minimum of 1 Hour for all Technician Services	Tech Rate per HR



Reginald M. Barrineau, P.S.M., Founded, 1988

Oakhurst Professional Park + 1309 S.E. 25th Loop + Suite 103 + Ocala, Florida 34471

PHONE (352) 622-3133 + FAX (352) 369-3771 + rmbarrineau.com

FEE SCHEDULE FOR R.M. BARRINEAU AND ASSOCIATES INC.

Effective January 1, 2022

PROFESSIONAL SERVICES:

Professional Surveyor and Mapper	\$ 145.00 per hour
Field Crew	140.00 per hour
CAD Technician	80.00 per hour
Survey Technician/Research	80.00 per hour
Administrative	45.00 per hour
Depositions/Court Testimony (P.S.M.)	150.00 per hour

COST OF MATERIALS:

Additional Prints	\$ 5.00 per print
Express-mail	Cost

Diane Barrineau

CFO

R.M. Barrineau and Associates Inc.

Effective January 1, 2022

TITLE	FOR REVIEW & SIGNATURES - Agreement for Continuing General.....
FILE NAME	FOR COUNCIL SIGNA...tructure Cons.pdf
DOCUMENT ID	66dcd64c0bf7c046135e77a690739bf70a05f910
AUDIT TRAIL DATE FORMAT	MM / DD / YYYY
STATUS	● Signed

Document History



08 / 09 / 2022
10:18:45 UTC-4

Sent for signature to Infrastructure Consulting & Engineering, PLLC (doug.hambrecht@ice-eng.com) and Robert W. Batsel, Jr. (rbatsel@lawyersocala.com) from biverson@ocalafl.org
IP: 216.255.240.104



08 / 09 / 2022
14:19:23 UTC-4

Viewed by Infrastructure Consulting & Engineering, PLLC (doug.hambrecht@ice-eng.com)
IP: 47.206.182.180



08 / 09 / 2022
14:43:04 UTC-4

Signed by Infrastructure Consulting & Engineering, PLLC (doug.hambrecht@ice-eng.com)
IP: 47.206.182.180



08 / 15 / 2022
12:00:44 UTC-4

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IP: 216.255.247.55

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DOCUMENT ID	66dcd64c0bf7c046135e77a690739bf70a05f910
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09 / 07 / 2022
13:26:37 UTC-4

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09 / 07 / 2022
13:28:56 UTC-4

Sent for signature to Ire Bethea Sr. (ibethea@ocalafl.org) and Angel Jacobs (ajacobs@ocalafl.org) from biverson@ocalafl.org
IP: 216.255.240.104



09 / 09 / 2022
13:45:03 UTC-4

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IP: 24.250.250.64



09 / 09 / 2022
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IP: 24.250.250.64

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AUDIT TRAIL DATE FORMAT	MM / DD / YYYY
STATUS	● Signed

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15:11:34 UTC-4

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09 / 09 / 2022
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The document has been completed.