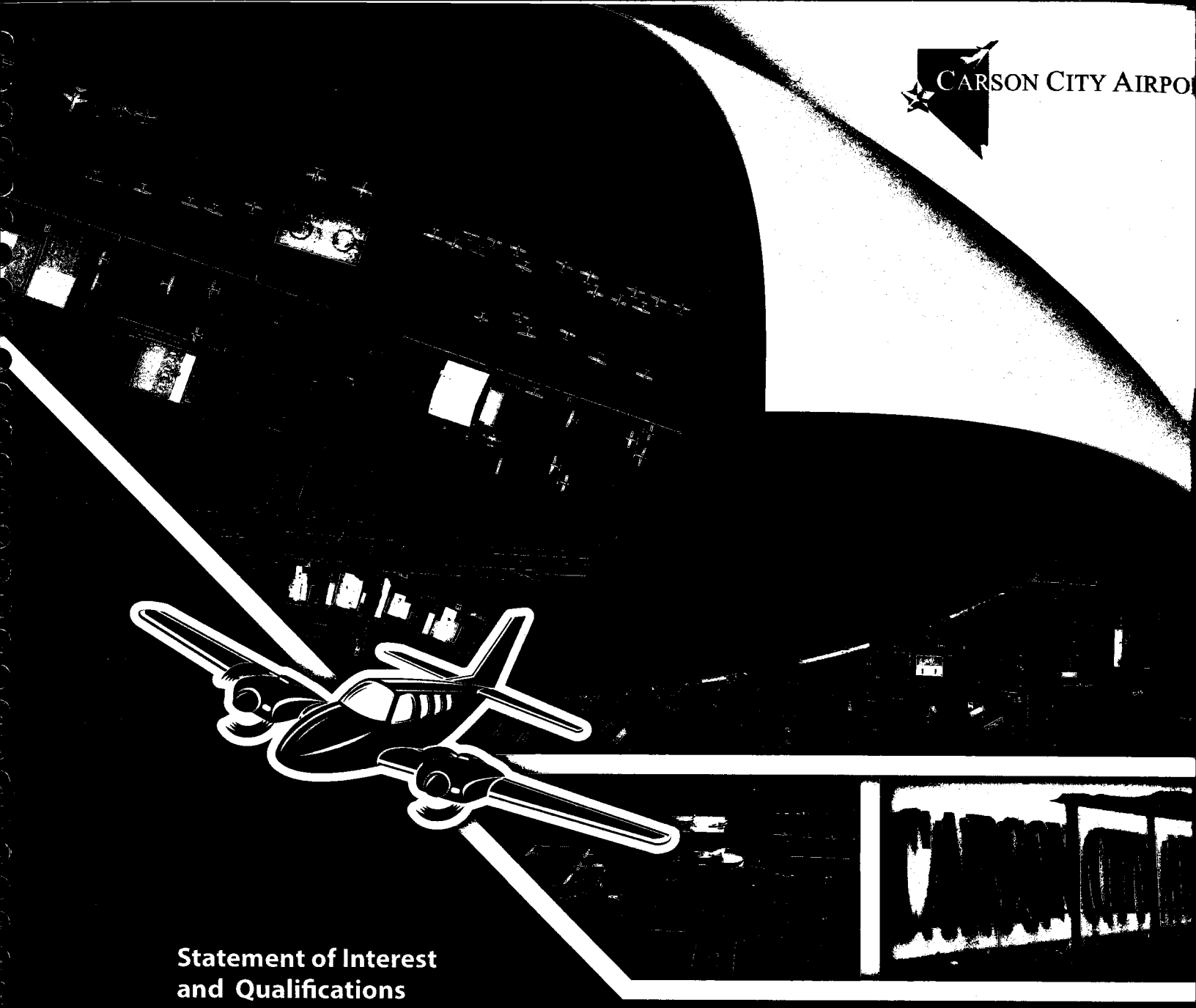
CARSON CITY AIRPO



Statement of Interest
and Qualifications

Airport Architectural/Engineering Services

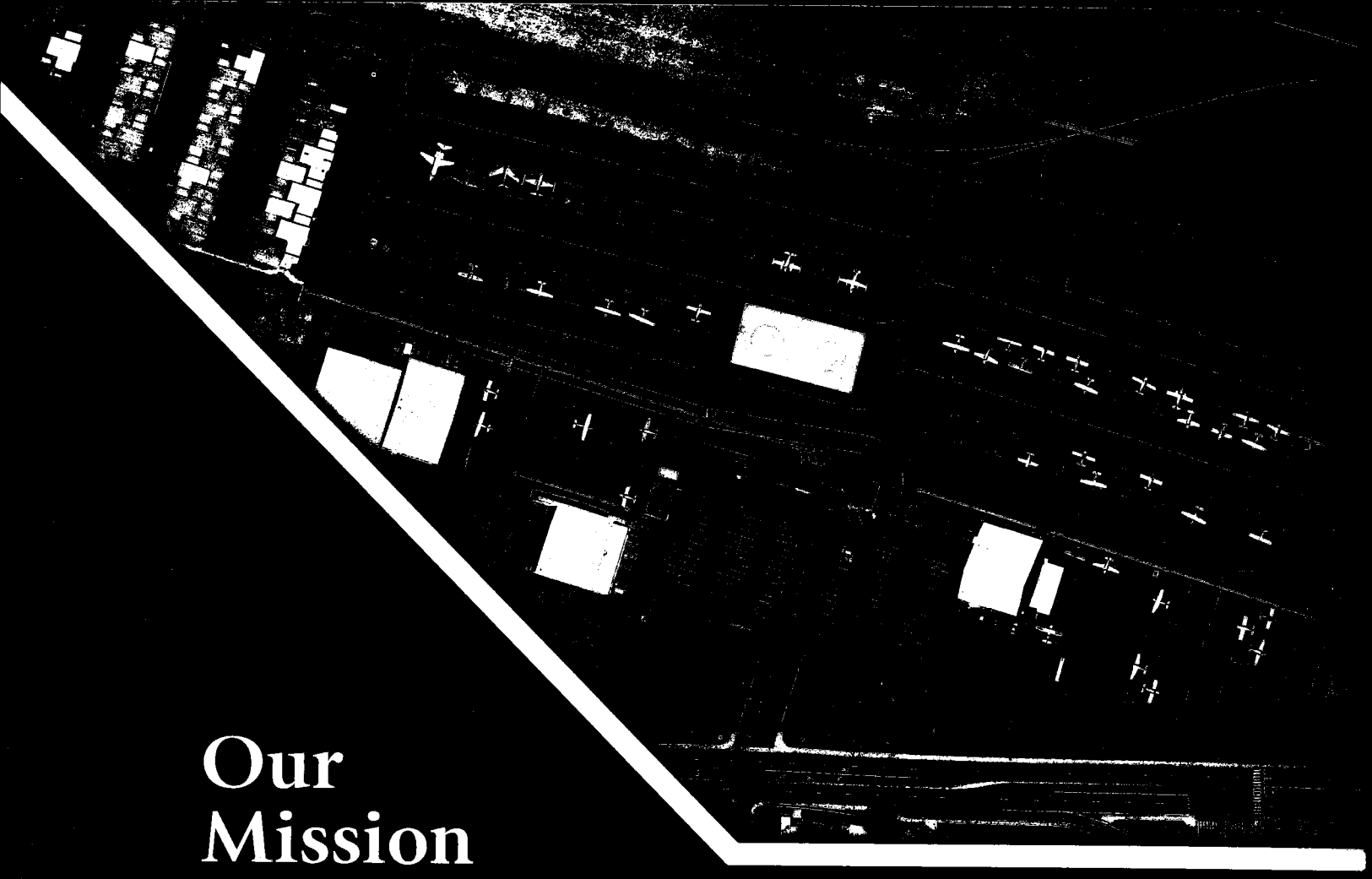
June 15, 2018

Submitted to:

Carson City
Airport Authority

Submitted by:

Michael Baker
INTERNATIONAL



Our Mission

Make the world a better place through the application of the principles of sustainable development by providing professional design services that enhance the quality of life and the environment.

Provide development, infrastructure, planning and environmental services to public and private sector clients in local, regional and global markets.

Lead as professionals specializing in planning, design and construction.

Look forward to the future with a commitment to building opportunities and value for our clients and ourselves.

June 15, 2018

Mr. Kenneth G. Moen, AAE
Carson City Airport Authority
2600 E. College Parkway #6
Carson City, NV 89706

Re: Request for Proposal No. 2018-001 | On-Call Airport Architectural/Engineering Services

Dear Mr. Moen:

Carson City Airport (CXP) is a 632-acre General Aviation (GA) airport with big potential. Not only is it located in the Capital City of Nevada, its proximity to Lake Tahoe and Tahoe-Reno Industrial Center both offer the potential for recreational and business opportunities for aviation services. Its success presents tremendous potential to enhance service to the surrounding community and region. The On-Call Airport Architectural/ Engineering (A/E) Services contract allows for an opportunity to help shape the future of the Carson City Airport Authority (Authority). In support of this mission, Michael Baker International, Inc. (Michael Baker) would like to be the Authority's trusted partner in planning and executing capital improvements in the most cost-effective and efficient manner. With our Reno office staff being native and long-time Nevadans, we share your vision beyond the projects immediately on the horizon. Our uniquely qualified team, led by Project Manager and Carson City resident Greg Stedfield, PE, is ready to join the Authority in its mission to enhance facilities while strengthening the economy of surrounding communities. We are excited about the opportunity to support the Authority and are pleased to submit our qualifications. We offer many advantages to the Authority including:

THE BENEFITS OF CHOOSING MICHAEL BAKER

The Authority will gain the following valued benefits by selecting Michael Baker for your on-call contract:

- *A local, responsible, hands-on Project Manager who is supported with award-winning, national aviation experience*
- *A deep project understanding and approach to aviation projects that includes potential costs savings alternatives*
- *An engaged team that will leverage our experience and share "lessons learned" from past similar projects to capitalize and/or mitigate any opportunities or risks that could potentially be realized within a schedule or budget*
- *A deep bench of other specialty services such as LiDAR and Unmanned Aircraft Systems (UAS)*

- **A Unique Blend of National and Local Aviation Experience:** Ranked by Engineering News-Record (ENR) as one of the Top 20 Aviation Firms in the country, Michael Baker is known industry-wide for superior performance as aviation consultants. From airport master plan development to new runway design to providing construction services to airports worldwide, Michael Baker knows the business of airports. With a rich history of delivering solutions to our many airport clients, we bring a wide variety of technical expertise required for success in this type of on-call contract. Michael Baker has provided services to more than 200 airports worldwide and executes more than $30 million in aviation engineering and architecture consulting services annually. We have come to know the unique requirements of airports of all sizes – from the smallest, privately-owned GA facilities to the busiest international airports in the world. While strong in stature, we are focused on making sure our clients, big or small, are given consistent support and expertise.

- **A Successful, On-Call, Airport Design Team:** Michael Baker has successfully provided on-call A/E support services at numerous airports within recent years, and key personnel who have served on those contracts airports will also be on our team. Our experience on those projects, along with a partnership with a few, local, small, specialized firms will directly benefit the Authority as you work towards achieving your long-term vision.

  Michael Baker's assigned Project Manager Greg Stedfield, PE, will be leading the contract from our Reno office. Mr. Stedfield was an Avionics Technician in the United States (U.S.) Navy and has led and designed aviation and airport projects including hangars, baggage handling systems, perimeter security fencing, vendor access projects, and airside pavement renovation projects. He is currently a citizen member of the Carson City Regional Transportation Commission. His local presence and expertise in aviation will aid the Authority in the timely execution of the projects listed in the Airport Capital Improvement Program (ACIP).

  Mr. Stedfield will be supported by our engineering lead Kevin Sigg, PE, who is a project manager and licensed engineer in the state of Nevada, devoted to aviation design and construction. He has been a part of numerous aviation design and construction projects from small, GA facilities to large commercial airports.

  We have also teamed with local, subconsultant, specialty firms including: Dinter Engineering Company (LESB) to provide lighting, electrical, and construction management/inspection related to those services; Bigby & Associates to provide surveying, mapping, and Right of Way (ROW) services; and ENGEO for geotechnical and construction management/inspection and materials testing. These firms have existing aviation experience that will benefit the Authority.

- **A Unique Understanding of Airport Programs and Stakeholders:** From our local office to our supporting offices, Michael Baker's employees have developed relationships with many of the stakeholders that are unique to GA programs. We understand what it takes to coordinate with the Federal Aviation Administration (FAA) from initial planning through design and construction, our experience at each stage provides valuable insight that allows us to develop plans with stakeholders and operations in mind. We know the business of airports and want to help you realize your goals.

We are excited to have the opportunity to help make CXP a continued success and a valuable part of the local aviation community. We thank you for the opportunity to submit our qualifications for this project and look forward to serving the Authority; to prove why, at Michael Baker, ***We Make a Difference***. If you have any questions regarding our submission, please do not hesitate to contact the Project Manager directly at 775.412.4603 or by e-mail at Greg.Stedfield@mbakerintl.com.

Respectfully Submitted,
MICHAEL BAKER INTERNATIONAL, INC.

Polly Boardman, PMP
Project Principal

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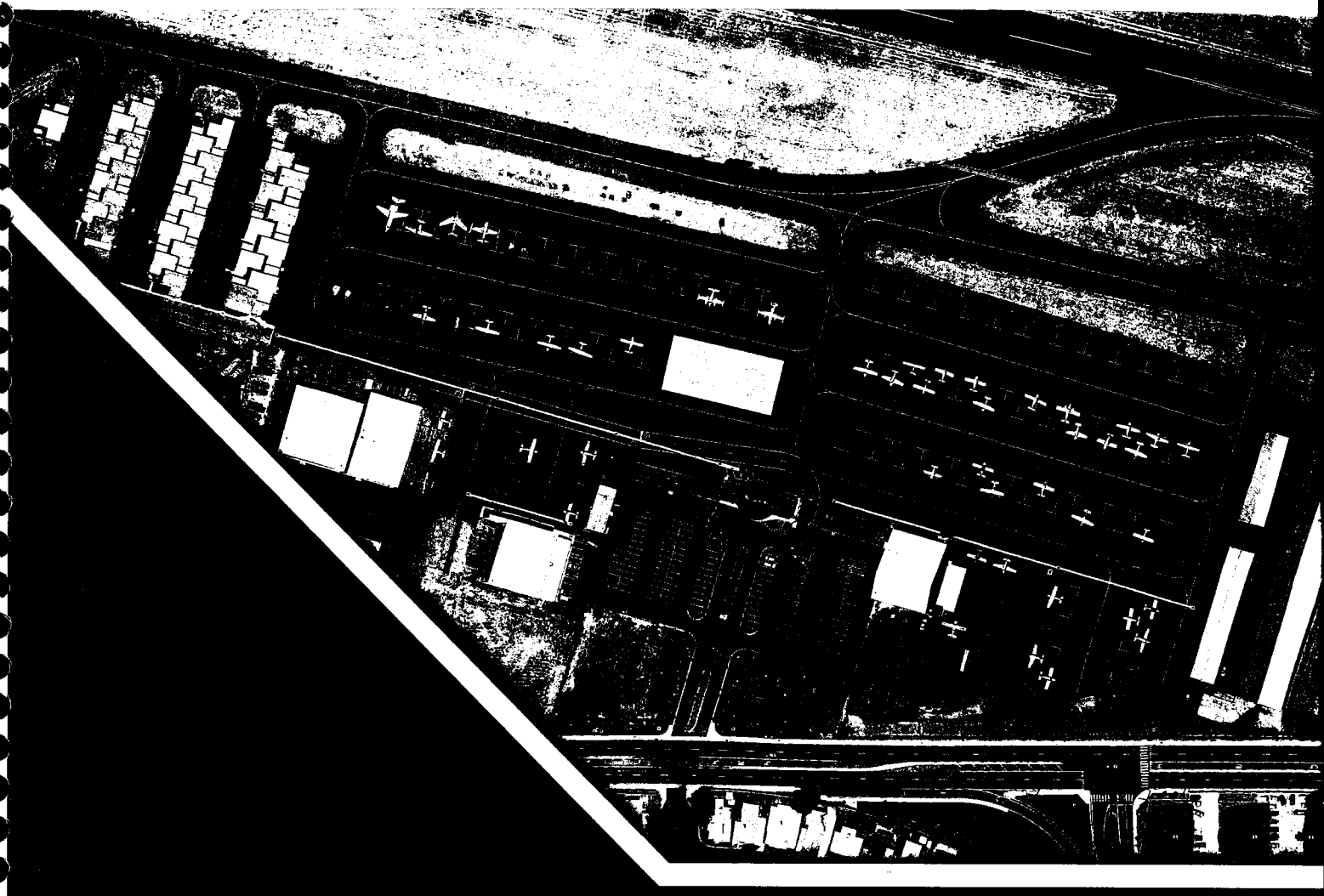


Section 1: Firm Overview

Michael Baker
INTERNATIONAL

SECTION 1: FIRM OVERVIEW

Company Overview

Michael Baker International, Inc. (Michael Baker) was founded in 1940 by Michael Baker Jr. and quickly attained recognition as a premier engineering design and survey firm through superior project performance for the United States (U.S.) military, preceding World War II. Today, Michael Baker is a leading global provider of engineering and consulting services including aviation, environmental, architectural, civil, geotechnical, structural, mechanical, electrical, planning, construction, program management, and full life-cycle support services as well as information technology (IT) and communications services solutions. Now in our 78th year, Michael Baker has provided in-house services to airports worldwide, serving as an on-call "extension of staff" from the preliminary phase and initial planning concepts, through the design and construction phases, to project closeout. Michael Baker's award-winning personnel have a reputation for taking their understanding of the local airport community and environment and incorporating related elements into functioning designs. Knowing that airports are a key economic driver of and a source of pride for the geographic area they serve, we perform as partners in more than facilities and infrastructure. ***We partner in success.***

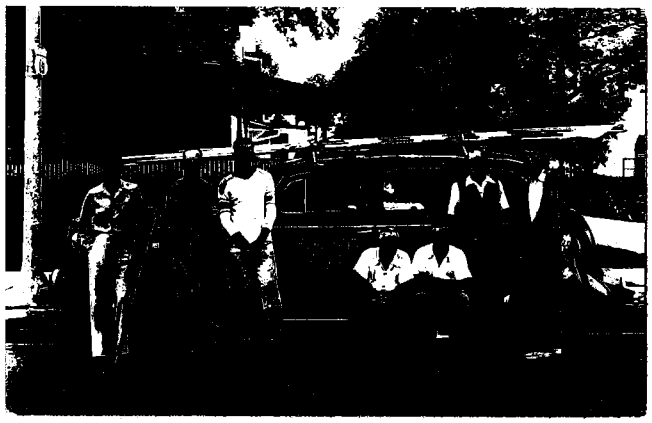


Image 1: *The roots of Michael Baker, Jr.'s civil engineering and surveying services.*

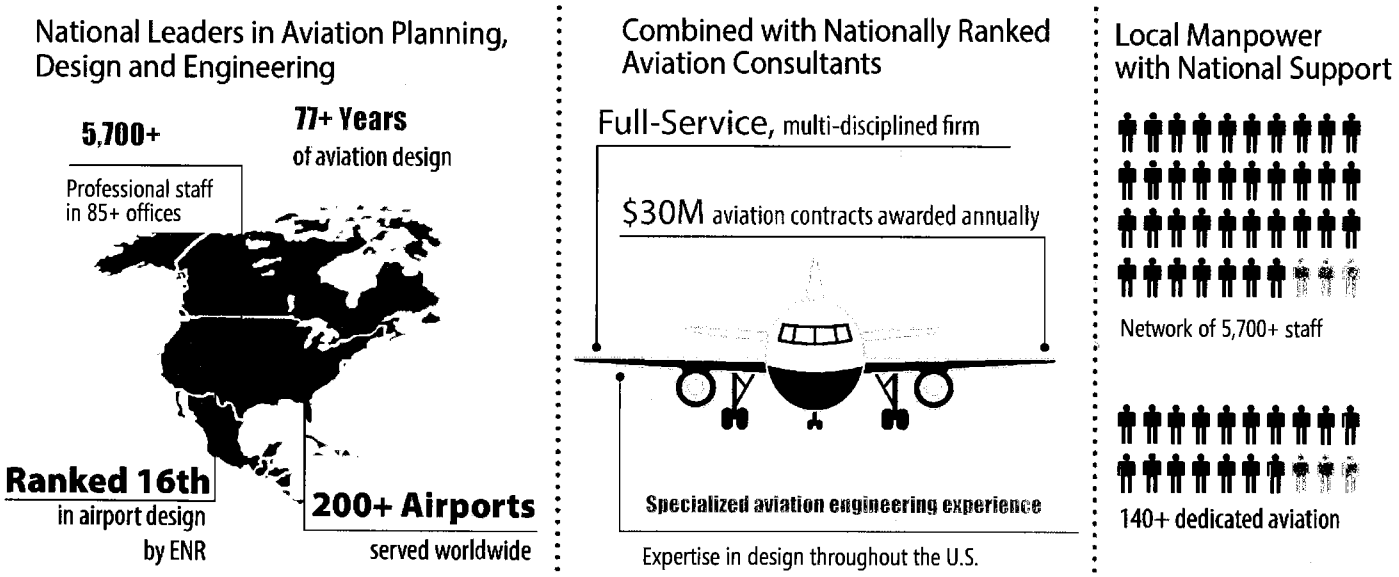


Image 2: *Michael Baker has a proven track record of successfully managing aviation planning contracts for clients across the nation. A summary of Michael Baker's aviation leadership and available resources to complete the contract for the Carson City Airport Authority (Authority) is provided in the above infographic.*

Michael Baker's Aviation Group has over 140 dedicated aviation professionals nationwide and provides aviation services to commercial, general aviation (GA), and military clients. As such, we have come to know the specific requirements of airports of all sizes; from the smallest, private GA facilities to the busiest International airports in the world with Department of Defense (DoD)/joint-use airfields. The firm's combined resources serve local,

national, and international markets with the capability to provide a comprehensive range of services on a national scale for all sizes and categories of projects. With more than 5,700 employees in over 85 offices nationwide, Michael Baker is consistently ranked by Engineering News Record (ENR) among the top 10 percent of the 500 largest U.S. design firms. Michael Baker's multi-disciplinary approach provides value added services that few firms can match. The following presents the comprehensive range of professional aviation services provided by Michael Baker.

2017 ENR Top 500 Design Firm Rankings	THE TOP 500 DESIGN FIRMS
32	Top 500 Design Firms
16	Airports
5	Bridges
26	Construction Management
23	Highways
24	Mass Transit & Rail
14	Transportation
12	Water Supply

- Airfield Design - Runways, Taxiways, Aprons
- Airfield Pavement Analysis/Management
- Airfield Drainage
- Terminal and Facilities Design
- Hangar Design
- Roadway & Access Design
- Master Planning Airport Geographic Information System (GIS)/Electronic Airport Layout Plans (eALPs)
- Land Use/Site Planning
- Environmental Assessments (EAs)
- Noise Studies/ Programs
- Wildlife Hazard Assessments & Management
- Mobile Light Detection and Ranging (LiDAR)/Unmanned Aerial Systems (UAS)
- NAVAIDS
- Traffic Engineering & Studies
- Feasibility Studies
- National Environmental Protection Act (NEPA) Compliance
- Planning & Site Development
- Geotechnical Investigation/Design
- Airside/ Landside Structural Design/Inspection
- Program and Construction Management
- Cybersecurity & IT

Michael Baker's achievements in aviation services are built on providing a full range of services to clients. Through these achievements, we bring the Authority knowledge in aviation planning, environmental studies and permits, airfield design, landside design, access roadways, security, terminals, hangar development, construction administration, resident inspection, and assistance with on- and off-airport development.

AVIATION EXCELLENCE

It is Michael Baker's constant focus on quality, innovation, and delivery that allows us to stand apart in the marketplace. *Our professionals constantly strive to provide value to our clients by first understanding their needs, then by working with them to identify solutions to make their projects a success. At Michael Baker, we relish a challenge. We excel at responding to client needs and tackling fast-track projects too taxing or overwhelming to others. Our long history of success in the aviation design industry has allowed us to become skilled at handling difficult assignments.*

Project Team Overview

Michael Baker's assigned Project Manager, Greg Stedfield, PE, will be leading the contract from our Reno office. He is resident of Carson City, living two minutes from CXP and being a licensed professional engineer in the State of Nevada. Mr. Stedfield was an Avionics Technician in the U.S. Navy and has led and designed aviation projects including hangars in California, Hawaii and overseas. Additionally, he led or designed a variety of airport projects including baggage handling systems, perimeter security fencing, vendor access projects, and airside pavement renovation projects. His local presence and expertise in aviation will aid the Authority in the timely execution of the projects listed in the Request for Qualifications (RFQ).

Mr. Stedfield will be supported by the engineering lead Kevin Sigg, PE, who is a project manager and licensed professional engineer in the State of Nevada devoted to aviation design and construction.

He has been a part of numerous aviation design and construction projects from small, GA facilities to large commercial airports. He is currently a citizen member of the Carson City Regional Transportation Commission. A sizable portion of the projects he has worked on have come through on-call contracts with long-term clients. He is devoted to delivering a high-quality product on-time and within budget.

Additionally, we have teamed with local firms who have similarly-sized airport experience including: Dinter Engineering Company (LESB) to provide lighting, electrical, and construction management/inspection; Bigby & Associates to provide surveying, mapping, and Right of Way (ROW) services; and ENGEO for geotechnical and construction management/inspection and materials testing. We have existing relationships with many consultants with aviation experience and can add additional subconsultants to our team to fit any other specific needs the Authority may have during the life of this contract.

Services Overview

Michael Baker is capable of executing any Architectural/Engineering (A/E) task deemed necessary by the Authority. This includes a strong focus on the aviation A/E aspects of airside, terminal, landside, environmental, CADD, GIS, and cost estimating. The combination of Michael Baker and our subconsultant team members bring the resources of a full-service planning and engineering firm along with depth of staff available for whatever tasks and projects the Authority may encounter. We are available to provide the full array of our services, as needed, to continue to advance the Authority to the next level. Service areas are further detailed below.

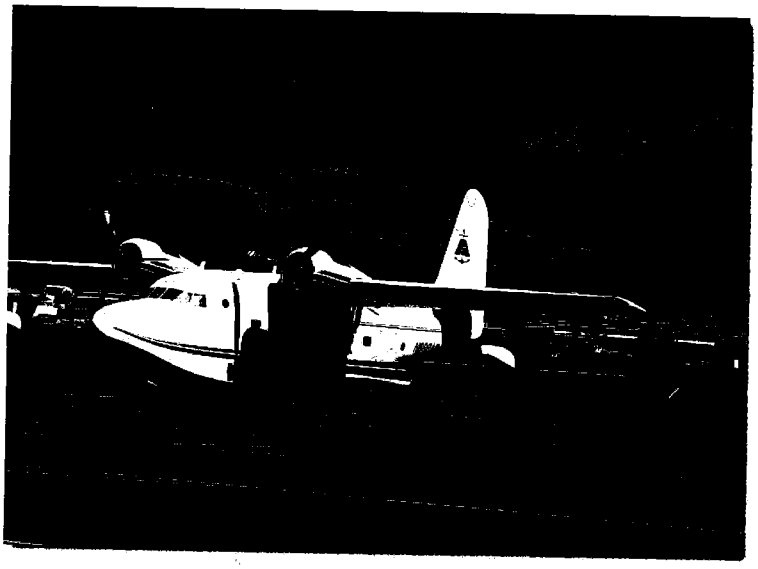


Image 3: *Grumman HU-16 Albatross at Carson City Airport.*

Engineering Design

Michael Baker has built a reputation for technical capabilities regarding airport engineering. Our engineers are well versed in Federal Aviation Administration (FAA) Advisory Circulars (AC) for design, pavements (concrete and asphalt), Airport Improvement Program (AIP) grants, marking, signs, lighting, airport construction safety, geometry, and specifications. We have produced plans and managed construction for numerous runways, taxiways, aircraft parking aprons, auto parking and access roads, utilities, lighting, Navigational Aids (NAVAIDs), signage, security systems and fencing, hangars, T-hangars, and terminal buildings.

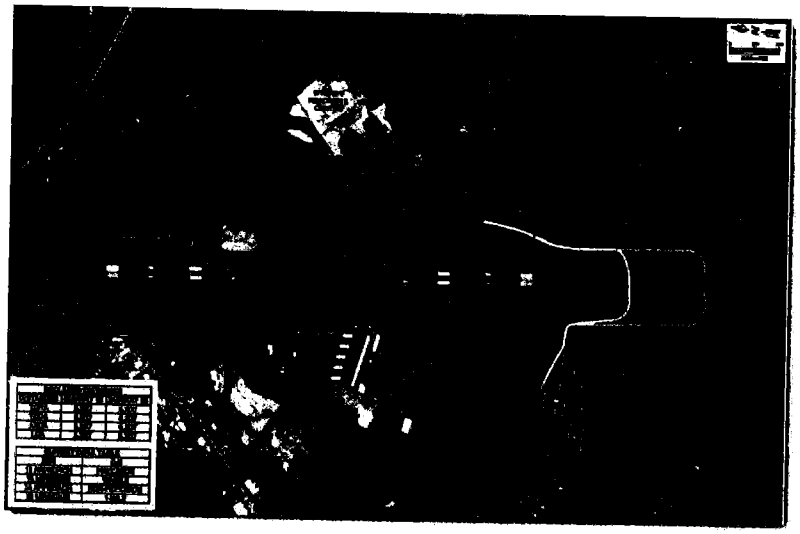


Image 4: *MGW declared distance mapping detailed engineering drawing.*

Our staff has the technical experience to accurately plan for a project, draft clear

scopes, produce an accurate set of engineering drawings, obtain all permits, assemble contract documents, and oversee construction. This blend of multi-disciplinary, multi-office, and airport civil engineering experience brings the right blend to address the needs of the Authority's needs. Our team has been involved with airfield pavement rehabilitation at various airports including the Piedmont Triad International Airport (GSO), which consisted of changes in horizontal geometry in accordance with FAA requirements. We have used several methods to optimize runway length under constrained conditions such the use of the declared distances or revising the Airport Reference Code (ARC) to allow for smaller imaginary surfaces such as Runway Safety Areas (RSAs).

Architecture

Airports are complex with vertical facilities, such as terminals, support buildings, cargo facilities, and horizontal infrastructure, such as runways and roadways. Michael Baker brings to the Authority the broad skills and strong management to integrate vertical and horizontal infrastructure for airports. Terminal buildings and other facilities play a key role in the operating efficiency, security and safety of today's airports. Their design demands attention to evolving needs and competing priorities.

Michael Baker knows how to help clients achieve their design goals whether for terminal or concourse designs, rehabilitations, or security upgrades. Our aviation architectural unit offers an integrated, comprehensive approach to facility planning and design that can be selectively applied according to project requirements. Our services include architectural, structural, and mechanical engineering; pluming and fire protection design; electrical engineering; and data system design. Our architects, engineers, and planners will work closely with the Authority from the earliest project stages to develop a solution that best meets your needs in the most cost-effective manner. Our aviation architectural unit has project experience in many of the identified needs of the airport, including but not limited to:

- Facility Assessments
- Airport Terminals
- Facility & Asset Management
- Building System Design
- Aircraft Hangars
- LEED® Certified Facilities
- Cargo Buildings

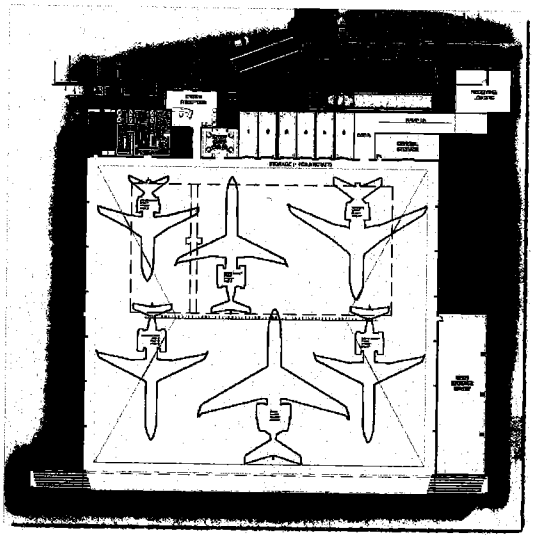


Image 5: *Raleigh County Memorial Airport Maintenance Facility Planning Services Project.*

Aviation Planning

Michael Baker's team offers planning services ranging from a more generalized master plan study or update to detailed analyses necessary for specific airport components, such as airside planning, terminal facilities, landside elements, and environmental requirements. Michael Baker has assisted many airports similar in size to CXP in planning and executing their development plans while maintaining a safe, fiscally-sound airport that remains compatible with the surrounding environment. Some specific planning services include:

- Investigation and preparation of ALP updates
- Investigation and preparation of forecast, demand/capacity analysis, and airspace analysis
- Investigation and preparation of facility planning, strategic planning, feasibility studies, and other planning documents

- Investigation and preparation of conceptual and/or detailed drawings
- Additional GA planning-related items, site investigation, and plan preparation, as needed

Environmental Planning, Sustainability, and Safety Risk Management

Michael Baker has been instrumental in providing environmental planning services to ensure airport success for a wide variety of projects. Our planning services are tailored to the needs of each project. This includes scoping, budgeting, and scheduling in coordination with the client and the aviation design team, to ensure the applicable environmental regulatory requirements are identified and addressed effectively, while avoiding unnecessary expense and delays later as the project progresses. These services may involve preliminary environmental screening for feasibility/ constraints analysis and siting studies, with additional investigations needed in support of the NEPA process and permitting. We have extensive experience in preparing NEPA documentation for airport projects, which can range in complexity from Categorical Exclusions (CATEX) to EAs, Environmental Impact Statements (EIS), and Environmental Impact Reports (EIRs). Our team's permitting expertise includes the full range of field surveys, technical analyses, documentation, and agency coordination for permit acquisitions at the local, State, and Federal levels.

AVIATION ENVIRONMENTAL PROCESS UNDERSTANDING

Michael Baker's team understands the importance of early coordination with Federal, State, and local agencies, and we strive at every phase of a project to adhere to the strict NEPA guidelines and procedures required by FAA. *Michael Baker's multi-disciplined staff successfully guides airports through the FAA environmental approval processes in an efficient and coordinated manner.*

Our team's deep, local knowledge of regulations and permitting provides the necessary services to ensure all projects are compliant with applicable laws and regulations. Potential environmental consequences should be identified during conceptualization planning of a project, thus furnishing the Authority with the most accurate facts upon which to base a future development decision. Our team will build upon existing data in prepared reports to avoid duplication in data research and preliminary investigations, saving the Authority time and money.

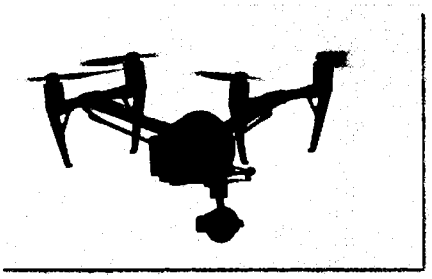
We have approached projects using the principles of FAA's Safety Risk Management Documentation including development of a Safety Baseline, Hazard Identification, and Risk Analysis and Safety Risk Determination, as a structure for project progression.

CADD and GIS

Michael Baker's team is well versed in the airport requirements for GIS. CADD and ArcGIS are applications we use daily and are prepared to use as your extension of staff. We have assisted in the updates to previous ALPs through our execution of other project coordination efforts. Our team's depth in GIS is unmatched, as Michael Baker has over 200 employees in our GIS practice and 12 GIS professionals located in our Reno office. No GIS or asset management task is too big or too small for us to handle for the Authority.

Programming and Cost Estimating

Our team has an established and deep understanding of the local costing environment. Any project or program that is developed under this planning contract can be estimated by this team. From the planning standpoint, it is imperative that the cost ramifications associated with projects proposed to enable budgeting of funds accordingly are understood. Depending on the nature of the project being costed, the team member with the greatest understanding in that area will generate the cost estimate associated with the work so that their specific knowledge is utilized to develop an accurate cost estimate.



Images 6 & 7: *Michael Baker provides other on-call aviation specialty services such as LiDAR, UAS, fire protection, and traffic.*

Other Specialty Resources

With the understanding that this contract will be on-call, our team is prepared to meet the wide variety of aviation A/E needs that the Authority may request on an as-needed basis with often quick-turn deadlines. Based on our close proximity to CXP, our team will be a true extension of staff with an abundance of capabilities at your disposal. While we have crafted this team to meet the anticipated needs of the Authority, should a challenge arise that we cannot execute within our team, we will collaborate with the Authority and our industry experts to incorporate a subconsultant with that specific skillset to our dynamic team for the seamless execution of all tasks. Some of the services Michael Baker has utilized at other airport and airfield facilities includes UAS, Mobile LiDAR, fire protection, and bid and construction support services, as noted in the organizational chart under other specialty resources available. The team is ready, eager, and more than prepared to continue to assist the Authority through the range of aviation A/E services.

Office / Work Location

Michael Baker's services and contract for the Authority will be run out of the firm's Reno branch office, with specialty support and expertise being provided from various nationwide offices in California, Pennsylvania, Arkansas, Georgia, Chicago, Texas, Ohio, Washington, Maryland, and Virginia. ***Michael Baker's Reno office is located 26 miles from*** **CXP** ***and our Project Manager lives two miles from CXP*** allowing us the availability and commitment to ensure effective, hands-on, local services throughout the life of the contract. Michael Baker has become proficient at work sharing across the company, utilizing file sharing platforms such as SharePoint, Microsoft Teams, WebEx teleconferencing, and regularly scheduled conference calls with team members throughout the life of the project. The Reno office, or "home office" for this contract, will host the project data on their secure server that is backed up nightly and will provide permissions to the project team for access. This method helps centralize project work and ensures that each task is provided the very best resources, regardless of location.

Image 8: *Michael Baker's branch office location in South Reno.*

Relevant Experience Overview

With depth of experience, resources, and proven commitment to presence and responsiveness, Michael Baker will rigorously act as an extension of the Authority's staff to administer the required consulting services for airport design and to integrate with design, construction, architectural, environmental, and other projects over the life of the contract. Successfully acting as an extension of staff means proactively pursuing the many tasks associated with airport development without creating a paperwork burden for the Authority. This level of service includes the on-time project submissions, close coordination with FAA's decision makers, and exceptional quality of deliverables. The following is a list of a few of the recent, commercial airports for which Michael Baker is currently providing or has provided on-call professional architectural, engineering, and planning service.

AIRPORT NAME	PROJECT	SERVICES COMPLETED
Schuylkill County Airport (ZER)	On-Call Aviation Engineering Consulting Services	Ongoing
Norwalk-Huron County Airport (5A1)	General Airport Engineering and Planning	Ongoing
Hartsfield-Jackson Atlanta International Airport (ATL)	Multi-Discipline Services	Ongoing
Pittsburgh International Airport (PTI)	Multi-Discipline Services	Ongoing
BWI Thurgood Marshall Airport (BWI)	On-Call Services	Ongoing
Harrison County Airport (ASL)	General Airport Engineering and Planning Services	Ongoing
Morgantown Municipal Airport (MGW)	On-Call Services	2017
Southern California Logistics Airport (SCLA)	On-Call Services	2014
San Diego International Airport (SAN)	As-Needed Consulting	2015
Long Beach Municipal Airport (LGB)	On-Call Services	2008
Apple Valley Airport (APV)	On-Call Services	2004

Additionally, Michael Baker has worked on recent, civil, project-specific aviation projects for GA, mid-size, and international airports. A highlight of some of those projects are listed below.

PROJECT NAME	AIRPORT
Perimeter Road Improvements*	John Wayne Airport (SNA)
New Run-Up Areas, Perimeter Security Fencing, Secure Access Entries, and Wall Weather Access Roadway*	Apple Valley Airport (APV)
Runway Extension Design and EA and Perimeter Fence Design*	ZER
Runway 16-34 Overlay and Taxiways "C" and "L" Drainage Plans/ Analysis and Parking Structure*	LGB
Facility Site Analysis	Chino Airport (CNO)
Rehabilitation of Runway 13L-31R, Taxiway E Connectors, and Construction of Taxiway J	Palm Springs International Airport (PSP)
Rehabilitation of Taxiway Throats and Aprons, Aircraft Ramp, Runway Guard Lights, and Treatment BMP	Bob Hope Airport (BUR)
Airfield Pavement Rehabilitation and Runway 3-21 Rehabilitation, Terminal Apron and Taxiway "F" Pavement Rehabilitation	Mid-Ohio Valley Regional Airport (PKB)
Environmental Assessment and Runway 9/27 Shift and Reconstruction*	Northeast Ohio Regional Airport (HZY)
Runway 13-31 Reconstruction and Lighting Upgrade*	Harrison County Airport (8G6)
North Airfield Improvements	Cleveland Hopkins International Airport (CLE)
Pavement Management Program	Dallas/Fort Worth International Airport (DFW)
Runway 13-31 Rehabilitation*	Harrisburg International Airport (MDT)
A380 Airfield Upgrades Design, Pavement Evaluation Program, RW 8L/26R Reconstruction, Terminal Embankment and Utilities Relocation*	ATL
Fuel Farm Design and Construction Phase Services	Douglas Municipal Airport (DQH)
Runway 03R-21L Runway Safety Area Improvements and Runway 2L/20R Rehabilitation and Airfield Signage Replacements	DeKalb-Peachtree Airport (PDK)

**Denotes projects that were performed as part of an on-call contract.*

Capability to Perform Work / Meet Schedules

Michael Baker's airport engineering, planning, environmental, and construction experience has been extensive on airport projects throughout the U.S. While we have completed projects at some of the world's largest

airports, such as ATL, BWI, and PIT, we provide significantly more services and perform more projects for medium-hub commercial service airports and all sizes of GA airports. ***We have the staff and resources to perform the Authority's CIP projects in a timely manner. In most cases, we can either meet and/or beat project schedules based on our knowledge of local, State, and Federal standards, permits, and procedures.*** Examples of meeting fast-track schedules, when the need arose, include the following projects:

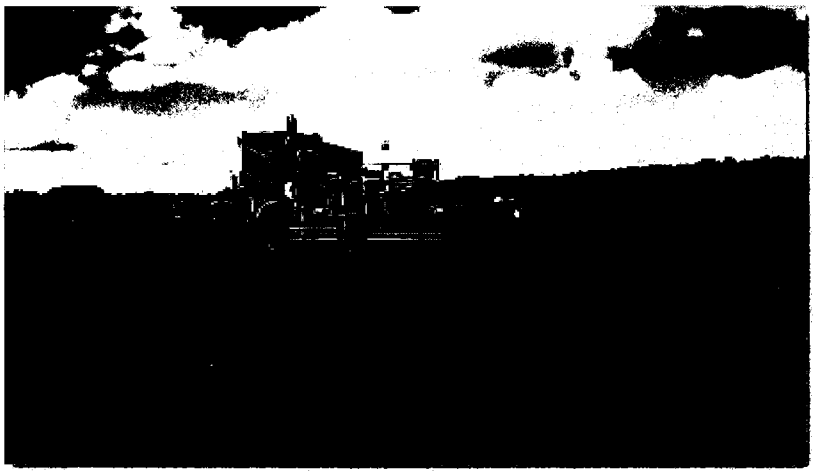


Image 9: *HZY Taxiway A West on-site pavement rehabilitation.*

HZY Taxiway A West Rehabilitation | Ashtabula, OH

In April of 2016, the Ohio Department of Transportation (ODOT) called the airport to state that extra money was available for projects that were ready to go. Michael Baker designed and bid the project in time to meet ODOT's schedule so that the project could be awarded and completed in 2016. We were authorized to execute the design on April 22, 2016, and we had bid documents on the street by May 16, 2016. Bids were received on June 1, 2016 and turned into ODOT a week later once approved by the Board. The project was constructed in the fall of 2016, and Michael Baker also performed construction administration on the project to ensure that it was constructed as designed. Each of the design, construction administration, and construction costs all came in at or below budget.

5A1 Crack Seal and Remark Runway 10-28, Taxiways, and Apron | Norwalk, OH

In the spring of 2015, Michael Baker was selected to complete this project. Full authorization was granted on June 8, 2015. Plans and specifications were prepared and the project was publicly bid on June 25, 2015, with bids due on July 10, 2015. This tight schedule was needed to meet the FAA funding schedule for 2015, which was necessary since the runway was in very critical condition with major cracks, some wider than three inches. The project received an FAA grant in September of 2015 and the majority of construction was completed in the late fall of 2015. Michael Baker also performed construction administration on this project to ensure it was constructed as designed. The design, construction administration, and construction costs came in at or below budget.

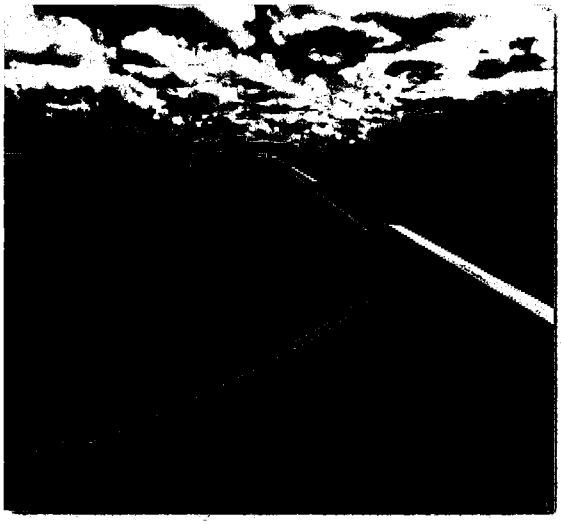


Image 10: *5A1 mock-up of the rehabilitation of the runway, taxiway, and apron.*

Section 2:
Project Understanding/Approach

Michael Baker
INTERNATIONAL

SECTION 2: PROJECT UNDERSTANDING / PROJECT APPROACH

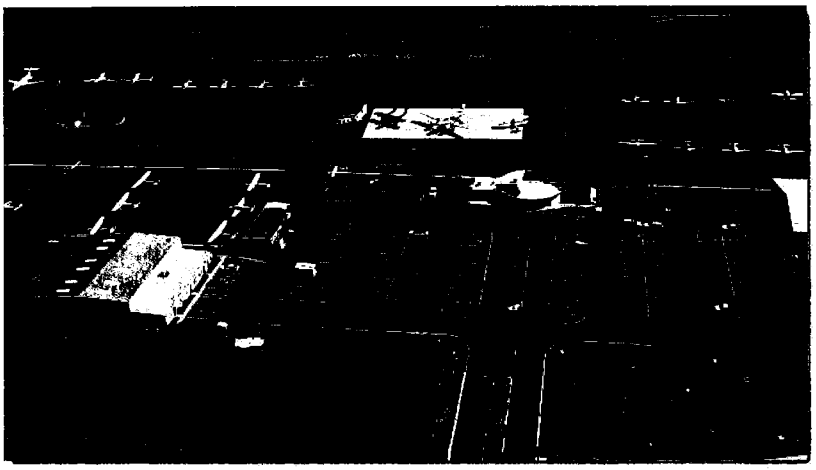


Image 11: *An aerial of a part of CXP's facilities including the terminal, parking lot, and partial runway.*

Understanding Challenges / Special Concerns

The Authority desires to make improvements to CXP that will assist in the goal of becoming a successful, self-sustaining GA airport while conforming to FAA requirements. Whether that involves maintaining existing pavement or expanding CXP's facilities, Michael Baker's team is poised to support the Authority with the A/E services necessary to achieve these goals. Over the past decade through on-call general engineering design contracts and standalone contracts, Michael Baker's team members have gained extensive insight and established the relationships necessary to assist the Authority with bringing its vision to reality. Under new leadership, the vision may be revisited and various aspects reviewed in more detail as priorities shift. Our team's experience with on-call planning contracts at airport systems will serve as a solid foundation to assist with your aviation needs while also bringing new and innovative ideas and perspectives to meet the evolving needs of CXP.

The Carson City Airport 2018 Project and 2019-2023 ACIP contain identified projects for each of the next five years that encompass the plan, including the anticipated work to be covered by an FY2018 grant. CXP is working with Carson City's Planning Department to develop an Airport Overlay to allow for CXP development without the requirement for a Conditional Use Permit (CUP) every time a project is proposed. This will save time and thus make new development at CXP more attractive to potential developers and users.

Michael Baker has also noted that the Authority has dates indicated for the submission of CatEx documentation for each of the projects in the current ACIP. We understand the importance of maintaining the schedule of the environmental documentation so the related projects are constructed per the ACIP schedule. Michael Baker's team will assist the Authority with CatEx document preparation and submission as part of the FAA grant requirements.

Projects listed in the RFQ are nothing new to us, and we are excited about the possibility of working with the Authority on them. All work will be designed and constructed to FAA standards (unless a modification is necessary) and we will assist in the entire process from project conception and grant pre-applications to filing 7460-1's, overseeing the project, and closing out the grant. We are confident that we can complete each project successfully while keeping the ultimate goals of CXP in mind. We will communicate frequently and effectively to have a complete understanding of each project, to keep

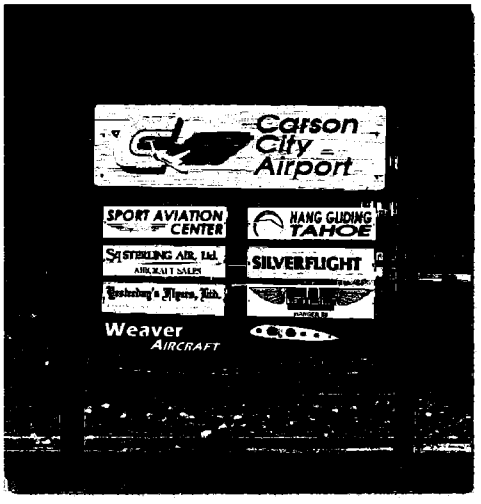


Image 12: *CXP entrance sign and some of the affected stakeholders.*

the Authority in the loop of project progress, as well as any updated goals of the Authority as they adapt and change over time.

Airport Master Plan (Engineering Input)

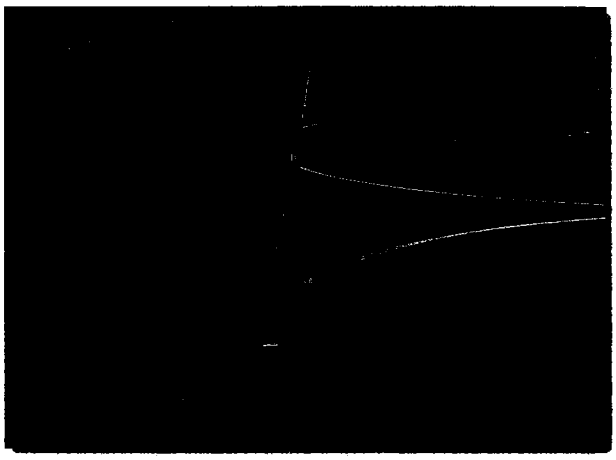
An important aspect of any facility master plan is to provide the entire picture of not only what is already in existence, but the most cost effective, efficient way of providing facilities for the vision of the client. In the case of Airport Master Plans, engineering input can save time and money as well as provide ideas on how to more efficiently and safely carry out airfield operations within FAA parameters.

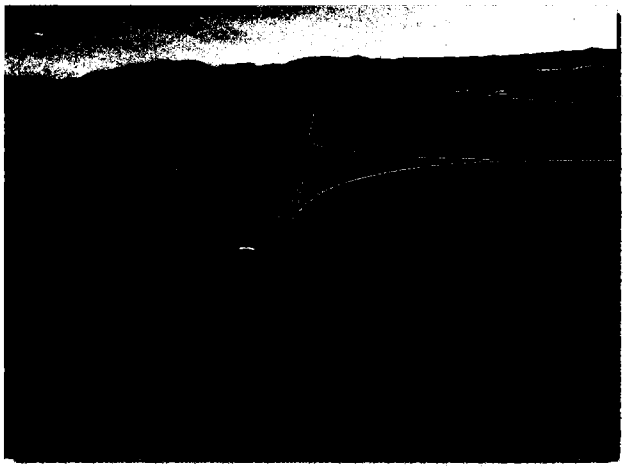
2018 Grant Application Projects

In the following paragraphs, we highlight each project within the Authority's RFQ and ACIP and discuss any special areas of concern and the resolutions therein

- **Project 1: Rehabilitate Taxiways A, B, C, D, Taxilanes E & F and Access Road**

  The first project is to rehabilitate the existing pavements of the taxiways and taxilanes. We will work with the Authority to evaluate existing conditions and provide recommendations/ construction plans to maintain a PCI of 70 or greater. Recommendations such as crack sealing, applying a slurry seal or rejuvenating product such as GSB-88 can provide the airport with extended pavement life for at least the life of the current ACIP. Other options can be evaluated, such as mill and overlay for sections that may be exhibiting more severe distresses. All options will consider the requirements needed for air operations construction such as Foreign Object Debris (FOD) and bird habitats. Michael Baker's team has significant experience providing pavement rehabilitation services at facilities similar to CXP. We will develop a plan that effectively improves pavement conditions while minimizing any impacts to the tenants and users.





Images 13 & 14: *Taxiway A looking east and Taxiway D looking west.*

- **Project 2: Replace Automated Weather Observation System (AWOS) Equipment and Radios**

  The second project for 2018 is the upgrade of the AWOS and Radios. These systems are critical for safe air operations and provide accurate and on-time weather information for aircraft operating at CXP. We have experience working within the requirements of the FAA installing new or replacing existing AWOS facilities. We have completed AWOS projects at Magnolia Municipal Airport (AGO), South Lafourche Leonard Miller Jr. Airport (GAO), and Delaware Municipal Airport (DLZ).

2019-2023 ACIP Projects

- **Project 1 (2019): Replace Perimeter Wire Fence with Chain Link Fence**
  Safety and security are paramount at an airport, and an appropriate security fence provides not only peace of mind to the airport and its tenants but, also the flying community. CXP does not currently have a continuous chain link perimeter fence. A large portion of the airfield is controlled by an existing woven wire fence. The six-foot-high fence with barbed wire will be designed and constructed to comply with FAA construction specification F-162. We will also work with the Authority to incorporate adequate and appropriate access controls in the new fencing. Special considerations such as temporary security measures and coordination with flight operations will also be considered with the construction of the new fencing.

- **Project 2 (2020): Rehabilitate Main Apron**
  As with the taxiway pavement rehabilitation, the Main Apron Pavement Rehabilitation will require the same considerations for flight operations minimizing the impact to operations. Careful and regular coordination with the FBO during the development of the construction phasing will ensure that impacts to airport operations will be minimized as much as possible. Options such as crack sealing the existing control joints, applying a slurry seal, and patching, if necessary, will be evaluated to provide the most cost- effective rehabilitation as possible while extending the life of the pavement and improving safety.

- **Project 3 (2020): Reconstruct Perimeter Road**
  The existing perimeter road is in need of rehabilitation and is in varying levels of condition. This project will require an evaluation of the condition and possibly a recommendation of a combination of treatments (rehabilitation, reconstruction) to provide a pavement PCI that will provide a long service life. It is also anticipated that the existing storm sewer running from the main apron will also need to be replaced with a larger diameter pipe to properly accommodate the flows.

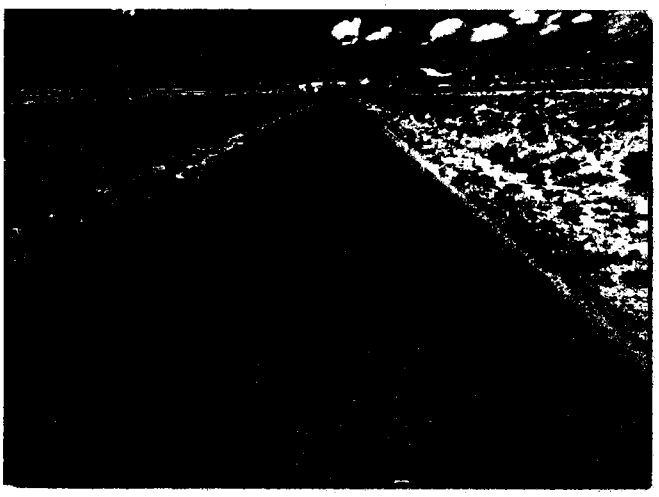


Image 15: *Perimeter Road for overlay.*

- **Project 4 (2021): Rehabilitate Runway 9/27**
  This project will require the most coordination of any of the projects since Runway 9/27 is the "bread and butter" of the airport. In order to prolong the useful life of the asphalt runway, a program of crack sealing and slurry should be employed to increase the PCI as high as possible. We will evaluate the existing pavement to determine the current PCI; and, from there, make recommendations on the best course of action to rehabilitate and re-stripe the runway. We have performed numerous, recent runway rehabilitations at GA facilities and will ensure that it meets the Authority's expectations. Since Runway 9/27 is the lone runway at CXP, an extended closure for the work is not reasonable. The project phasing will be coordinated with the airport users to minimize the impacts. This can be accomplished by working only at night, or having smaller closures during typically slower times during the day. If the project ends up requiring more significant rehabilitation, installing temporarily relocated thresholds can allow for airport operations to continue while construction is ongoing. During the project scoping, we will work to have a full understanding of the operations at the airport as well as the goals of the project to ensure it is a success.

- **Project 5 (2022): Rehabilitate North Apron**
  This project will take much the same route as the Main Apron. Coordination with El Aero Services and other operators in the north apron area will be necessary to reduce the impact of the project as much as possible. Considering this apron was just constructed in 2016, some crack/joint sealing, GSB-88 application, and replacement of pavement markings should be all that is required. This project will also replace Gate #3.

- **Project 7 (2022): Emergency Generator**
  The airport does not currently have back-up power for airfield lighting. This is a safety concern for pilots that may be in the air during a weather event and need airfield lighting in order to land.

- **Project 6 (2022): Replace Gates and Gate Operators**
  This project will replace the gates and gate operators at three of the four existing access points that have reached the end of their useful life. Gate #3 is replaced with the North Apron project. These access points will include new cantilever gates with keypads, card readers, and all required shadow loops installed in the pavement. We are experienced with these type of access controls and will ensure the project is completed while continually maintaining access for the airport tenants.

Images 16 & 17: *Gate 1 at the main entrance and Gate 4 at the Arrowhead Drive access road.*

- **Project 8 (2023) Airport Snowplow with Snow Blower and Rotary Broom**
  Snow Removal Equipment (SRE) is available for funding through FAA grants; and, if requested, we can assist the Authority in the grant and procurement process for this new equipment.

- **Project 9 (2023): Snow Removal Equipment Storage Building**
  The airport does not currently have a way to store SRE in a building to protect it from the elements. This project will provide a two-bay structure for the storage of this equipment including the new plow and broom described in Project 8. It is anticipated that this structure will be a pre-engineered steel building (insulated) with power and basic HVAC, if required/desired. Michael Baker's team will ensure that it is constructed in accordance with all local codes and requirements and will assist with the submission of the 7460 airspace analysis for the new structure.

- **Project 10 (2023): Construct East Perimeter Road**
  The airport currently does not have a perimeter road that provides access around the east end of runway 9/27. This project will provide access for security purposes in this area. Since this will be an

addition to the impervious area at the airport, we will ensure that the necessary environmental permits/assessments are developed and submitted. Special consideration will be required for the aggregate operation immediately east of the east end of the airport.

- **Project 11 (2023): Hangar Row Taxilanes With Utilities**
  This project provides the critical infrastructure to allow for a developer to lease airport property, construct new hangars and "other airport related facilities". This area is located in close proximity to the existing taxiway network and could provide a developer a great location to construct new facilities with excellent access to the airfield.

- **Project 12 (2023): North Apron Shade Canopy**
  The North Apron currently does not have any sun protection. This project will provide a 40'x300' shade canopy in the southern portion of the North Apron to protect aircraft utilizing the tie-downs from the elements. This area will retain the existing tie-downs and will provide light fixtures and overhead power.

- **Project 13 (2023): Taxiway C Storm Drain**
  This project will mitigate the existing drainage issue that affects Taxiway C. A hydraulic analysis will be performed to ensure that the replacement culverts will adequately carry the design flows to relieve the existing drainage flow issue caused by undersized pipes and those without adequate slope.

- **Project 14 (2023): Obstruction Lighting**
  New obstruction lighting per FAA requirements is required on two separate hills within Bureau of Land Management (BLM) property located within the approach to Runway 27. The current ACIP indicates that BLM has been involved with this project and issued a Finding of No Significant Impact (FONSI)as well as a ROW permit in 2015. Ongoing coordination with the BLM will be required to complete this project. Reno staff has experience and an understanding of how the BLM operates and can assist with this coordination.

- **Project 15 (2023): ALP with Narrative and Exhibit A Property Map**
  This task will provide CXP with an updated ALP to include all of the projects completed as part of the five-year services project, as well as new aerial mapping, key runway elevations, and a new narrative in accordance with FAA Standard Operating Procedure (SOP) 2.00. Any updates to future developments will also be reflected in the narrative and ALP set. The Exhibit A property map will be updated in accordance with FAA SOP 3.00 to reflect the snapshot of airport property at that time. Our staff is well-versed in the requirements of both ALPs and Exhibit A's and will work efficiently to complete these tasks to the satisfaction of the Authority and the FAA.

EXTENSION OF AUTHORITY STAFF

Michael Baker's team not only provides depth of experience in multiple disciplines, but also shares the Authority's goal of seeing CXP achieve its fullest potential. *Michael Baker views our relationship with the Authority as that of a family rather than owner/client/contractor. The Authority's goals are our goals. And, we want to help the Authority succeed.*

General Project Approach

Michael Baker and our team members have provided A/E services in support of airports for many years, and we are committed to do the same for the Authority. Our role in providing these services has been as a responsive, go-to firm. This contract will provide the Authority with continuous "on demand" comprehensive A/E services team for a wide range of technical assignments.

Our management approach is the foundation on which we built the team of personnel devoted to the Authority's contract. We are confident our team has the experience, as well as understanding,

of your airport system to work on the anticipated tasks associated with this contract to meet the Authority's objectives.

Image 18: *Signage outside CXP.*

We maintain an overall goal to be a committed provider for aviation planning and design services. Our management approach is to build upon our cooperative experiences working for the Authority to seek and accept challenges that raise the bar for the services we provide. We are a learning organization; and, as such, we are continuously evaluating our performance internally and seeking feedback to improve the quality of the services we provide.

In an effort to manage the contracting aspects of multiple tasks under this on-call procurement, we will work with the Authority to develop one standard contract that outlines the requirements of both parties. Under this contract, each task assigned to Michael Baker will be assigned a task number and the scope and fee for each project will be developed with the Authority, depending on Authority's specific project needs. Communication is key and we will work with to the Authority make sure your goals and needs are being understood and met for each task.

Michael Baker has developed an in-house Project Management Program entitled *"The Michael Baker Way"* with a primary goal of improving project performance through product delivery excellence. Michael Baker's project managers provide professional project management and team coordination by taking a pro-active role in managing and controlling the direction of their projects. Our project managers are involved in the day-to-day development of any assigned project. This standardized approach ensures projects are professionally managed consistently, which helps ensure each project meets their objectives and stays on schedule and within budget while meeting the client's need. Some of the elements of our program is highlighted below.

Execution, Monitoring, and Control

Through better organization, tools, and methods to monitor budgets with an emphasis on communication and a structured approach to delivering quality the program clearly provides considerable value to our clients. The key features of The Michael Baker Way are:

- Improving project performance through consistency
- Organization and efficiency across the organization
- Defining project management processes for every project, scalable to fit the scope and size of any project
- Serving as a one-stop reference for forms, policies, references, and procedures required to manage a project
- Leveraging existing best practices throughout Michael Baker, referencing accepted and established practices
- Management tools, procedures, and references for project managers by a user friendly, intuitive website

PMP

Prior to initiating activities on a project, the project manager will develop a Project Management Plan (PMP). The PMP is a collection of the pertinent information required to successfully manage a project and serves as a one-stop reference tool for the project manager and project staff. It defines how the project is to be executed, monitored and controlled, and closed upon successful completion. The following are descriptions of the key subsidiary plans that are integrated into the overall PMP:

- **Staff Management Plan:** The Staff Management Plan describes the organization of the project team, usually in the form of an organization chart. In addition, the plan includes a responsibility matrix defining accountability and responsibility for key tasks. The plan also defines the process for assigning resources to complete task orders as well as management of those resources including tracking team member performance, providing feedback, resolving issues, and coordinating changes to enhance project performance.

- **Project Communications and Reporting Plan:** The Communications and Reporting Plan addresses the timely and appropriate generation, collection, distribution, storage, retrieval, and ultimate disposition of project information. The Project Manager is the primary point of contact for both written and verbal correspondence. Issues impacting project progress, concern contractual matters, or affect delivery schedule are immediately communicated by the Project Manager. Communications will be by telephone, e-mail, hard copy, and face-to-face project status meetings. Project status meetings will be conducted with the Authority typically on a bi-weekly basis. Michael Baker will document all meetings and pertinent telephone conversations conducted with the Authority and issue minutes of each within one week. Appropriate Michael Baker staff will be made available to attend meetings, provide briefings, respond to inquiries, make presentations, and/or provide materials at the request of the Authority with notice of two business days. Project Status Reports will be provided monthly, with specific emphasis on project schedule, milestone progress, issues, risks, actions, and decisions.

COMMUNICATION IS KEY

Michael Baker understands that the key to any project success is communication. *The Project Manager will meet regularly with the Authority to ensure that critical items are conveyed to the team and addressed accordingly.*

- **Monitoring Plan:** Adherence to schedules and budgets is a primary responsibility of the Project Manager. Project schedules are developed using Microsoft Project and the planned versus actual performance is reviewed during internal weekly project meetings. Resource allocations are also reviewed weekly and adjusted, if needed, to maintain project schedules. Our Oracle-based Enterprise Resource Planning (ERP) system is used to track and control project financial performance. Expenditures, including labor and ODCs, are updated with weekly time sheets and prompt entry of payments to subs and vendors. Project status including physical progress, financial performance, administrative issues, and quality/client satisfaction is reviewed monthly with management.

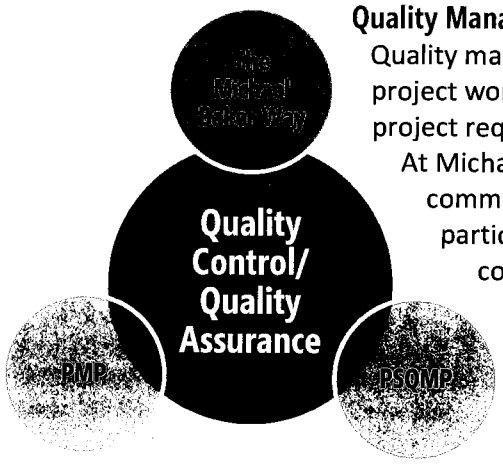
Scope and Change Control

Given the dynamic nature of an on-call planning contract, it will be necessary for Michael Baker and the Authority to have established processes in place to manage change. The Scope and Change Control portion of Michael Baker's PMP defines the procedures by which the project contract terms and conditions may be changed. Change management is concerned with: a) determining that a change has occurred; b) managing the actual changes when and if they occur; and, if necessary; c) modifying the contract and/or contract value to correspond with the change. Change management must be thoroughly integrated with the other control processes (scope control, schedule control, cost control, quality control, etc.). Change management must also comply with the relevant contractual provisions. Scope change is the most common kind of change; others are changes to schedule, cost, and client contacts.

Subconsultant Management

Subconsultant management is recognized by Michael Baker's team as vitally important to ensure excellent project performance. Michael Baker understands its "ownership" of the deliverables, meaning Michael Baker

assumes responsibility for the deliverable, regardless of which subconsultant prepared or contributed to the particular task assigned.



Quality Management Plan

Quality management requires the development and use of processes by which project work is assigned, carried out, checked, and reviewed to meet the client's project requirements and applicable professional standards for technical quality. At Michael Baker, quality is the responsibility of all employees, requiring the commitment of top senior management and the commitment and participation of all project team members. Quality is one of our corporate core values and our policy is stated below.

There are three main components to Michael Baker's approach to quality. First, The Michael Baker Way provides the foundation for Michael Baker's quality management system. Next, PMPs build upon the foundation, and finally, the Project Specific Quality Management Plans (PSQMP) provides the details.

The PSQMP, a document identifying project specific resources and required actions, provides the mechanism for project deliverables to meet both the client's requirements and applicable professional standards for technical quality. The development of the PSQMP is the responsibility of the project manager with input and support from the QA/QC Managers.

The objectives of the PSQMP are to:

- Identify key project quality roles and resources
- Identify and describe quality processes and procedures for the project. These can be either prevention based or inspection based
- Identify specific technical references to be followed, as applicable
- Be the one-stop reference tool for the Project Manager and other project staff in carrying out steps related to quality control and quality assurance (QC/QA)
- Provide the you a concise picture of Michael Baker's quality-related processes and procedures for your project

This team's PSQMP will include, at a minimum, the following:

- Internal and external kick-off meetings and documentation
- Applicable criteria, guidelines, and specifications
- Reports, drawings, and other deliverable format requirements
- Procedures for checking and proofreading calculations, computer models, and deliverables by appropriately trained and experienced personnel who did not prepare the work
- Review of deliverables by senior-level personnel who have extensive experience and knowledge
- Methods for receiving, tracking, and responding to comments

EFFECTIVE QUALITY ASSURANCE

Michael Baker is committed to completing projects that meet our clients' requirements with respect to scope, schedule, budget, and technical quality. Each project has a PSQMP in place. Michael Baker is committed to our quality goals that include:

- *Satisfy specific criteria and requirements in project phases*
- *Recognize, learn and practice standards applicable to project, and provide constructive input towards the improvement of practices*
- *Involve staff in delivery of quality*
- *Recognize productive contributions towards establishing a professional, interactive work environment fostering teamwork, achievement and quality awareness*
- *Maintain and support PSQMPs for use by the team*

- Other items of special consideration applicable to an assignment

We recognize providing quality services and products is the key to the long-term health and well-being of our organizations; and, therefore we actively employ whatever steps are necessary to ensure the Authority receives the services expected. We will provide project deliverables exceeding the requirements and quality standards of the Authority, without extensive review by the Authority.

Image 19: *The Authority vehicle's license plate.*

In summary, Michael Baker's quality policy requires an appropriate QC plan be in place for every project. The plan defines how the work products are to be checked and reviewed to ensure quality. For every project, each deliverable is inspected and tested to validate that project specifications and requirements are met. The checking includes both visual and automated tasks.

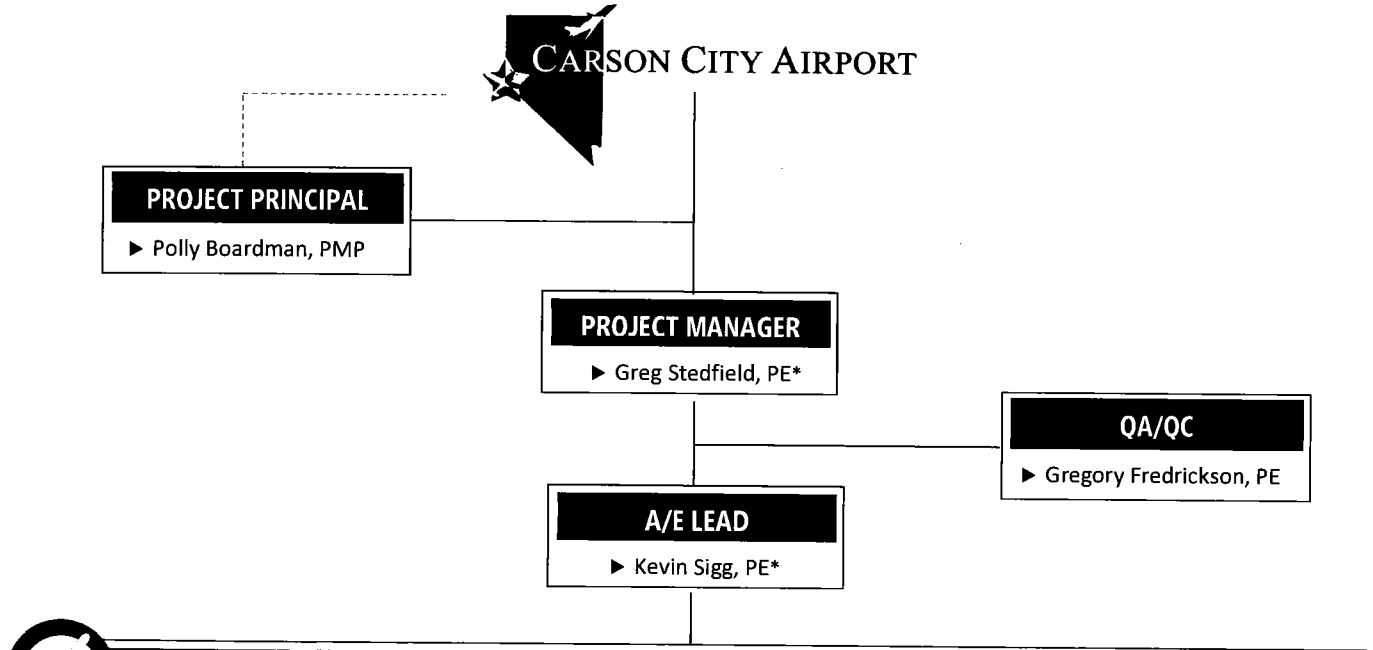
Section 3:
Project Team/Qualifications

Michael Baker
INTERNATIONAL

SECTION 3: PROJECT TEAM / QUALIFICATIONS

Organizational Chart

Detailed in the organizational chart below are the overall project team members, proposed role/position, hierarchy and reporting relationships, and the firm for which each team member works. The team members selected are committed and available to the Authority for the duration of the contract.



TECHNICAL SUPPORT STAFF

Civil
▶ Kevin Sigg, PE*
▶ Brian Anderson, PE
▶ Alan Su, PE*
Yee Ping See, PE, LEED AP*

Planning
▶ Linell Homentosky, CM
▶ Kevin Sigg, PE*
▶ Jim Duguay

Surveying/Mapping/ROW
▶ Gregory Bigby, PLS, WRS* 1

Geotechnical
▶ Mark Gilbert, PE, GE, QSD* 2

GIS/GIT
▶ Polly Boardman, PMP
Jeff Chambers

Water Quality/ Hydraulics/Hydrology
Geoff Brownell, PE, CFM*
Karin Peternel, CFM

Structural
Brad Mielke, PE, SE*

Mechanical/Electrical
▶ Keller Hackbusch, PE* 3
Joseph Fong, PE*

Environmental
▶ Christine Donoghue
Richard Beck, CEP
Margo Nayyar
Nichole Jordan-Davis
Eddie Torres, INCE

Construction Management/ Inspection
Abram Magel, PE 2
Traci Frey 3

Architecture
Erik Tuomy, RA, LEED AP*
Chris Clark, RA, LEED AP

Sustainability
Cyle Cantrell, CM, LEED GA

Value Engineering
Joseph Snyder, PE

OTHER SPECIALTY RESOURCES AVAILABLE

Safety/Risk Analysis
Security
LiDAR
Landscape Architecture

Pavement Management
UAS
Appraisals/Acquisitions
Traffic

Fire Protection
Cost Estimating
Bid & Construction Support Services

▶ Denotes Key Team Members
*Staff licensed in the State of Nevada
Subconsultant Team Members:
1) Bigby & Associates, Inc.
2) ENGEO
3) Dinter Engineering Company (LESB)

Additionally, Michael Baker has over 85 offices and over 5,700 professional team members globally to draw from should any further resources be needed to complete a specific project task or simultaneous phases of work. The firm can provide additional optional services to facilitate further development on a specific scope of work item or to provide overlapping phasing services should the firm be assigned more than one task order at a time.

Subconsultants

We have carefully selected local subconsultants familiar with and capable of handling your facilities. Should the Authority need, we have a vast array of DBE-certified firms we can utilize in order to fulfill any funding needs on specific task orders. Local subconsultants include the following:

Dinter Engineering Company (Dinter) - LESB, Lighting, Electrical, Construction Management/Inspection

Dinter is a Nevada-certified, Local Emerging Small Business (LESB) electrical consulting engineering firm with a corporate office in Reno since 1961. Dinter specializes in airfield electrical systems and has an Airfield Electrical Department dedicated to the design of airfield power, lighting, signage and NAVAIDS systems for runways, taxiways, aprons, and helipads. The firm has a substantial staff of airside electrical personnel – two, devoted, full-time and five half-time just to airport work - all of whom have a long association with this company, are knowledgeable in current FAA, ICAO, and UFC design requirements, and will provide up-to-date designs utilizing the latest technologies and systems. Dinter has performed electrical and lighting projects for Silver Springs Airport, Fallon Airport, Battle Mountain Airport, and the Reno-Stead Airport.

Bigby and Associates, Inc. (Bigby), Surveying/Mapping/ROW

Bigby was established in Reno in April of 1998 offers land surveying, water rights, and consulting services to the private, public, and engineering community. Bigby consists of Professional Land Surveyors licensed in the state of Nevada. Bigby offers GPS as well as conventional surveying, including the latest Trimble GPS and total stations for all survey-related services. Calculations and mapping are performed using AutoCAD Civil 3D software. Each project is managed by a licensed Professional Land Surveyor who will directly participate in the daily activities in order to provide quality control, directly manage project costs, and to ensure prompt response and delivery of requested products. Survey services include:

- ROW Mapping
- Engineering Design Surveys
- American Land Title Association (ALTA) and the American Congress of Surveying and Mapping (ACSM) Surveys
- Legal Descriptions
- Boundary Surveys
- Construction Staking
- As-Built Surveys
- Subdivision Mapping
- Parcel Mapping
- Control Surveys
- Topographic Surveys
- Elevation Certificates
- Water Rights Mapping Services

ENGEO, Geotechnical, Construction Management/Inspection

ENGEO is an award-winning, employee-owned firm of geotechnical and civil engineers, geologists, hydrologists, environmental scientists, and construction quality assurance field representatives. Founded in 1971, they have offices throughout California, Nevada, and New Zealand. ENGEO is a leader in transportation design with a broad range of expertise and experience in transportation

projects, including airport, intermodal, rail, roadway, highway, and bridge projects. Clients include Sacramento International Airport, San Francisco International Airport, and many municipal airports around the state of California. ENGEO provides a range of services from geotechnical, environmental, and hydrology, to consultation regarding construction costs, value engineering strategies, and project funding.

ENGEO's Rocklin soil and materials testing laboratory is managed by a registered civil engineer. Accredited by USACE, Cement and Concrete Reference Laboratory (CCRL), and American Association of State Highway and Transportation Officials (AASHTO) Materials Reference Laboratory (AMRL), tests are performed in conformance with ASTM and AASHTO test methods in accordance with International Building Code standards.

ENGEO's engineers and geologists have helped companies and public agencies manage their project development risk, drive down construction costs, and streamline project schedules. ENGEO's geotechnical services are targeted to address each client's specific objectives. Geotechnical services include:

- Foundation Design
- Slope Stability and Seepage Analysis
- Seismic Analysis
- Levee and Dam Design
- Construction-Phase Testing and Observation
- Subgrade Stabilization
- Grading Design
- Subsurface Characterization
- Earthquake Engineering
- Instrumentation and Monitoring
- Laboratory Testing
- Pavement Analysis and Design
- Seismic Retrofit
- Fault Characterization

Key Project Team Members Bio Resumes

MS. BOARDMAN'S HIGHLIGHTS

Years of Experience: *19*

Education:

- *BS, Geological Sciences, University of Nevada, Reno*

Registration(s)/Certification(s):

- *Project Management Professional (PMP), NV, 2011, 1397532*

Polly Boardman, PMP | Project Principal, GIS/GIT

Ms. Boardman has worked with Enterprise GIS databases since 2002, assuming the responsibility as quality assurance manager, then landbase production manager, then project and operations manager in the Reno office. In these roles, she managed all editing, analysis, and application development projects within the program. She innovated workflows and toolsets for faster, more qualitative deliverables. She currently determines the manpower and method needed for each project, both nationally and internationally, to be fulfilled in a timely manner. As a Native Nevadan, she coordinates all business out of northern Nevada region, including GIS, UAS, land development, environmental and water resources, aviation services, and architecture. She performs project management activities, forecasting, budget control, and supports vice presidents and other regions as needed.

Key Relevant Experience Includes:

- **Carson City Public Works On-Call GIS Services** | Carson City, NV | Project Manager
- **NDOT UAS On-Call Contract** | Statewide, NV| Project Manager
- **AT&T GIS Land Base Data Maintenance Program** | Statewide, CA/NV| Operations Manager

Greg Stedfield, PE | Project Manager

Mr. Stedfield is a licensed professional engineer in multiple states, including Nevada, with a technical background in general civil engineering, land development, infrastructure, and construction administration/ inspection. As a native Nevadan has been responsible for planning, design, and project management of numerous infrastructure projects. His expertise includes airport paving/layout, site and roadway layout, site paving and striping, site grading, storm drainage design, erosion control/SWPPPs, sanitary sewer master planning and network design, and water distribution master planning and network design. His experience includes feasibility and cost analysis studies, preliminary feasibility design, land use entitlements and zoning, construction drawing and document preparation, on-site civil engineering, project scheduling, as well as overseeing and reporting of job progress and preparing construction cost estimates.

MR. STEDFIELD'S HIGHLIGHTS

Years of Experience: *26*

Education:

- *BSCE, Civil Engineering, California State University, Sacramento*

Registration(s)/Certification(s):

- *Professional Engineer, Civil, NV, 2012, 21678*
- *Professional Engineer, Civil, CA, 2000, 60606*
- *Professional Engineer, Civil, TX, 2011, 108012*
- *Professional Engineer, Civil, OR, 2015, 90735*

Key Relevant Experience Includes:

- **Westover Air Reserve Base (CEF) Renovate Runway Overruns and Aircraft Apron Pavement Repair** | Chicopee, MA| Senior Engineer
- **Anderson Air Force Base (UAM) PAR Tanker Hangar and Fuel Systems Hangar** | Guam| Civil Discipline Director
- **DFW Terminal A Loading Dock** | Dallas, TX | Senior Engineer
- **Puerto Rico International Airport (SJU) Renovate Baggage Handling System** | San Juan, Puerto Rico | Senior Engineer

Gregory Fredrickson, PE | QA/QC

Mr. Fredrickson has 23 years of experience dedicated to airport design, construction, and planning. He has worked on numerous airport projects across the country, ranging from runway reconstruction to concourse extensions and additions to landside roadways improvements. The larger projects on which he has worked over the years include the design and phasing of the Dulles International Airport (IAD) people mover system between their terminals, the 10-acre apron expansion and modification for Continental Airlines Concourse D at CLE, and the U.S. Airways seven-gate terminal and apron expansion at Boston Logan International Airport (BOS).

MR. FREDRICKSON'S HIGHLIGHTS

Years of Experience: *23*

Education:

- *BS, Civil Engineering, Drexel University*
- *BS, Architectural Engineering, Drexel University*

Registration(s)/Certification(s):

- *Professional Engineer, MD, 1999, 200432*

Key Relevant Experience Includes:

- **BWI/MTN Comprehensive Design Services** | Baltimore, MD | Principal in Charge
- **ACY Professional On-Call Aviation Consulting** | Egg Harbor Township, NJ | Technical Advisor
- **IAD Automated People Mover System** |Dulles, VA | Discipline Manager
- **BWI Runway 15R De-icing Pad and Taxiway P Pavement Rehabilitation and Standards Compliance** | Baltimore, MD | Technical Advisor
- **Tipton Airport (FME) Comprehensive EA** | Odenton, MD | Project Manager

Kevin Sigg, PE | Engineering Lead/Planning

Mr. Sigg's experience includes working in aviation for over eight years. He has been involved with numerous design projects of varying complexity including runway and taxiway rehabilitation/ reconstruction, airfield lighting/signage, airfield planning, and an airfield arrestor system. In addition to design, Mr. Sigg has been on several general engineering and planning services contracts and has been the lead Resident Project Representative on numerous airfield construction projects. He is well versed in FAA design and construction requirements, and ensures every project is completed to the satisfaction of the client. His attention to detail minimizes errors and reduces cost overruns.

MR. SIGG'S HIGHLIGHTS

Years of Experience: *9*

Education:

- *MBA, Aviation, Embry-Riddle Aeronautical University*
- *BS, Civil Engineering, Ohio Northern University*

Registration(s)/Certification(s):

- *Professional Engineer, NV, 2017, 025063*
- *Professional Engineer, OH, 2015, 80205*
- *Professional Engineer, IN, 2017 11700112*
- *Professional Engineer, MI, 2016, 6201065058*

Key Relevant Experience Includes:

- **PKB Pavement Rehabilitation Program and Rehabilitation of Runway 3-21, Terminal Apron, and Taxiway F Pavement Rehabilitation** | Wood County, WV | Designer
- **HZY Runway 09-27 Shift and Reconstruction**| Jefferson, OH | Designer
- **PHD Rehabilitate Runway 14-32**| New Philadelphia, OH | Project Manager
- **CLE North Airfield Improvements** | Cleveland, OH | Project Engineer
- **DFW Pavement Management Program** | Dallas-Fort Worth, TX | Civil Engineering
- **MDT Rehabilitation of Runway 13-31** | Middletown, PA | Civil Associate

MR. ANDERSON'S HIGHLIGHTS

Years of Experience: *32*

Education:

- *BS, Civil Engineering, California State University, Long Beach*

Registration(s)/Certification(s):

- *Professional Engineer, Civil, CA, 1996, 55298*
- *Professional Engineer, Civil, CO, 2016, 0051029*

Brian Anderson PE | Civil

Mr. Anderson is a senior project manager in transportation with extensive experience focused in the technical development and management of transportation systems including various arterial highway and state route highway systems; rail at-grade and grade separations crossings, safe routes to school and multi-use trail design, as well as both commercial and GA projects. His projects range in size and complexity, following Federal, state, and local design standards and funding parameters. Mr. Anderson is familiar with working under Local Assistance (LAPM) contracts, and direct Federal and State Grant projects.

Key Relevant Experience Includes:

- **SNA John Wayne Perimeter Road Improvements**| Orange County, CA | Project Manager
- **BUR Aircraft Ramp, Taxiway Throats and Aprons, Runway Guard Lights Design, Treatment BMP, and Construction Support Services**| Burbank, CA | Project Manager
- **SAN As-Needed Consulting Services** | San Diego, CA | Project Manager
- **PSP Improvements** | Palm Springs, CA| Project Manager

Alan Su, PE | Civil

Mr. Su is a Project Manager in Michael Baker's Transportation/Public Works Department and is proficient in roadway design, grading, drainage, signing, striping, and stage construction. Mr. Su specializes in arterial geometric alignment, street rehabilitation, median modification, highway plan production, and construction estimates.

MR. SU'S HIGHLIGHTS

Years of Experience: *19*

Education:

- *BS, Civil Engineering, University of California, Irvine*

Registration(s)/Certification(s):

- *Professional Engineer, NV, 2004, 016623*
- *Professional Engineer, CA, 2004, 66042*
- *Professional Engineer, UT, 2010, 7759341-2202*
- *Professional Engineer, AZ, 2004, 41216*

Key Relevant Experience Includes:

- **APV Run-Ups and Perimeter Fencing** | San Bernardino County, CA | Project Engineer
- **SNA John Wayne Perimeter Road Improvements and Fuel Farm Service Road Feasibility Study** | Orange County, CA | Project Engineer
- **LGB Taxiways "C" and "L" Drainage Plans and Analysis** | Long Beach, CA | Project Engineer

Linell Homentosky, CM | Planning Lead

Ms. Homentosky is a project manager and senior aviation planner with over a decade of experience. She has been a key contributor to aviation planning projects for commercial and GA airports throughout the country. Ms. Homentosky's experience includes a magnitude of on-call planning tasks associated with multiple airports and airport systems, state aviation system planning, airport master plans and airport layout plans, and significant collaboration with stakeholders on large-scale development projects. Prior to consulting, Ms. Homentosky worked for the City of Philadelphia's Division of Aviation. Her experience in both the public and private sector is integral to her understanding of client's needs and in turn, the successful execution of aviation projects.

MS. HOMENTOSKY'S HIGHLIGHTS

Years of Experience: *11*

Education:

- *MBA, Enterprise Resource Planning, University of Scranton*
- *BS, Professional Aeronautics, Kent State University*

Registration(s)/Certification(s):

- *AAAE CM, PA, 2006*

Key Relevant Experience Includes:

- **Wheeling-Ohio County Airport (HLG) Airport Master Plan Update** | Wheeling, WV | Planner
- **ZER On-Call Aviation Engineering Consulting Services** | Pottsville, PA | Planner
- **ATL RW 9L End Around Taxiway Phase 1** | Atlanta, GA | Planner

Jim Duguay | Planning

Mr. Duguay is responsible for the preparation of comprehensive airport planning and environmental studies including master plans, layout plans, statewide system plans, noise compatibility studies, environmental assessments, new airport site selection and feasibility studies, and airspace obstruction studies. His work skills include airport inspections, AGIS, forecasting, demand capacity, facility requirements, alternatives development, cost estimating, financial feasibility, minimum standards, zoning, project management and public involvement. He has conducted a variety of planning projects at more than 30 different airports ranging from large commercial service facilities with 1+ million passenger enplanements to small GA airports with turf runways. At the age of 18, Mr. Duguay received his private pilot's certificate with instrument rating and has logged hundreds of hours in a variety of single and multi-engine aircraft. He holds a Remote Pilot Certificate for Small UAS. Mr. Duguay's years of dedication to professional aviation planning and airport management, coupled with his experience as

MR. DUGUAY'S HIGHLIGHTS

Years of Experience: *25*

Education:

- *BS, Aviation Management, Auburn University*

Registration(s)/Certification(s):

- *Private Pilot Certificate – Instrument Rating, 1991*
- *UAS Remote Pilot Certificate, 2016, 3942794*

an active pilot, provide a unique understanding of today's aviation system, so critical to successful project achievement.

Key Relevant Experience Includes:

- **CAE Airport Master Plan Update** | Columbia, SC | Project Manager
- **Proposed Oak Ridge Airport Master Plan and Preliminary Planning Study** | Oak Ridge, TN | Project Manager
- **MSL Master Plan Update**| Muscle Shoals, AL | Project Manager
- **HSV Master Plan Update**| Huntsville, AL | Project Manager
- **BFM Airport Layout Plan Update**| Mobile, AL| Project Manager

MR. BIGBY'S HIGHLIGHTS

Years of Experience: *37*

Registration(s)/Certification(s):

- *Professional Land Surveyor, NV, 9102*
- *Professional Land Surveyor, AZ, 28714*
- *Professional Land Surveyor, OR, 2851*
- *Registered Water Rights Surveyor, NV, 913*
- *Hazardous Waste Works Certificate and First Aid*
- *Mine Safety and Health Admin. Certificate of Training*
- *API/BP Worksafe Safety Training Certificate*
- *RailSafe Railroad* Safety Training Certificate
- *OSHA 10-hour Occupational Safety and Health Training Course*

Gregory Bigby, PLS, WRS | Surveying/Mapping/ ROW

Mr. Bigby has 37 years of experience providing land surveying and consulting services throughout northern Nevada and California. He founded Bigby in 1998 and is a member of the Nevada Association of Land Surveyors.

Key Relevant Experience Includes:

- **Nevada Air National Guard, Reno, Stead Lease Boundary Survey** | Reno, NV | Surveyor
- **Fallon Naval Air Station Surveying** | Fallon, NV | Surveyor
- **El Centro Naval Air Station Surveying** | El Centro, CA | Surveyor

Mark Gilbert, PE, GE, QSD | Geotechnical

Mark has been practicing geotechnical engineering since 1985. He has been with ENGEO since 2002. He has directed and managed hundreds of geotechnical investigations for government, residential, and commercial projects throughout Northern California and Western Nevada. He has significant experience with complex soil conditions including expansive soils, organic deposits, and difficult geologic conditions. Mark has also extensively studied design and analysis of both shallow and deep foundations for complex projects, including shallow footings, standard and post-tension mat foundations, steel and concrete driven piles, and large diameter drilled shafts.

MR. GILBERT'S HIGHLIGHTS

Years of Experience: *33*

Education:

- *MS Geotechnical Engineering Arizona State University 1985*
- *BS Civil Engineering Arizona State University 1983*

Registration(s)/Certification(s):

- *Professional Engineer, NV 17590Geotechnical Engineer, CA 2191*
- *Professional Engineer, CA 42155*
- *Registered Civil Engineer, AZ 30816*
- *CASQA QSD Certified, CA 00924*
- *ICC Reinforced Concrete 299599683*
- *Nuclear Gauge Operator, CA 9090*

Key Relevant Experience Includes:

- **Sacramento International Airport (SMF) LCNG Fuel Facility** | Sacramento, CA | Project Manager
- **Colusa County Airport (O08) Consulting Services** | Colusa, CA | Principal in Charge
- **Georgetown Airport (E36) PMP** | Placerville, CA | Principal in Charge
- **Oakdale Municipal Airport (O27) QA Review** | Oakdale, CA | Principal in Charge

MR. HACKBUSCH'S HIGHLIGHTS

Years of Experience: *22*

Education:

- *BS, Electrical Engineering, 2001*

Registration(s)/Certification(s):

- *Professional Engineer, NV, 18326*

Keller Hackbusch, PE | Lighting, Electrical

Mr. Hackbusch has 22 years of experience in electrical project management, design, and construction observation services. He is a manager of Dinter's Airfield Electrical Department and Chief Executive for the firm. Mr. Hackbusch has considerable airfield project experience that includes work for 70 airports and 14 military air bases in 15 states. Mr. Hackbusch has lead educational presentations at two ACC/AAAE Airport Planning, Design and Construction Symposiums; two NWAAAE Annual Conferences, and an APWA Conference.

Key Relevant Experience Includes:

- **Fallon Municipal Airport AWOS A-V and Runway 3-21** | Fallon, NV | Electrical Engineer
- **Silver Springs Airport New PAPIs, REILs, and Rotating Beacon** | Silver Springs, NV | Electrical Engineer/Designer
- **Battle Mountain Airport Apron Reconstruction (Phase 1)** | Lander County, NV | Electrical Engineer
- **Reno Stead Airport Taxiways C and A2 Reconstruction, Taxiway Upgrades, and Runway 14/23 Reconstruction and Extension** | Reno, NV | Electrical Engineer
- **Gooding Municipal Airport New AWOS** | Gooding, ID | Electrical Engineer

MS. DONOGHUE'S HIGHLIGHTS

Years of Experience: *21*

Education:

BS, Geology, California State University, San Bernardino
AS, Physical Science, Chaffey College

Registration(s)/Certification(s):

- *Certificate, Paralegal, 2006, University of California University Extension, Riverside*

Christine Jacobs-Donoghue | Environmental Planning

Ms. Donoghue has over 20 years of professional experience in environmental impact analysis/permitting, natural resources, project management and public involvement. She has authored and managed the preparation of environmental documents to satisfy CEQA, NEPA, Clean Water Act, and other federal, state, and local requirements. She typically serves as project manager and lead editor for the applicable CEQA/NEPA document, and as an environmental task leader for multi-disciplinary projects led by other disciplines. Her project experience is diverse involving public and private projects in the fields of: aviation, infrastructure, transportation, land use, parks/recreation, commercial and residential development, industrial/solid waste, port of entry facilities, schools, defense, energy and other municipal projects.

Key Relevant Experience Includes:

- **March Air Reserve Base Veterans Industrial Park EA** | Riverside, CA | Project Manager
- **Santa Maria Airport FedEx EA** | Santa Maria, CA | Project Manager
- **SNA Wickland Jetfuel Pipeine and Tank Farm EA** | Orange County, CA | NEPA Task Manager
- **South San Francisco Bay Shoreline Study Draft EIS/EIR/Feasibility Report**| Santa Clara County, CA | Environmental Planner
- **Upper Santa Ana River Wash Plan EIS/EIR** | San Bernardino, CA | Project Manager

Section 4:
Relevant Experience/References

Michael Baker
INTERNATIONAL

SECTION 4: RELEVANT EXPERIENCE / REFERENCES

SNA Perimeter Road Improvements | Orange County, CA

Michael Baker assisted SNA in the rehabilitation and reconstruction of the Perimeter Service Road near runways 19R and 19L. The perimeter service road design included the reconstruction of approximately 4,000 LF of a 24--foot-wide asphalt concrete bi-directional roadway, extending from Fire Station 33 (west airfield) to the terminal apron (east airfield). Key to design development was providing continued access through the work site, while maintaining security, access control, and monitoring. Significant coordination was required to maintain fuel truck delivery access through the work zone by allowing adequate maneuverability for truck off-loading and truck turn-around.

Image 20: *SNA's bi-direction perimeter road near runways 19R and 19L.*

PROJECT HIGHLIGHTS

Project Duration: *4/2008 to 12/2010*
Contract Value: *$1.3 million*
Reference: *Steve Chaky, Project Manager, John Wayne Airport, 949.252.5275, steve.chaky@ocair.com*

Phase One evaluated, by use of a feasibility study, construction of a new parallel perimeter service road system along the western property limit between the fuel farm and the northwest gate at Airport Loop Road. The parallel roadway system allows fuel truck delivery to operate outside the secure area of the airfield and separate other service vehicle traffic from fueling operations. This required moving the AOA fencing between the proposed roadway systems and moving the SIDA access gate to maintain security to the portion of roadway located within the secured AOA. The study also evaluated the construction of a new block wall with chain-link fence at the property line along with a new underground drainage system to replace the existing edge drain channel. The feasibility study reviewed FAA safety criteria and critical navigation area limits, operational control by the tower, 14 CFR Part 77 Airspace clearances, and coordination with the local FAA Department of Airports. Flight studies and testing of the navigation equipment were reviewed to determine possible equipment interference and separation limitations.

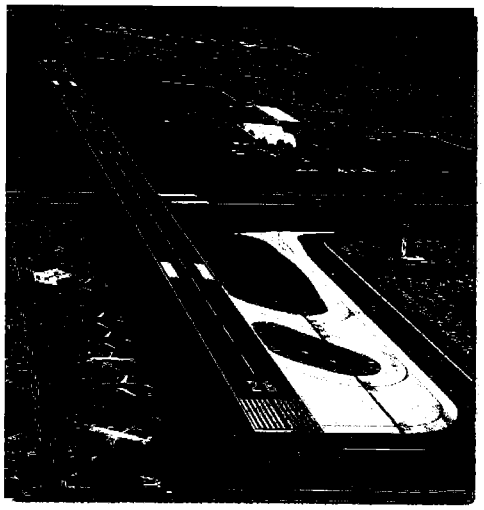


Image 21: *Aerial of BUR taxiway, runways, and aprons.*

Phase Two design included preparation of the final PS&E documents for the entire 4,000 LF Service Road including the new parallel roadway, if determined to be feasible, based on the results of the Phase One study. Additional design items included: replacing the asphalt pavement along the shoulder of the terminal apron with Portland cement concrete (PCC) near the terminus of the service road, adding PCC edge gutter with tie-in inlets to the existing cross culverts, and reviewing possible pavement repair methods that maintain active use of the service road system during its construction.

BUR Rehabilitation of Taxiway Throats and Aprons, Aircraft Ramp, Runway Guard Lights, Treatment BMP, and Construction Services | Burbank, CA

Michael Baker provided engineering services for the rehabilitation of BUR's commercial taxiway throats and aircraft apron. Michael Baker's

PROJECT HIGHLIGHTS

Project Duration: *4/2009 to 8/2011*
Contract Value: *$1.3 million*
Reference: *Bob Anderson, Director of Engineering and Planning, Hollywood Burbank Airport, 818.565.1305, banderson@bur.org*

work included pavement, grading, drainage, and water quality improvements design and surveying. The terminal and apron had been designed decades prior and FAA safety areas and flight operations setbacks were far from ideal. The project required complex construction phasing and airline coordination; 14 gates, baggage handling, fueling, and other operational activities had to be maintained during construction.

Michael Baker also provided civil engineering and survey services for the design of runway guard lights at BUR. The unique approach of boring out the light cans and jacking conduit between each of the light receptacles allowed continuous use of the taxiway systems during construction. This project was also fast-tracked and completed in one month.

PKB Runway 3-21 Rehabilitation | Wheeling, WV

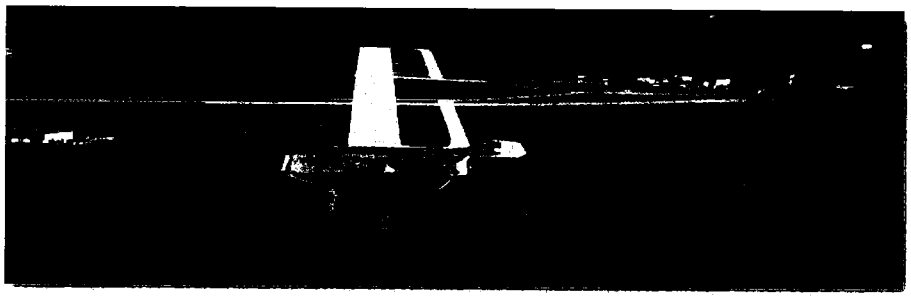


Image 22: *Aerial of PKB Runway 3-21*

PROJECT HIGHLIGHTS

Project Duration: *5/2007 to 1/2010*
Contract Value: *$74,468*
Reference: *Greg Stewart, Administrator, Ohio County Commission, 304.234.3628, ohcountystewart@aol.com*

Michael Baker prepared final design plans, assembled bid packages provided bid phase services, performed construction administration and inspection, and prepared project closeout documentation for the rehabilitation of Runway 3-21 at PKB. The project was performed under Michael Baker's comprehensive engineering services agreement with the Ohio County Commission. Rehabilitation involved milling and applying overlay for the entire runway length (5,000 feet) and width (150 feet) and re-grooving and re-marking the pavement. Since longitudinal and transverse grade deficiencies had been addressed during the rehabilitation of the runway in 2000 and there was no existing grade, structural, or geometric deficiencies, project tasks were limited to resurfacing of the facility.

Michael Baker developed construction plans for project layout and phasing, paving, and pavement marking, and prepared bid documents, which included contracts and general, special, and technical provisions. The 2000 Runway 3-21 rehabilitation plans were utilized as the basis for development of the construction plans. Services during the bid phase included coordination of the pre-bid meeting, tabulation of the bids, and recommendation of a contractor for award of the construction contract.

Michael Baker provided full-time, on-site observation during construction. Construction phase tasks also included review of material submittals and certifications, analysis of bituminous pavement samples in the contractor's laboratory, and preparation of inspection reports and construction change orders. Following construction, Michael Baker prepared record plans and updated the Airport Layout Plan. Project closeout tasks entailed preparation of the grant closeout package for submittal to the FAA and other required documentation.

Image 23: Taxiway and runway overview at CLE's North Airfield.

CLE North Airfield Improvements | Cleveland, OH

PROJECT HIGHLIGHTS

Project Duration: *10/2015 to Ongoing*
Contract Value: *$3.5 million*
Reference: *Michael Ibos, PE, Project Manager, City of Cleveland Department of Port Control, 216.898.5228, mibos@clevelandairport.com*

Michael Baker is providing project management and coordination; preliminary and final design; PS&E; mobile LiDAR, site investigations, and surveys; resident engineering; and QA testing over multiple task order agreements for reconstructing portions of the North Airfield bound by Taxiway J to the east, Runway 10-28 to the north, Taxiway V to the west, and Taxiway N to the south. The project requires fast-tracked design to meet FAA funding requirements for the first phase. Michael Baker is preparing a preliminary design report that includes an inventory of existing conditions, design criteria, geotechnical investigation results, survey data, and other pertinent information to CLE and FAA standards. Subsurface exploration consists of pavement cores, borings, sampling, and laboratory testing. Terrestrial mobile Light Detection and Ranging (LiDAR) and conventional survey methods are being used to prepare base mapping including all visible site features and subsurface utilities. Conventional survey methods are being used to determine existing conditions of storm, sanitary sewer manholes, and to verify and validate elevations, size, and flow directions to establish drainage requirements. Additionally, Michael Baker is developing schematics for proposed electrical, signage, and load calculations; identifying design parameters including design aircraft, tenant requirements, traffic forecasts, and fleet mix; preparing sketches and preliminary layouts to support detailed design, costs, and funding; and providing a list of necessary permits.

APV On-Call Services | Apple Valley, CA

Michael Baker provided boundary and topographic surveys, civil engineering, electrical engineering, geotechnical investigations, and construction support services at the APV GA airport in Apple Valley. Michael Baker prepared FAA PS&E for construction of two new, run-up areas; installation of approximately 20,000 linear feet of perimeter security fencing; secure access entries, relocation of taxiway lighting, an all-weather access roadway into the airport, and taxiway markings at the GA airport.

Image 24: APV's runway with new markings and roadway rehabilitation.

PROJECT HIGHLIGHTS

Project Duration: *2/2005 to 12/2006*
Contract Value: *$134,000*
Reference: *Bob Marlin, San Bernardino County, 909.387.5383, bmarlin@ae.sbcounty.gov*

Image 25: Aerials of the ATL airport.

PROJECT HIGHLIGHTS

Project Duration: *6/2003 to Ongoing*
Contract Value: *$16 million*
Reference: *Kathryn Master, PE, PMP, Director Airside/Landside/Cargo, Planning & Development, ATL, 404.382.1263, Kathryn.masters@atl.com*

ATL On-Call Architecture and Engineering Services for Airside Improvements | Atlanta, GA

Since 2003, Michael Baker, as part of the AIS Joint-Venture Team, has provided multidiscipline, on-call engineering services to ATL. Michael Baker acts as an extension of the ATL's staff, providing the depth of resources and experience of the entire company when called upon. Michael Baker delivers a full range of services including architecture, civil, structural, and electrical. Knowledge of ATL's current and historical conditions enables the firm to coordinate effectively with the Airport Authority. Michael Baker has provided day-to-day engineering services, ranging from minor structural inspections to the design of two, fast-track runway replacements. This includes Runway 8R/26L and 8L/26R. Runway 8R/26L was demolished and reconstructed in 59.5 days. Due to the successful nature of that project, the following Runway 8L/26R project was awarded to the firm as well. The total runway closure was 29 days. These projects required significant project planning, cost and schedule control, and overall stakeholder coordination.

Relevant Task Orders Include:

- Aviation Boulevard Reconstruction for MHJIT
- Airport Wayfinding Signage Master Plan
- Improvements for A380 Operations
- Taxiway Repair/Replacement, Phases 1 & 3
- Runways 8R/26L, 8L/26R, and 9L/27R Pavement Replacement
- TW Vend Around Taxiway
- Pavement Management Program 2014 & 2017
- Airfield Marking Replacement Project
- Airfield Safety Area Improvements

BWI & MTN Comprehensive Design and Planning Services | Baltimore, MD

Michael Baker is providing architectural and engineering services to Maryland Aviation Administration's (MAA's) Office of Engineering and Construction via our ninth consecutive Comprehensive Design Services contract awarded by MAA. Michael Baker has been serving in this role to MAA for nearly 25 years.

Relevant Task Orders Include:

- Midfield Cargo Apron Improvements

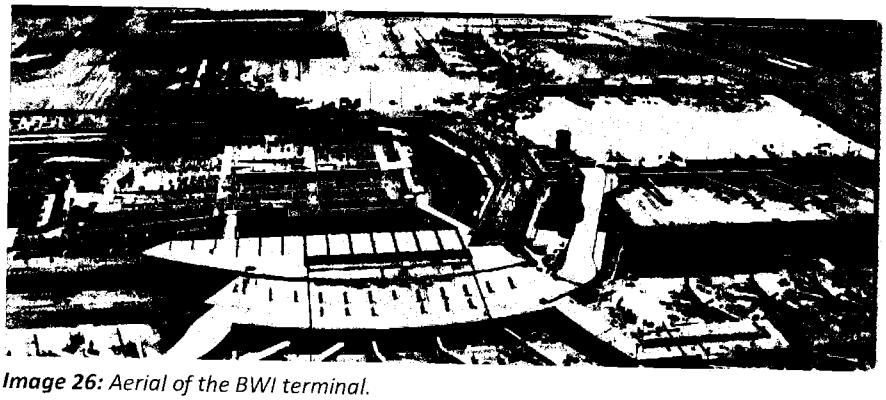


Image 26: Aerial of the BWI terminal.

PROJECT HIGHLIGHTS

Project Duration: *10/2014 to Ongoing*
Contract Value: *$7 million*
Reference: *Alex Ollerman, PE, Deputy Director of Engineering, BWI, 410.859.7090, follerman1@bwiairport.com*

- Concourse B Apron Pavement Reconstruction
- Concourse DY RON Apron and Taxiway Reconstruction
- B737-800 Modifications at Concourse A and B
- BWI PMIG Gas Station Environmental & Facility Condition Assessment
- BWI Program Management Services for Concourse A – 5 Gate Extension, Airline Maintenance Hangar Facility, & Terminal AB BHS
- MTN Building 499 Parking Lot Rehabilitation
- BWI Hourly/Daily Garages Automated Parking Guidance System Replacement
- Pier B Glycol Diversion Vault Access Door Repairs
- CRCF & BMF Building Improvements
- Code Compliance Renovations to Cargo Building 112
- MTN Fire Suppression Building Fuel Piping & Containment
- Terminal AB Pedestrian Exit Lane Upgrades
- MTN Wash Rack Cross Connection Repairs
- Runway Blisters

Image 27: *PIT runway on-site pavement rehabilitation.*

PROJECT HIGHLIGHTS

Project Duration: *1/1998 to Ongoing*
Contract Value: *T&M (contract value)*
Reference: *Tom Woodrow, Allegheny County Airport Authority, Vice President Engineering, 412.472.3667, twoodrow@Flypittsburgh.com*

PIT and AGC Airports Multidiscipline, On-Call Engineering Services | Pittsburgh, PA

Since 1989, Michael Baker has provided multidiscipline, on-call engineering services to PIT and AGC and acted as an extension of Allegheny County Airport Authority's (ACAA's) staff. Michael Baker continues to deliver a full range of services including: architecture, civil, structural, mechanical, electrical, plumbing, fire protection, and environmental services.

Relevant Task Orders Include:

- Pavement Management Program
- Runway 28L Vault Relocation
- Airport Primary Security Screening Point Expansion
- Runway 10L-28R Conceptual Cargo Development
- Wastewater System Study
- New Primary Electric Service at AGC
- Runway 10C Extension Design
- Fifth Runway Planning
- Runway 10L-28R Safety Area Improvements
- Runway 14-32 Centerline & TDZ Lights
- Terminal HVAC Upgrades
- Commuter Apron Lighting Survey
- Temporary Taxiway Study to Hangar 1
- PIT Fuel Farm O and M Building Evaluation
- Gas Well R/W Tree Inventory
- Replacement of Primary Feeds for Electrical Field Vaults
- Obstruction Surveys at PIT & AGC
- Aircraft Rescue Firefighting Facility (ARFF) Evaluation
- Mitigated Stream & Wetland Monitoring
- De-icing Pads C&D Evaluation

ZER On-Call Aviation Engineering Consulting Services | Pottsville, PA

Michael Baker is providing engineering consulting services for the development of the airport's CIP for 2015-2019 and has provided design services for the following tasks:

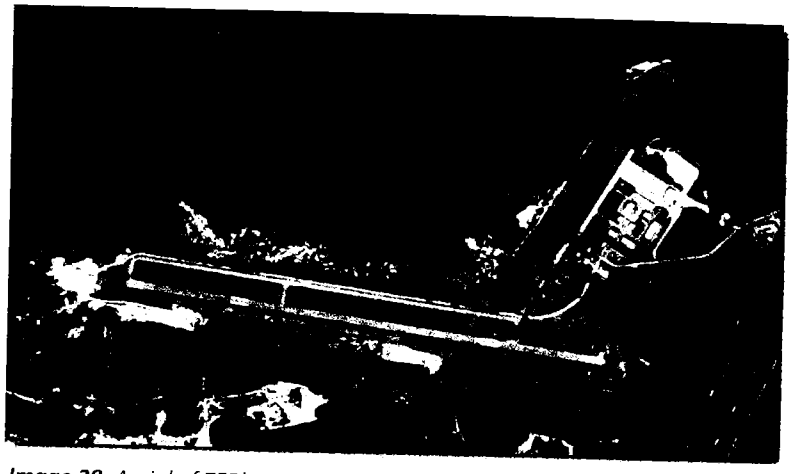


Image 28: Aerial of ZER's runway and terminal.

PROJECT HIGHLIGHTS

Project Duration: *5/2016 to Ongoing*
Contract Value: *$697,750*
Reference: *Bill Willard, Airport Manager, Schuylkill County Airport Authority, 631.324.4141, schairport@yahoo.com*

- **Runway Extension Design and EA:** Michael Baker is providing concurrent engineering and environmental planning services for the Runway 11-29 Extension Project from its current length of 5,100 feet to 5,500 feet. Michael Baker staff were involved with obtaining alternative funding through a relatively unknown resource - multimodal transportation fund, as the project was deemed non-eligible for FAA funding. In order to expedite the project, Michael Baker's staff worked closely with Pennsylvania's Department of Transportation's (PennDOT) Bureau of Aviation to complete the NEPA portion of the project as a Form C (Short Form) EA and to prepare the Form A concurrently with the design. Other services included environmental field studies (including USFWS/Section 7 Consultation), technical analyses, detailed engineering/design services, and extensive agency/stakeholder coordination. Grant funding for the project will expire on June 30, 2019; therefore, environmental review/preliminary design, final design, and construction of the project is anticipated to be completed prior to the expiration of grant funding, and the NEPA process is expected to be completed in under one year.
- **Perimeter Fence Design:** Michael Baker installed a perimeter/security/wildlife deterrent fence at ZER. Michael Baker provided preliminary design services, safety, phasing, electrical, and site plans. Michael Baker also prepared engineers estimate and specifications and assisted with bidding and federal grant applications.

Image 29: GNG's New AWOS III P/T.

PROJECT HIGHLIGHTS

Project Duration: *5/2017 to 7/2017*
Contract Value: *$241,000*
Reference: *Larry Bybee, Public Works Director, City of Gooding, 208.934.5669, lbybee@goodingidaho.org*

Gooding Municipal Airport (GNG) New AWOS IIII P/T | Gooding, ID

Dinter provided electrical design and construction support services to design a new AWOS III P/T with associated electrical equipment. Dinter's work included investigating the site and existing electrical vault, power supply, etc.; providing calculations for loads, voltage drop, wire sizing, etc.; and designing power equipment, obstruction light, cable, conduit, pull-box, and circuit routing and logic including grounding and counterpoise and vault work for the new AWOS.

Sunnyside Municipal Airport (1S5) AWOS Installation | Sunnyside, WA

Dinter provided electrical design and construction support services to specify the AWOS equipment, the power service to the equipment, and connection and inter-connection of the communications systems for monitoring the AWOS equipment.

Image 30: 1S5 construction area.

PROJECT HIGHLIGHTS

Project Duration: *2/2013 to 12/2014*
Contract Value: *$160,000*
Reference: *Shane Fisher, Public Works & Community Development Director, 509.837.5399, sfisher@sunnyside-wa.gov*

San Francisco International Airport (SFO) On-Call Geotechnical Services | San Francisco County, CA

ENGEO is providing as-needed geotechnical engineering services during planning, design, and construction of CIP at SFO. Services include: data review and analysis of geotechnical reports; consultation with architects, building and structural designers, San Francisco International Airport and San Francisco Department of Public Works planners' and designers'; performance of foundation engineering analysis; review of existing and proposed underground structures; preparation of reports, recommendations, and cost estimates; performance of recommended further studies; preparation of specifications for earthwork, shoring and tie-back installation, pile installation; and expertise in the analysis and evaluation of special problems pertaining to the design and construction of foundations. During construction, ENGEO provided testing and observation and geotechnical inspections. Select projects include:

Image 31: SFO rendering of new facilities layout.

PROJECT HIGHLIGHTS

Project Duration: *2010 to 2015*
Contract Value: *$1 million*
Reference: *Stan Palatnikov, City and County of San Francisco Airport Commission, 650.821.7735, stan.palat@flysfo.com*

- Air Train Station at the Rental Car Center
- Airfield Operations Facility
- New Data Center
- Solar Power Inverter
- Runway 28L and 28R
- New Administration Campus
- Plot 23 Reuse
- Plot 6 United Cargo Area Underground Utility Installation
- Consolidated Administration Campus