9712-99

TASK ORDER NUMBER 9

This Task Order No. 9 is an amendment to and made a part of the Consulting Agreement for General Engineering Services Related to the Rehabilitation and Reconstruction of the General Aviation Apron, dated June 8, 2021, by and between the Gainesville-Alachua County Regional Airport Authority (Owner) and Michael Baker International, Inc. (Engineer). Task Order No. 9 includes this scope of services and the attached cost proposal (Exhibit A). The Scope of Services for this Task Order No. 9 is as follows:

A. SCOPE OF SERVICES

I Project Description

The Gainesville Regional Airport (GNV) intends to rehabilitate and partially reconstruct the existing General Aviation aprons and taxilanes on the northern side of the airfield. The approximate limits of the Project are shown on the attached Figure 1 along with the various elements.

II Services by Engineer

1. Basic Services

Engineering services, as described in this Specific Scope of Services, include the following phases and tasks:

- Data Collection and Programming
- 30% Design Documents
- 60% Design Documents
- 90% Design Documents
- Final Design Documents
- Drainage Improvements
- Apron Expansion Area Design
- T-Hangar Apron Design
- Permitting
- Bid Phase
- Coordination with Taxiway A & E Extension, Modification, and Rehabilitation Project.

Deliverables will include:

1. Topographic Survey
    - Pre-collection Mobile LiDAR data collection plan to be provided to Gainesville Regional Airport to develop logistics and schedule.
    - AutoCAD Drawing in DWG format containing 3D planimetric features and contours in FAA AC 150/5300-18B compliant layering schema – no attribution will be performed. The scope of work does not include uploading of information into the FAA AGIS website.
    - Digital Terrain Model (5' gridded surface) in LandXML format with integrated breaklines.
    - Copies of all field notes, photographs, GPS log sheets and other field materials.
2. Pavement Data Collection
    - 3 sets of downward facing pavement images (range, intensity, 3D)

- Forward, right, and left facing ROW imagery

3. Ground Penetrating Radar (GPR) Data Collection
    - Graphs showing the HMA thickness along the testline
    - A set of arial plans based on satellite imagery showing the HMA thickness and areas of concern
    - A report discussing the findings of the GPR testing and pavement evaluation results. The report will also provide core and DCP data (if further investigation is needed based on the GPR testing results)
    - GIS Layers showing the HMA thickness
4. Non-Destructive Testing (NDT)
    - DO and D60 ISM maps
5. Geotechnical Investigation
    - Geotechnical Investigation Report
6. Drainage System Investigation
    - Video if camera investigation of Drainage System and Analysis
7. Programming Report to include the following:
    - Graphics of recommended rehabilitation and reconstruction pavement sections
    - Conceptual Construction Phasing Plan
    - Order of Magnitude Opinion of Probable Construction Costs
    - Overall Project Construction Package Limits
8. 30% Design Documents
    - Three (3) copies of half size plans
    - Three (3) copies of the 30% Design Report with Opinion of Probable Construction Cost.
    - PDF files of the Documents
    - Quality Control Certification
9. 60% Design Documents
    - Three (3) copies of half size plans
    - Three (3) copies of the 60% Design Report with Opinion of Probable Construction Cost.
    - Three (3) copies of the 60% technical specifications
    - PDF files of the Documents
    - Quality Control Certification
10. 90% Design Documents
    - Three (3) copies of half size plans for each of the bid packages.
    - Three (3) copies of the 90% Design Report
    - Opinion of Probable Construction Cost for each of the bid packages.
    - Construction Safety and Phasing Plan (CSPP) for each of the bid packages.
    - Three (3) copies of the 90% Project Manual for each of the bid packages.
    - PDF files of the Documents
    - Quality Control Certification
11. Final Design Documents
    - Three (3) copies of half size plans for each of the bid packages.
    - Three (3) copies of the Final Design Report
    - Opinion of Probable Construction Cost for each of the bid packages.
    - Construction Safety and Phasing Plan for each of the bid packages.
    - Three (3) copies of the Final Project Manual for each of the bid packages.
    - PDF files of the Documents
    - Quality Control Certification
12. Permitting

- Permit Applications
- Permit Approval Letters

13. Bidding
    - Electronic Bid Documents to Plan Rooms
    - Pre-Bid Agenda
    - Bid Tabulation, Evaluation, and Recommendation for Award

Meetings will include:

1. Project and Data Kickoff Meeting
    - 3 Baker Staff (Principal, PM, & Project Engineer)
    - 1 Baker Staff via Video Conference (Survey Manager)
2. Programming Document Review Meeting
    - 3 Michael Baker Staff (Principal, PM, and Project Engineer)
    - API (Senior Engineer via WebEx)
3. 30% Design Document Review Meeting Document Review Meeting (In-Person)
    - 3 Michael Baker Staff (Principal, PM, and Project Engineer)
4. 60% Design Document Review Meeting (In-Person)
    - 3 Michael Baker Staff (Principal, PM, and Project Engineer)
5. 90% Design Document Review Meeting (In- Person)
    - 3 Michael Baker Staff (Principal, PM, and Project Engineer)
6. Meetings with permitting agencies as outlined in the Scope of Services – Exhibit A. No Separate Meeting with GNV
7. Pre-Bid Meeting (In-Person)
    - 1 Michael Baker Staff (PM)
8. Bid Opening (In-Person)
    - 1 Michael Baker Staff (PM)
9. Coordinate the design of the Project elements and construction phasing with the Owner's consultant for the Taxiway A and E project, AECOM at the following project milestones:
    - Completion of Data Collection and Programming
    - 30 % Design Completion
    - 60% Design Completion
    - 90% Design Completion
    - Final Design Completion

Work Description

The work includes the design and bidding of the Rehabilitation and Partial Reconstruction of the General Aviation Apron. The elements of the Project include following:

- ✈ Rehabilitation of the existing asphalt apron and taxilanes
- ✈ Full depth reconstruction of areas determined to be insufficient for design aircraft loads
- ✈ Portland Cement Concrete (PCC) Landing Pads for Helicopters
- ✈ Strengthening of pavement in specific areas to accommodate larger aircraft
- ✈ Expansion of apron areas to the south
- ✈ Rehabilitation and/or reconstruction of existing drainage system
- ✈ Evaluation of fuel resistant pavement options
- ✈ Evaluation of apron parking, tie-down locations, and aircraft movement

III GACRAA RESPONSIBILITIES

1. The GNV will prepare and submit any FAA Grant Pre-Application(s), Application(s) and Close-out documentation.
2. The GNV will provide access to the site and all information pertinent to this Project, including access to drawings and documents on existing conditions with the Project limits.
3. GNV will pay all fees associated with agency permit applications and processing.
4. The GNV will provide access to pertinent information regarding airport property, boundary, easement, right-of-way, obstruction survey, and other information necessary for the design and permitting of the Project.
5. The GNV will provide all criteria, standards and design requirements which the GNV will require to be included in the drawings and specifications.

IV DESIGNATION OF STAFF

Michael Baker International, Inc. hereby designates the following staff to this project. Any changes to staff that may be required due to staff loss or unforeseen circumstances shall occur only after consultation with and approval from GACRAA staff.

Project Principal - Brian Russell, P.E.
Project Manager - Tom Schilling, P.E.

B. TIME OF PERFORMANCE

Phase	Estimated Start Date	# of days to complete	Estimated End Date
Data Collection	08/2/21	75	10/16/21
Programming	10/16/21	60	12/15/21
30% Construction Documents	12/15/21	45	01/29/22
60% Construction Documents	01/29/22	45	03/15/22
90% Construction Documents	03/15/22	45	04/29/22
Final Construction Documents	04/29/22	14	05/13/22
Bid Phase	05/13/22	30	06/12/22
Construction Phase	TBD	300	

C. PAYMENT

Total Lump Sum amount of $747,466.22 as described in Exhibit A.
Total NTE amount of $78,850.00 as described in Exhibit A.

D. EFFECTIVE DATE
This Task Order No. 09 is effective as of _____.

E. SPECIAL TERMS & CONDITIONS:

Exclusions:

- Environmental Survey and Assessment
- Permitting associated with wetlands or any other mitigation
- Grant Services
- Resident Project Representative/Full-time or more frequent project inspections
- Construction Phase Services
- Quality Assurance and/or Special Inspections Testing

F. ACCEPTANCE
By signature, the parties hereto accept the provision of this Task Order No. 09.

ENGINEER:
MICHAEL BAKER INTERNATIONAL, INC.

By: _____
Brian Russell, Vice President

Date: 7/28/21

OWNER:
GAINESVILLE-ALACHUA COUNTY REGIONAL AIRPORT AUTHORITY

By: _____
Chief Executive Officer

Date: 8/4/21

Federal Aviation Authority:

Hilary Maull, P.E.

By: _____

Date: _____

EXHIBIT "A"

SCOPE OF SERVICES
FOR
GENERAL AVIATION APRON REHABILITATION AND PARTIAL RECONSRUCTION
AT
GAINESVILLE REGIONAL AIRPORT

This is an exhibit made a part of the **AGREEMENT** between the **Owner (GNV)** and the **Michael Baker International (Michael Baker)** for professional consulting services for the **GENERAL AVIATION APRON REHABILITATION AND PARTIAL RECONSTRUCTION** (hereinafter referred to as the **PROJECT**) at the Gainesville Regional Airport. The **CONSULTANT** shall perform the following Basic and Special professional services under this **AGREEMENT**.

Scope:

The Gainesville-Alachua County Regional Airport Authority (OWNER) intends to rehabilitate and partially reconstruct the existing General Aviation aprons and taxilanes on the northern side of the airfield. The approximate limits of the Project are shown on the attached Figure 1 along with the various elements.

The aprons and taxilanes within the project limits have been repaved at various times since 2001. Since portions of the aprons and taxilanes were constructed and overlaid at various points in the Airport's history, there is significant variation in the composition and strength of the pavement sections. In addition, the Project area is known to have poor subgrade soils that are poorly drained that result in a seasonal-high water table only a few feet below the pavement surface. Due to the insufficient pavement sections, the Owner has instituted operational restrictions for heavier aircraft in coordination with the Fixed-Base Operator (FBO).

The Owner desires to rehabilitate and partially reconstruct portions of the Apron in order to have a more consistent pavement section that is operationally functional. The Owner has indicated that the PROJECT is being funded with FAA and FDOT grants. The Owner would like for Michael Baker to design the entire project under this contract, but the construction will be performed under multiple contracts and funding years.

The elements of the Project include following:

- Rehabilitation of the existing asphalt apron and taxilanes
- Full depth reconstruction of areas determined to be insufficient for design aircraft loads
- Portland Cement Concrete (PCC) Landing Pads for Helicopter
- Strengthening of pavement in specific areas to accommodate larger aircraft
- Expansion of apron areas to the south
- Rehabilitation and/or reconstruction of existing drainage system
- Evaluation of fuel resistant pavement options
- Evaluation of apron parking, tie-down locations, and aircraft movement

Professional Services, as described in this Specific Scope of Services, include the following phases:

A. Data Collection and Programming
    a. Topographic Survey and Mobile LiDAR
    b. Ground Penetrating Radar
    c. Non-Destructive Pavement Strength Testing
    d. Geotechnical Investigation
    e. Programming
B. Design, Plan Production, and Specifications
    a. Construction Safety and Phasing Plan
    b. Pavement Design
    c. Grading Design
    d. Pavement Markings
    e. Project Manual
    f. Engineer's Report
    g. Drainage Improvements – Potentially includes pipe rehabilitation, replacements, new structures, pipe, and treatment areas
    h. Apron Expansion - Includes paving, grading, drainage, markings, signage, and electrical design.
    i. T-Hangar Apron – Includes the T-Hangar Apron in the northeast corner of the project
C. Permitting
D. Bid Phase Services
E. Coordination with Taxiway A & E Extension, Modification, and Rehabilitation

A. Data Collection and Programming

The following tasks are to be completed in this phase (see Exhibit B for man-hour and cost breakdown):

Topographic Survey – Mobile LiDAR

Project mapping at GNV will be developed using Conventional Survey and Mobile LiDAR technology to produce CAD deliverables according to the FAA AC 150/5300-18B, *General Guidance and Specifications for Submission of Aeronautical Surveys to NGS: Field Data Collection and Geographic information System (GIS) Standards.*

Michael Baker will reconnoiter and recover readily available National Geodetic Survey (NGS) control monumentation and local control points. Following recovery of control monuments, consultant will validate monumentation by performing Real-time Kinematic (RTK) GPS observations between control points and any static GPS observations and/or leveling as is necessary to densify control.

In support of Mobile LiDAR activities, Michael Baker's subconsultant, EDA Consultants, Inc. (EDA), will perform supplemental traditional surveying to collect LiDAR identifiable control

points and random validation check points. Furthermore, traditional surveying will be utilized to capture topographic information in the grass and any areas obscured or not visible by LiDAR via traditional surveying methods.

The initial mapping produced will be engineering mapping using the layer scheme of FAA AC 150/5300-18B and blocks from our standard library. The mapping that will be provided under this contract does not include safety critical data, NAVAIDs, or obstructions. This mapping will not be attributed, will not be translated to GIS, and it will not be submitted to the FAA AGIS web site.

The mapping included in this Scope of Work will include all above ground, visible features within the delineated project area, with the exception of those listed above, that are listed in Chapter 5 of FAA AC 150/5300-18B.

Following field operations, Michael Baker will prepare complete planimetric drawings to include: topographic feature extraction, digital terrain modeling (DTM) and contour generation (in addition to 3D breaklines) according to said FAA AC 150/5300-18B – Chapter 5 for engineering drawings.

The resultant planimetric feature extraction will be delivered in AutoCAD DWG format. The DTM will be delivered in LandXML format and will include extracted breaklines.All Mobile LiDAR and field surveying and mapping will horizontally reference the North American Datum of 1983 (NAD83-2011), Florida North Zone, and vertically reference the North American Vertical Datum of 1988 (NAVD88), referencing local airport PACS and SACS. The project does not include establishment of any additional temporary or permanent Geodetic Control.

Data collection will be performed with our Network Survey Vehicle (NSV), which has the following advanced equipment components:

- **High Definition (HD) Digital Imaging System** – Five (5) high definition digital cameras (1920 X 1080) with ROW imaging system (front left, front middle, front right, rear left, rear right), capable of capturing frames every 26' (configurable). Images can be calibrated for additional roadway asset extraction such as signs, sidewalks manholes, curbs, inlets, guiderails, and shoulder width.
- **High Speed Profiler System** – A high speed inertial profiler meeting ASTM E950 Class 1 profiler specifications for ride quality and IRI measurement. Our profiling system is NCAT Class 1 certified in accordance with AASHTO R-56, passing the rigorous certification program that requires profile data to be collected, processed, and delivered with a high level of accuracy and repeatability in accordance with ASTM E950.
- **Inertial Measurement Unit** – A GNSS spatial positioning system that supports GPS and GLOSNASS with DGPS capability with post-processing accuracy of 1'.

Data collection will be performed on apron and taxilanes shown in Figure 1. Taxiways and runways will not be inventoried and are not included in this scope of services.

While it is ideal that the apron and taxilanes would be free and clear of planes and other equipment, we expect that this will not be case. Our NSV will carefully maneuver around

obstacles as necessary, while maintaining a safe distance from potential obstructions. It is expected that data collection can be performed in one (1) or two (2) days.

Captured field data will be saved to an encrypted external hard drive and shipped to our secure Data Center.

Pavement Data Deliverables

- Setup and configuration of a project database
- Storage of raw and process data on Michael Baker's secured server
- Transfer and delivery of data on external hard drive

Ground Penetrating Radar (GPR) Data Collection

Michael Baker also proposes to perform GPR testing to evaluate the apron pavement. The GPR testing is a cost-effective method to obtain continuous pavement thickness (up to 2.5' depth) at normal speed at 2" intervals. GPR is also capable of detecting shallow voids below the bound layers of the pavement.

There are two types of GPR antennas that can be used for data collection, air-coupled antennas, and ground-coupled antennas. The air-coupled antennas do not contact the pavement's surface and can be operated at 60 mph speed. The ground-coupled antennas are, however, dragged on the pavement's surface. Thus, the data collection speed is limited to 15 mph. The advantage of a ground-coupled antenna is that it can penetrate deeper (up to 8').

Michael Baker has extensive experience with GPR testing using both types of antennas. Our GPR equipment is the state-of-the-art GSSI SIR-30 system. We propose to collect the GPR data using a pair of air-coupled, 2 GHz noise reduction (NR) antennas. The GPR data is typically collected along "testlines" that are parallel to each other. Full coverage of the pavement area can be obtained by collecting the data along multiple testlines. We propose to collect the data along testlines that are 6' apart.

Once the GPR data is collected, Michael Baker will process the data at specific locations to obtain the hot mix asphalt (HMA) thickness throughout the apron. The GPR data will also be reviewed for the presence of possible voids below the pavement. Michael Baker will provide the thickness data in the form of graphs showing the variation of the pavement thickness along each testline as well as the average thicknesses on the CAD plans of the project area. The air coupled GPR testing is an effective tool to screen large pavement areas and identify areas of concern.

For example, the areas identified to have a thin pavement or possible voids below the pavement will be further investigated using pavement coring and Dynamic Cone Penetrometer (DCP) testing to verify the GPR results and investigate the issues.

Ground-coupled antennas can also be used to detect possible sinkholes. It can also be used to measure the approximate depth of the water table at the time of GPR testing. However, we do not propose to perform ground-coupled GPR testing unless it is needed based on the air-coupled GPR testing results.

Non-Destructive Testing (NDT)

Michael Baker's Subconsulant, All About Pavement, Inc. (API) will develop an NDT test plan for all pavements that are included in the project scope of work. The field work will consist of testing with one of API's Falling Weight Deflectometers (FWD) at the same time as Michael Baker's Data Collection Vehicle collects data at GNV. Project-level NDT testing will be conducted at intervals of 50 to 100 ft, depending on the size of the pavement section as presented in the FDOT Pavement Management report for GNV. Three test drops will be conducted at each test location with the FWD. For each location, deflection data and GPS coordinates will be recorded with FWD computer.

API will process the NDT raw data and compute Impulse Stiffness Modulus (ISM) values using the DO (Deflection Under Load Plate) and D60 (Deflection 60 inches from Load Plate). The DO-based ISM results will identify relative changes in the overall structural pavement capacity throughout the apron and taxilane. In addition, D60-based ISM results will identify relative changes in the subgrade strength. Using GPS data, API will prepare DO and D60 ISM maps to assist in the final locations of borings and coring work that will be conducted by Michael Baker.

Geotechnical Investigation

Michael Baker and API will review the pavement data collected and the results of the NDT to develop a strategic plan for the Geotechnical Investigation to target specific areas where verification of pavement layer thicknesses is required.

Michael Baker's subconsultant, Cal-Tech Testing, Inc. (CTI) will perform the geotechnical investigation. CTI will perform ten (10) Standard Penetration Test borings to a depth of ten (10) feet. The borings will include soil description and water table depth. CTI will perform up to forty (40) pavement cores including base thickness at locations provided by Michael Baker. Pavement cores will be backfilled and patched. CTI will perform five (5) California Bearing Ration (CBR) Tests at location provided by Michael Baker. The CBR tests will be utilized in NDT data analysis and pavement section design.

Drainage System Investigation

The majority of the drainage pipes within the project limits date back to the original construction of the apron and associated taxilanes. The Owner has indicated that there are some locations where the pavement distress could indicate issues the drainage pipes. Michael Baker's subconsultant, Quality Plumbing of Gainesville (QPG), will be perform a video camera investigation of the drainage pipes within the project limits to look for failures of the pipes and joints leaks that could be impacting the pavement above. Michael Baker will review the results of the drainage pipe investigation with the Owner and discuss possible repairs or rehabilitation that should be included in the project scope.

Environmental/Soil Contamination Investigation

The design team will determine if the known soil contamination area will be impacted with this construction project. It is assumed for scoping purposes that the soil contamination area will not

be impacted. This scope item will provide exhibits to illustrate that the area will not be impacted. If the area is determined to be impacted, then additional environmental services will be added to the scope of work.

Programming

Michael Baker and its subconsultants will review of the data collected above and develop a graphic representing the existing pavement sections within the project limits. The graphic will be used as a basis for the development of the rehabilitation and partial reconstruction program. An additional graphic will be prepared that indicates the planned rehabilitation and partial rehabilitation for the apron within the Project limits.

Pavement Design

During this phase a more detailed analysis of the NDT data to determine the characteristics of the pavement layers and subgrade that will be used during construction. For layer thicknesses, API will use the results from the field and laboratory test results to develop design values for each layer's engineering properties that are required for the cross-section alternatives that are prepared as part of this phase.

Michael Baker three (3) Asphalt Concrete (AC) sections be identified during the concept design. Unless the fleet mix includes aircraft with operational weights greater than 100,000 lbs, the AC pavement sections will be developed using granular base materials, including both stabilized and in situ cut and select fill subgrades. The aircraft fleet mix and traffic operations sensitivity analysis should be conducted for each of the initial concept designs.

The sensitivity analyses for all sections and corresponding layer thicknesses will be determined using the latest version of the FAA's FAARFIELD computer program, currently 1.42 but release 2.0 is expected to be released this summer, identified in Advisory Circular 150/5320-6F/G "Airport Pavement Design and Evaluation".

For flexible pavement design, FAARFIELD uses a layered elastic theory to provide adequate layer thicknesses to protect from subgrade deformation and surface fatigue cracking, due to loading. Rutting is related to the maximum vertical strain at the top of the subgrade, while fatigue cracking is related to the maximum horizontal (tensile) strain at the bottom of all asphalt layers. Both requirements are considered to ensure there is an adequate pavement structural life for the proposed design.

Conceptual Construction Phasing Plan

Michael Baker will develop a Conceptual Construction Phasing Plan based on input from the Owner and Project Stakeholders. The Conceptual Phasing Plan will include both the Phasing Plan for the initial construction package and the limits of future construction packages.

Order of Magnitude Opinion of Probable Construction Cost

Michael Baker will prepare an Order of Magnitude Opinion of Probably Construction Costs for the initial construction package and future construction packages based on the Conceptual Construction Phasing Plan.

Meetings:

- Project and Data Collection Kick-off Meeting
  - 3 Baker Staff (Principal, PM, & Project Engineer)
  - 1 Baker Staff via Video Conference (Survey Manager)
- Programming Document Review Meeting
  - 3 Michael Baker Staff (Principal, PM, and Project Engineer)
  - API (Senior Engineer via WebEx)

Deliverables:

Topographic Survey

- Pre-collection Mobile LiDAR data collection plan to be provided to Gainesville Regional Airport to develop logistics and schedule.
- AutoCAD Drawing in DWG format containing 3D planimetric features and contours in FAA AC 150/5300-18B compliant layering schema – no attribution will be performed. The scope of work does not include uploading of information into the FAA AGIS website.
- Digital Terrain Model (5' gridded surface) in LandXML format with integrated breaklines.
- Copies of all field notes, photographs, GPS log sheets and other field materials.

Pavement Data Collection

- 3 sets of downward facing pavement images (range, intensity, 3D)
- Forward, right, and left facing ROW imagery

Ground Penetrating Radar (GPR) Data Collection

- Graphs showing the HMA thickness along the testline
- A set of aerial plans based on satellite imagery showing the HMA thickness and areas of concern
- A report discussing the findings of the GPR testing and pavement evaluation results. The report will also provide core and DCP data (if further investigation is needed based on the GPR testing results)
- GIS Layers showing the HMA thickness

Non-Destructive Testing (NDT)

- DO and D60 ISM maps

Geotechnical Investigation

- Geotechnical Investigation Report

Drainage System Investigation

- Video of camera investigation of Drainage System and Analysis

Programming

- ***Programming Report to include the following:***
  - Graphics of recommended rehabilitation and reconstruction pavement sections
  - Conceptual Construction Phasing Plan
  - Order of Magnitude Opinion of Probable Construction Costs
  - Overall Project Construction Package Limits

B. Design, Plan Production, and Specifications

Michael Baker will prepare Design Documents consisting of the following:

- ✈ Cover Sheet
- ✈ Project Layout
- ✈ General Notes
- ✈ Construction Safety and Phasing Plans
- ✈ Construction Safety and Phasing Details
- ✈ Existing Conditions Plan
- ✈ Milling and Demolition
- ✈ Pavement Geometry Plan
- ✈ Typical Sections and Paving Details
- ✈ Grading & Drainage Plans.
- ✈ Drainage Details
- ✈ Stormwater Pollution Prevention Plans and Details
- ✈ Pavement Marking Plan and Details
- ✈ Lighting and Signage Layout Plan (Apron Expansion Only)
- ✈ Airfield Lighting and Signage Details (Apron Expansion Only)

30% Design Documents

Michael Baker will prepare 30% Design Drawings for review by the Owner. In addition to the 30% Design Drawings, Michael Baker will provide overall project management and coordination with the Project Team. A preliminary project schedule, a 30% Design Report, an outline of the technical specifications, and a 30% Opinion of Probable Construction Cost will be provided. The documents listed shall be considered the 30% Design Documents. Michael Baker will perform Quality Control/Quality Assurance reviews in accordance with our internal corporate policies. We will attend a review meeting with the Owner to review the 30% Design Documents and provide meeting notes to the parties in attendance

Meetings:

- 30% Design Document Review Meeting Document Review Meeting (In-Person)
  - 3 Michael Baker Staff (Principal, PM, and Project Engineer)

Deliverables:

Michael Baker will provide the following to GNV as part of the 30% Design Documents submittal

- Three (3) copies of half size plans
- Three (3) copies of the 30% Design Report with Opinion of Probable Construction Cost.
- PDF files of the Documents

- Quality Control Certification

60% Design Documents

Michael Baker will prepare 60% Design Drawings for review by the Owner. In addition to the 60% Design Drawings, Michael Baker will provide overall project management and coordination with the Project Team. The 60% Design Documents will include an updated project schedule, the 60% Design Report, 60% technical specifications, and a 60% Opinion of Probable Construction Cost will be provided. The documents listed shall be considered the 60% Design Documents. Michael Baker will perform Quality Control/Quality Assurance reviews in accordance with our internal corporate policies. We will attend a review meeting with the Owner to review the 60% Design Documents and provide meeting notes to the parties in attendance

Meetings:

- 60% Design Document Review Meeting Document Review Meeting (In-Person)
    - 3 Michael Baker Staff (Principal, PM, and Project Engineer)

Deliverables:

Michael Baker will provide the following to GNV as part of the 60% Design Documents submittal

- Three (3) copies of half size plans
- Three (3) copies of the 60% Design Report with Opinion of Probable Construction Cost.
- Three (3) copies of the 60% technical specifications
- PDF files of the Documents
- Quality Control Certification

90% Design Documents

Michael Baker will prepare 90% Design Drawings for review by the Owner. In addition to the 90% Design Drawings, Michael Baker will provide overall project management and coordination with the Project Team. The 90% Design Documents will include an updated project schedule, the 90% Design Report, 90% Project Manual, and a 90% Opinion of Probable Construction Cost will be provided. The documents listed shall be considered the 90% Design Documents. Michael Baker will perform Quality Control/Quality Assurance reviews in accordance with our internal corporate policies. We will attend a review meeting with the Owner to review the 90% Design Documents and provide meeting notes to the parties in attendance

At the 90% document level, the determination of construction areas will be outlined in expectation of multiple bid packages. It is assumed that the plans will be divided into 3 separate bid packages. Estimates will be developed for each bid package.

Meetings:

- 90% Design Document Review Meeting Document Review Meeting (In-Person)
    - 3 Michael Baker Staff (Principal, PM, and Project Engineer)

Deliverables:

Michael Baker will provide the following to GNV as part of the 90% Design Documents submittal

- Three (3) copies of half size plans for each of the bid packages.

- Three (3) copies of the 90% Design Report
- Opinion of Probable Construction Cost for each of the bid packages.
- Construction Safety and Phasing Plan (CSPP) for each of the bid packages.
- Three (3) copies of the 90% Project Manual for each of the bid packages.
- PDF files of the Documents
- Quality Control Certification

Final Design Documents

Michael Baker will prepare Final Design Drawings for review by the Owner. In addition to the Final Design Drawings, Michael Baker will provide overall project management and coordination with the Project Team. The Final Design Documents will include an updated project schedule, the Final Design Report, Final Project Manual, and a Final Opinion of Probable Construction Cost will be provided. The documents listed shall be considered the Final Design Documents. Michael Baker will perform Quality Control/Quality Assurance reviews in accordance with our internal corporate policies.

Deliverables:

Michael Baker will provide the following to GNV as part of the Final Design Documents submittal

- Three (3) copies of half size plans for each of the bid packages.
- Three (3) copies of the Final Design Report
- Opinion of Probable Construction Cost for each of the bid packages.
- Construction Safety and Phasing Plan for each of the bid packages.
- Three (3) copies of the Final Project Manual for each of the bid packages.
- PDF files of the Documents
- Quality Control Certification

C. Permitting

Michael Baker will obtain the following permits: St. Johns River Water Management District (SJRWMD) Environmental Resource Permit (ERP), City of Gainesville (COG) Site Development Permit & Building Permit, FAA OE/AAA Determination, and FAA Categorical Exclusion. Michael Baker will procure a local subconsultant to assist with specific COG and GRU design elements as well as prepare permit documentation and management of permits.

The following tasks will be performed under this phase in order to obtain a COG site development permit:

- ✈ Prepare Pre-application submittal package for COG;
- ✈ Pre-Application meeting with COG;
- ✈ Incorporate COG pre-application comments;
- ✈ Prepare permit application package for COG;
- ✈ Attend permit application meeting;
- ✈ Address comments from permit application meeting;
- ✈ Prepare 10 additional Signed and Sealed plans for permitting;
- ✈ Prepare construction cost estimates for COG impact fee; and
- ✈ Coordination with COG on permit delivery.

The following tasks will be performed under this phase in order to obtain a SJRWMD ERP:

- ✈ Pre-Application meeting with SJRWMD;
- ✈ Incorporate SJRWMD pre-application comments;
- ✈ Prepare permit application package for SJRWMD;
- ✈ Address SJRWMD RAI comments from permit review;
- ✈ Coordination with SJRWMD on permit delivery.

The following tasks will be performed under this phase to obtain a FAA OE/AAA Determination:

- ✈ Prepare FAA 7460 form;
- ✈ Prepare exhibits for Part 77 clearance;
- ✈ Prepare and submit Construction Safety and Phasing Plan (CSPP) to the FAA
- ✈ Submit documents through the FAA OE/AAA website.

The following tasks will be performed under this phase in order to obtain a FAA Categorical Exclusion:

- ✈ Prepare narrative and Cat Ex form;
- ✈ Submit form to GNV for submission to the FAA.

Meetings:

- Meetings with permitting agencies outlined above. No separate meetings with GNV.

Deliverables:

- Permit Applications
- Permit Approval Letters

D. Bidding

Michael Baker will assist the Owner with obtaining bids for the construction of the project bidding. It is our understanding that the initial construction package that will be bid is the rehabilitation and partial reconstruction of the main GA Apron in the vicinity of the FBO. Michael Baker will perform the following services as part of this phase:

- ✈ The Project will be bid soliciting for a single general prime contractor.
- ✈ Prepare the Advertisement for Bids. GNV will arrange for and pay costs associated with advertising the Project for bids.
- ✈ Provide electronic Bid Documents to Plan Rooms if requested by GNV.
- ✈ Distribute Bidding Documents to Bidders and maintain list of document holders.
- ✈ Attend the Pre-Bid Conference. Prepare agenda and prepare meeting minutes for distribution to all attendees. Sub-Consultants will not attend the Pre-Bid Conference.
- ✈ Respond to Bidder's inquiries and issue Addenda as required to clarify, and/or interpret, the Bidding Documents.
- ✈ Provide advice, limited to the appropriate scope of professional expertise, as to the acceptability of contractors, subcontractors, suppliers, and other entities.
- ✈ Attend the Bid Opening and prepare Bid Tabulation. Evaluation of bids received will be limited to the three low and responsive proposals. Prepare a recommendation of award.

- ✈ Detailed value engineering of Project is specifically excluded from the scope of this Project.

Meetings:

- Pre-Bid Meeting (In-Person)
  - 1 Michael Baker Staff (PM)
- Bid Opening (In-Person)
  - 1 Michael Baker Staff (PM)

Deliverables:

- Electronic Bid Documents to Plan Rooms
- Pre-Bid Agenda
- Bid Tabulation, Evaluation, and Recommendation for Award

E. <u>Coordination with Taxiway A & E Extension, Modification, and Rehabilitation Project</u>

The Owner has indicated that the desire for Michael Baker to coordinate the design of project elements and construction phasing for the Project with the Owner's consultant for the Taxiway A and E project, AECOM. Michael Baker will have meetings with AECOM at the following project milestones to coordinate design elements and construction phasing.

Completion of Data Collection and Programming.
30% Design Completion
60% Design Completion
90% Design Completion
Final Design Completion

Schedule:

The following schedule assumes the project moves forward in a linear process and each phase begins only upon approval of the prior phase and NTP with the next phase.

Phase	Estimated Start Date	# of days to complete	Estimated End Date
Data Collection	6/1/21	75	8/15/21
Programming	8/15/21	60	10/14/21
30% Construction Documents	10/14/21	45	11/28/21
60% Construction Documents	11/28/21	60	1/27/22
90% Construction Documents	1/27/22	60	3/28/22
Final Construction Documents	3/28/22	21	4/18/22
Bid Phase	4/25/22	30	5/25/22
Construction Phase	TBD	300	

Design Criteria, Design Methodology, and Specifications:

Michael will prepare the design drawings and specifications in accordance with the following technical design criteria and methodology as provided by the following agencies and appropriate publications:

FAA Advisory Circular 150/5300-13A, "Airport Design,"

FAA Advisory Circular 150/5340-1M, "Standards for Airport Pavement Markings,"

FAA Advisory Circular 150/5320-6F, "Airport Pavement Design & Evaluation,"

FAA Advisory Circular 150/5370-2G, "Operational Safety on Airport During Construction"

FAA Advisory Circular 150/5340-18G, "Standards for Airport Sign Systems"

FAA Advisory Circular 150/53700-10H, "Standards for Specifying Construction of Airports"

FAA Advisory Circular 150/5320-5D, "Airport Drainage Design"

St. Johns River Water Management Criteria

City of Gainesville Development Review Criteria

Assumptions:

Prepare FAA Program Justification supporting documentation, 7460 Airspace Analysis documentation and Project design and construction data used by the GNV in support of and close out of an FAA Grant. The GNV will prepare and submit any FAA Grant Pre-Application(s), Application(s) and Close-out documentation.

The GNV will provide access to the site and all information pertinent to this Project, including access to drawings and documents on existing conditions with the Project limits.

GNV will pay all fees associated with agency permit applications and processing.

The GNV will provide all criteria, standards and design requirements which the GNV will require to be included in the drawings and specifications.

If the scope of work in the initial construction package should change Michael Baker and the Owner reserve the right to revisit the fees associated with Bid Phase Services.

Exclusions:

The following services are specifically excluded from the scope but may be performed under future additional services task orders.

- Environmental Survey and Assessment
- Permitting associated with wetlands or any other mitigation
- Grant Services
- Resident Project Representative/Full-time or more frequent project inspections
- Construction Phase Services
- Quality Assurance and/or Special Inspections Testing

END OF EXHIBIT "A"

EXHIBIT B

MANHOUR AND FEE ESTIMATE

GNV - General Aviation Apron Rehabilitation and Partial Reconstruction

FEE SUMMARY

PROFESSIONAL SERVICES:

	Total	DBE
Phase A - Data Collection and Programming	$219,993.92	$24,750.00
Phase B1 - 30% Design Documents	$97,048.90	$0.00
Phase B2 - 60% Design Documents	$129,218.90	$0.00
Phase B3 - 90% Design Documents	$113,148.90	$0.00
Phase B4 - Final Construction Documents	$31,118.90	$0.00
Phase B5 - Drainage Improvements (Not-to-Exceed)	$78,850.00	$0.00
Phase B6 - Apron Expansion	$45,530.00	$10,000.00
Phase B7 - T-Hangar Apron	$31,270.00	$0.00
Phase C - Permitting	$45,248.90	$30,000.00
Phase D - Bid Phase	$13,888.90	$0.00
Phase E - Coordination with Taxiway A & E Project	$20,998.90	$0.00
Professional Services Total :	**$826,316.22**	**$64,750.00**

DBE % 7.8%

EXHIBIT "B"

MANHOUR AND FEE ESTIMATE

GNV - General Aviation Apron Rehabilitation and Partial Reconstruction

Phase A - Data Collection and Programming

Item/Task Description	Principal	Senior Project Manager	Senior Engineer	Project Engineer	Senior Designer	CADD Technician	Admin Assistant	Totals
General:								
Project Management	2	8	4				8	22
Project Coordination with GNV	2	6					2	10
Coordination of Data Collection		8	8	8			2	26
Prepare for and Attend Kickoff Meeting	6	6					2	14
Kickoff Meeting Notes		2					2	4
Quality Control	2	4	4				2	12
Programming								
As-Built Research			4	8		8		20
Survey Verification			4	4		8		16
Review Pavement Data Collection		2	2	4				8
Review GPR Data		2	2	4				8
Review NDT Data		2	2	4				8
Review Geotechnical Investigation		2	2	4				8
Pavement Design & Analysis		4	8	20				32
Prepare Conceptual Construction Phasing Plan		4	4	12	30	30		80
Revisions Based on Comments		2	4	4	8	40		58
Quantity Calculations		2	4	8	20	20		54
Opinion of Probable Construction Cost		2	4	8				14
Establish Approximate Bid Package Limits	2	4	4					10
Prepare Programming Document	2	4	4	12	24	30	10	86
Prepare for Review Meeting	2	4				16	2	24
Programming Document Review Meeting with Stakeholders	6	6					2	14
Revisions to Programing Document		4	4	4	8	8	4	32
Total:	24	78	68	104	90	160	36	560
Hourly Rate:	$250.00	$230.00	$175.00	$140.00	$150.00	$85.00	$80.00	
Total Labor:	$6,000.00	$17,940.00	$11,900.00	$14,560.00	$13,500.00	$13,600.00	$2,880.00	**$80,380.00**

Data Collection Services	
Data Collection (LiDAR)	$18,210.00
Mobile LiDAR/Topographic Survey	$31,630.56
GPR Collection	$9,540.28
GPR Processing and Report	$24,107.29
Total Data Collection Costs	**$83,488.12**

SUBCONSULTANTS:	
Survey - EDA Consultants (DBE)	$14,000.00
Pavement Evaluation and Design - API	$30,498.00
Geotechnical - CTI (DBE)	$10,750.00
Total Subconsultant Costs	**$55,248.00**

DIRECT COSTS	
Reproduction (80 11x17 Color)	$80.00
Reproduction (400 Letter Color)	$400.00
Mileage (4 Trips @ 170 Miles @ $0.585 per mile)	$397.80
Total Direct Costs	**$877.80**

Total Data Collection and Programming	**$219,993.92**

EXHIBIT "B"

MANHOUR AND FEE ESTIMATE

GNV - General Aviation Apron Rehabilitation and Partial Reconstruction

Phase B1 - 30% Design Documents

Item/Task Description	Project Director	Senior Project Manager	Senior Engineer	Project Engineer	Senior Designer	CADD Technician	Admin Assistant	Totals
General:								
Project Management		8					2	10
Project Coordination with GNV	2	8	4				2	16
Subconsultant Coordination		8	8	4				20
Quality Control	8	4					2	14
30% Review Meeting	6	6						12
30% Review Meeting Notes		2					2	4
30% Design:								
Pavement Design		2	6	8				16
Apon Taxilane Horizonatal & Vertical Geometry		2	8	16	16			42
30% Plans:								
Cover Sheet				2	2	2		6
General Notes			2	2	2	2		8
Project Layout & Safety Plan		2	4	4	8	8		26
Construction Safety and Phasing Plan		2	4	8	8	16		38
Typical Pavement Sections		2	2	8	4	16		32
Existing Conditions (4 Sheets)		2	4	8	16	24		54
Milling and Demolition Plan (4 Sheets)		4	8	16	16	24		68
Pavement Geometry Plan (4 Sheets)		4	16	24	24	30		98
30% Documentation:								
Quantity Calculations			2	6	8	16		32
Opinion of Probable Construction Cost	2	4	4	4				14
Outline of Technical Specifications		2	4	8			4	18
Design Report		8	16	40			8	72
Project Schedule	2	4	4	4			2	16
QC Certification	2	2		8				12
Total:	22	76	96	170	104	138	22	628
Hourly Rate:	$250.00	$230.00	$175.00	$140.00	$150.00	$85.00	$80.00	
Total Labor:	$5,500.00	$17,480.00	$16,800.00	$23,800.00	$15,600.00	$11,730.00	$1,760.00	**$92,670.00**

SUBCONSULTANTS:	
Airfield Electrical - Ohmega (DBE)	$0.00
Pavement - API	$3,500.00
Total Subconsultant Costs	**$3,500.00**

DIRECT COSTS	
Reproduction (80 11x17 B&W)	$80.00
Reproduction (40 Full Size Sheets)	$200.00
Reproduction (400 Letter Color)	$400.00
Mileage (2 Trips @ 170 Miles @ $0.585 per mile)	$198.90
Total Direct Costs	**$878.90**

Total Phase B1 (Lump Sum):	**$97,048.90**

EXHIBIT "B"

MANHOUR AND FEE ESTIMATE

GNV - General Aviation Apron Rehabilitation and Partial Reconstruction

Phase B2 - 60% Design Documents

Item/Task Description	Project Director	Senior Project Manager	Senior Engineer	Project Engineer	Senior Designer	CADD Technician	Admin Assistant	Totals
General:								
Project Management	2	12					2	16
Project Coordination with GNV	2	8	8	4			2	24
Subconsultant Coordination		4	4	6				14
Incorporate 30% Review Comments		2	4	8	4	8	4	30
Quality Control	2	4	4				2	12
60% Review Meeting	6	6	6					18
60% Review Meeting Minutes		2					2	4
60% Design:								
Finalize Pavement Design			2	4				6
Taxilane Horizontal & Vertical Geometry		4	8	16	16			44
60% Plans:								
Cover Sheet			4	8	8			20
General Notes		2	4	16	8	8		38
Project Layout & Safety Plan		2						2
Construction Safety and Phasing Plans		4	8	16	16	24		68
Existing Conditions (4 Sheets)		2	4	8	8	8		30
Milling and Demolition Plan (4 Sheets)		4	8	16	16	24		68
Pavement Geometry Plan (4 Sheets)		4						4
Typical Pavement Sections		2	8	16	8	16		50
Grading Plan		4	12	20	24	40		100
Grading Details			2	4	4	16		26
Stormwater Pollution Prevention Plan & Details			2	4	6	16		28
Pavement Marking Plan and Details (4 Sheets)		2	2	8	4	8		24
60% Documentation:								
Quantity Calculations			2	4	8	16		30
Opinion of Probable Construction Cost		4	8	4			2	18
Design Report		8	16	24			8	56
Construction Safety and Phasing Plan		4	8	16	8	8	8	52
Technical Specifications	2	8	16	24			12	62
Project Schedule	2	4	4				2	12
QC Certification	2	2		8				12
Total:	18	98	144	234	138	192	44	868
Hourly Rate:	$250.00	$230.00	$175.00	$140.00	$150.00	$85.00	$80.00	
Total Direct Labor:	$4,500.00	$22,540.00	$25,200.00	$32,760.00	$20,700.00	$16,320.00	$3,520.00	**$125,540.00**

SUBCONSULTANTS:	
Pavement - API	$3,000.00
Total Subconsultant Costs	**$3,000.00**

DIRECT COSTS	
Reproduction (160 11x17 Color)	$160.00
Reproduction (60 Full Size Sheets)	$300.00
Reproduction (800 Letter Color)	$20.00
Mileage (2 Trips @ 170 Miles @ $0.585 per mile)	$198.90
Total Direct Costs	**$678.90**

Total Phase B2 (Lump Sum):	**$129,218.90**

EXHIBIT "B"

MANHOUR AND FEE ESTIMATE

GNV - General Aviation Apron Rehabilitation and Partial Reconstruction

Phase B3 - 90% Design Documents

Item/Task Description	Project Director	Senior Project Manager	Senior Engineer	Project Engineer	Senior Designer	CADD Technician	Admin Assistant	Totals
General:								
Project Management		8					2	10
Project Coordination with GNV		8						8
Subconsultant Coordination		4	4					8
Incorporate 60% Review Comments			2	8				10
Quality Control	2	4	4				2	12
90% Review Meeting		2	2					4
90% Review Meeting Minutes		2						2
90% Design:								
Finalize Taxilane Horizontal & Vertical Geometry			2	4	12			18
90% Plans:								
Cover Sheet			4	8	8			20
General Notes		2	4	16	8	8		38
Project Layout & Safety Plan		2						2
Construction Safety and Phasing Plans		4	8	16	16	24		68
Existing Conditions (4 Sheets)		2	4	8	8	8		30
Milling and Demolition Plan (4 Sheets)		4	8	16	16	24		68
Pavement Geometry Plan (4 Sheets)		4						4
Typical Pavement Sections		2	8	16	8	16		50
Grading Plan		4	12	20	24	40		100
Grading Details		2	4	8	4	16		34
Stormwater Pollution Prevention Plan & Details				4		8		12
Pavement Marking Plan and Details (4 Sheets)		2	2	4	4	8		20
90% Documentation:								
Quantity Calculations			2	4	6	12		24
Opinion of Probable Construction Cost		4	8	4			2	18
Design Report		8	16	24			8	56
Construction Safety and Phasing Plan		4	8	16	8	8	8	52
Project Manual	2	8	20	30			12	72
Project Schedule	2	4	4				2	12
QC Certification	2	2		8				12
Total:	8	86	126	214	122	172	36	764
Hourly Rate:	$250.00	$230.00	$175.00	$140.00	$150.00	$85.00	$80.00	
Total Direct Labor:	$2,000.00	$19,780.00	$22,050.00	$29,960.00	$18,300.00	$14,620.00	$2,880.00	**$109,590.00**

SUBCONSULTANTS:	
Pavement - API	$3,000.00
Total Subconsultant Costs	**$3,000.00**

DIRECT COSTS	
Reproduction (200 11x17 B&W)	$160.00
Reproduction (60 Full Size Sheets)	$120.00
Reproduction (100 letter Color)	$60.00
Reproduction (200 letter B&W)	$20.00
Mileage (2 Trips @ 170 Miles @ $0.585 per mile)	$198.90
Total Direct Costs	**$558.90**

Total Phase B3 (Lump Sum):	**$113,148.90**

EXHIBIT "B"

MANHOUR AND FEE ESTIMATE

GNV - General Aviation Apron Rehabilitation and Partial Reconstruction

Phase B4 - Final Construction Documents

Item/Task Description	Project Director	Senior Project Manager	Senior Engineer	Project Engineer	Senior Designer	CADD Technician	Admin Assistant	Totals
Project Management		4					2	6
Project Coordination with GNV		4	2				2	8
Subconsultant Coordination		4	2				2	8
Incorporate 90% Review Comments			2	4	4			10
Prepare Final Drawings		2	4	12	12	20		50
Prepare Final Project Manual		8	16	20			4	48
Prepare Final Engineer's Report		2	4	12	8	8	2	36
Prepare Final Quantities & Cost Estimate		2	4	8	4	12	2	32
Quality Control	2	4	2					8
Total:	2	30	36	56	28	40	14	206
Hourly Rate:	$250.00	$230.00	$175.00	$140.00	$150.00	$85.00	$80.00	
Total Direct Labor:	$500.00	$6,900.00	$6,300.00	$7,840.00	$4,200.00	$3,400.00	$1,120.00	**$30,260.00**

SUBCONSULTANTS:	
Airfield Electrical - Ohmega Group (DBE)	$0.00
Total Subconsultant Costs	**$0.00**

DIRECT COSTS	
Reproduction (200 11x17 Color)	$200.00
Reproduction (80 Full Size Sheets)	$400.00
Reproduction (800 letter Color)	$60.00
Mileage (2 Trips @ 170 Miles @ $0.585 per mile)	$198.90
Total Direct Costs	**$858.90**

Total Phase B4 (Lump Sum):	**$31,118.90**

EXHIBIT "B"

MANHOUR AND FEE ESTIMATE

GNV - General Aviation Apron Rehabilitation and Partial Reconstruction

Phase B5 - Drainage Improvements (Not-to-Exceed)

Item/Task Description	Project Director	Senior Project Manager	Senior Engineer	Project Engineer	Senior Designer	CADD Technician	Admin Assistant	Totals
General:								
Project Management & Coordination		8	8					16
30% Design:								
Drainage Calculations		2	16	24				42
30% Plans:								
30% Construction Plans		2	16	24	16	20		78
30% Documentation:								
Quantity Calculations				2		4		6
60% Design:								
Drainage Calculations		4	16	24				44
Drainage Pipe Rehabilitation		4	8	12				24
60% Plans:								
60% Construction Plans		2	16	24	16	20		78
60% Documentation:								
Quantity Calculations				2		4		6
90% Design:								
Finalize Drainage Calculations			4	8				12
Finalize Pipe Rehabilitation			4	8				
90% Plans:								
90% Construction Plans		4	8	8	12	16		48
90% Documentation:								
Quantity Calculations				2		4		6
Final								
Design			2	2				4
Construction Plans			2	2	2	4		10
Documentation					2	2		4
Total:	0	26	100	142	48	74	0	362
Hourly Rate:	$250.00	$230.00	$175.00	$140.00	$150.00	$85.00	$80.00	
Total Direct Labor:	$0.00	$5,980.00	$17,500.00	$19,880.00	$7,200.00	$6,290.00	$0.00	**$56,850.00**

SUBCONSULTANTS:	
Quality Plumbing -Drainage Systeme(80 hrs @ $275/hr)	$22,000.00
Total Subconsultant Costs	**$22,000.00**

DIRECT COSTS	
Total Direct Costs	**$0.00**

Total Phase B5 (Not-To-Exceed)	**$78,850.00**

EXHIBIT "B"

MANHOUR AND FEE ESTIMATE

GNV - General Aviation Apron Rehabilitation and Partial Reconstruction

Phase B6 - Apron Expansion

Item/Task Description	Project Director	Senior Project Manager	Senior Engineer	Project Engineer	Senior Designer	CADD Technician	Admin Assistant	Totals
General:								
Project Management & Coordination		4	4					8
30% Design:								
Pavement Design & Geometry			2	2				4
30% Plans:								
30% Construction Plans		6	12	16	12	24		70
30% Documentation:								
Quantity Calculations				2		2		4
60% Design:								
Pavement Design & Geometry			2	2				4
60% Plans:								
60% Construction Plans		4	12	16	12	24		68
60% Documentation:								
Quantity Calculations				2		2		4
90% Design:								
Pavement Design & Geometry				2	2	2		6
90% Plans:								
90% Construction Plans		2	8	12	10	20		52
90% Documentation:								
Quantity Calculations				2		2		4
Final								
Design		2	2	2				6
Construction Plans		2	2	4	8	12		28
Documentation					2	2		4
Total:	0	20	44	62	46	90	0	254
Hourly Rate:	$250.00	$230.00	$175.00	$140.00	$150.00	$85.00	$80.00	
Total Direct Labor:	$0.00	$4,600.00	$7,700.00	$8,680.00	$6,900.00	$7,650.00	$0.00	**$35,530.00**

SUBCONSULTANTS:	
Ohmega Group - Airfiled Electrical	$10,000.00
Total Subconsultant Costs	**$10,000.00**

DIRECT COSTS	
Total Direct Costs	**$0.00**

Total Phase B6 (Lump Sum):	**$45,530.00**

EXHIBIT "B"

MANHOUR AND FEE ESTIMATE

GNV - General Aviation Apron Rehabilitation and Partial Reconstruction

Phase B7 - T-Hangar Apron

Item/Task Description	Project Director	Senior Project Manager	Senior Engineer	Project Engineer	Senior Designer	CADD Technician	Admin Assistant	Totals
General:								
Project Management & Coordination		8	8				4	20
30% Design:								
Pavement Design & Geometry			2	2		4		8
30% Plans:								
30% Construction Plans		4	8	8	12	16		48
30% Documentation:								
Quantity Calculations				2		2		4
60% Design:								
Pavement Design & Geometry			2	2		4		8
60% Plans:								
60% Construction Plans		4	8	12	12	20		56
60% Documentation:								
Quantity Calculations				2		2		4
90% Design:								
Pavement Design & Geometry			2	2		4		8
90% Plans:								
90% Construction Plans		4	4	8	10	16		42
90% Documentation:								
Quantity Calculations				2		2		4
Final								
Design		2	2	2				6
Construction Plans			2	4	4	8		18
Documentation					2	2		4
Total:	0	22	38	46	40	80	4	210
Hourly Rate:	$250.00	$230.00	$175.00	$140.00	$150.00	$85.00	$80.00	
Total Direct Labor:	$0.00	$5,060.00	$6,650.00	$6,440.00	$6,000.00	$6,800.00	$320.00	**$31,270.00**

SUBCONSULTANTS:	
	$0.00
Total Subconsultant Costs	**$0.00**

DIRECT COSTS	
Total Direct Costs	**$0.00**

Total Phase B7 (Lump Sum):	**$31,270.00**

EXHIBIT "B"

MANHOUR AND FEE ESTIMATE

GNV - General Aviation Apron Rehabilitation and Partial Reconstruction

Phase C - Permitting

Item/Task Description	Project Director	Senior Project Manager	Senior Engineer	Project Engineer	Senior Designer	CADD Technician	Admin Assistant	Totals
General:								
Project Management		2						2
Project Coordination with GNV		4						4
Subconsultant Coordination		4	4	4				12
Permitting:								
SJRWMD Permitting								
Pre-Application Meeting		2	2	2				6
Permit Application Preparation			2	2				4
Permit Plan Set Production				2	2	4		8
RAI Response/Revision			2	2				4
City of Gainesville Permitting								
Informal Pre-Application Conference			2	2				4
Coordinate Application		2	4					6
Final Site Plan Application and Plans			2	2	2			6
Obstruction Analysis (OE/AAA)								
Airspace Study Checklist Preparation Assistance		2	4	8	8	16	2	40
Total:	0	16	22	24	12	20	2	96
Hourly Rate:	$250.00	$230.00	$175.00	$140.00	$150.00	$85.00	$80.00	
Total Direct Labor:	$0.00	$3,680.00	$3,850.00	$3,360.00	$1,800.00	$1,700.00	$160.00	**$14,550.00**

SUBCONSULTANTS:	
Permitting - EDA (Lump Sum)	$30,000.00
Total Subconsultant Costs	**$30,000.00**

DIRECT COSTS	
Reproduction (200 11x17 Color)	$200.00
Reproduction (60 Full Size Sheets)	$300.00
Mileage (2 Trips @ 170 Miles @ $0.585 per mile)	$198.90
Total Direct Costs	**$698.90**

Total Phase C (Lump Sum):	**$45,248.90**

EXHIBIT "B"

MANHOUR AND FEE ESTIMATE

GNV - General Aviation Apron Rehabilitation and Partial Reconstruction

Phase D - Bid Phase

Item/Task Description	Project Director	Senior Project Manager	Senior Engineer	Project Engineer	Senior Designer	CADD Technician	Admin Assistant	Totals
Assist with Bid Advertisement		2	2				2	6
Coordination with GNV		4					2	6
Distribute Bid Documents			4				12	16
Attend Pre-Bid		2	2					4
Answers to Bidders Questions		2	8	8			2	20
Prepare Addenda		4	8				6	18
Attend Bid Opening		2						2
Prepare and Review Bid Tab		2	4				8	14
Recommendation of Award		2	2				2	6
Total:	0	20	30	8	0	0	34	92
Hourly Rate:	$250.00	$230.00	$175.00	$140.00	$150.00	$85.00	$80.00	
Total Direct Labor:	$0.00	$4,600.00	$5,250.00	$1,120.00	$0.00	$0.00	$2,720.00	**$13,690.00**

SUBCONSULTANTS:

Total Subconsultant Costs	**$0.00**

DIRECT COSTS

Mileage (2 Trips @ 170 Miles @ $0.585 per mile)	$198.90
Total Direct Costs	**$198.90**

Total Phase D (Lump Sum):	**$13,888.90**

EXHIBIT "B"

MANHOUR AND FEE ESTIMATE

GNV - General Aviation Apron Rehabilitation and Partial Reconstruction

Phase E - Coordination with Taxiway A & E Project

Item/Task Description	Project Director	Senior Project Manager	Senior Engineer	Project Engineer	Senior Designer	CADD Technician	Admin Assistant	Totals
Data Collection and Programming	1	8	4	4			2	19
30% Design	1	8	4	4	4	8	2	31
60% Design	1	8	4	4	8	12	2	39
90% Design	1	8	4	4	8	6	2	33
Final Design		2	2	2	2		2	10
Total:	4	34	18	18	22	26	10	132
Hourly Rate:	$250.00	$230.00	$175.00	$140.00	$150.00	$85.00	$80.00	
Total Direct Labor:	$1,000.00	$7,820.00	$3,150.00	$2,520.00	$3,300.00	$2,210.00	$800.00	**$20,800.00**

SUBCONSULTANTS:

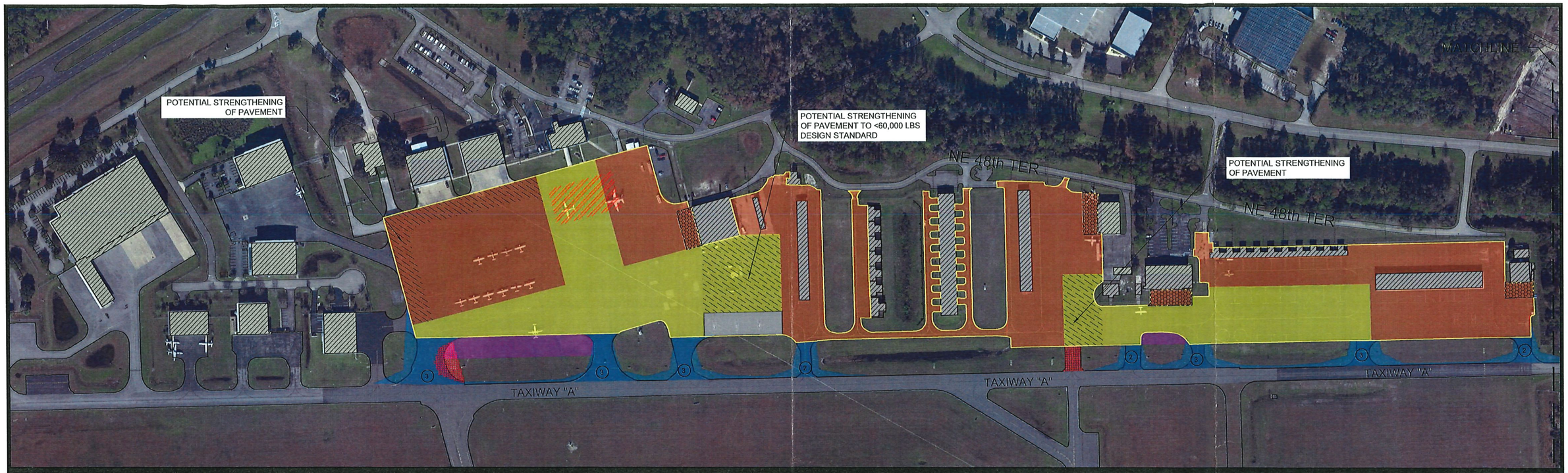
None

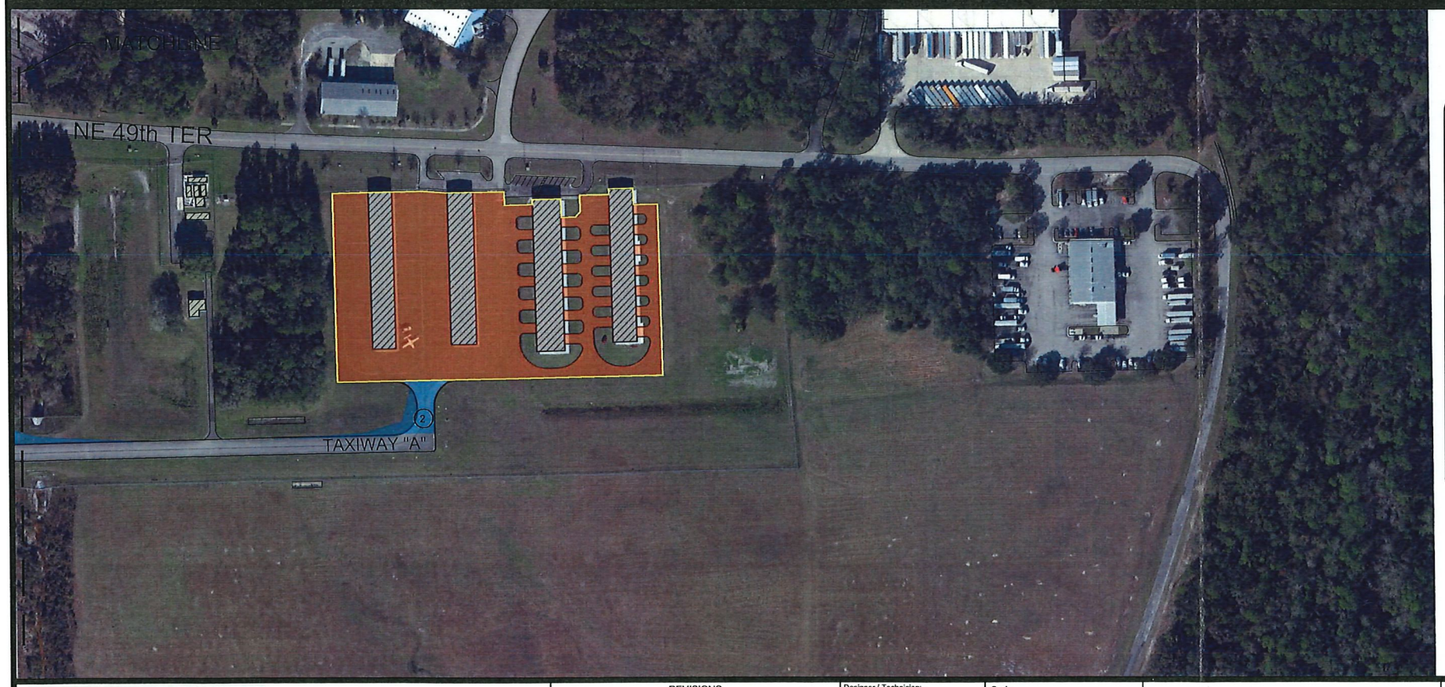
Total Subconsultant Costs	**$0.00**	**$0.00**

DIRECT COSTS

Mileage (2 Trips @ 170 @ $0.585 per mile)	$198.90
Total Direct Costs	**$198.90**

Total Phase E (Lump Sum):	**$20,998.90**





LEGEND

- MILL AND RESURFACE
- RECONSTRUCTION
- TAXIWAY CONNECTOR (TO BE COMPLETED AS PART OF TAXIWAY A & E PROJECT)
- NEW PCC PAVEMENT
- FUEL RESISTANT PAVEMENT
- POTENTIAL PAVEMENT STRENGTHENING
- APRON EXPANSION
- PAVEMENT DEMOLITION (TO BE COMPLETED AS PART OF TAXIWAY A & E PROJECT)
- 50 FEET FROM HANGAR-NON AIP ELIGIBLE
- (2) TDG-2 FILLET
- (3) TDG -3 FILLET

N W E S

600 300 150 0 150 300 600

SCALE: 1" =300'

Michael Baker INTERNATIONAL
12740 GRAN BAY PKWY. WEST SUITE 2110
JACKSONVILLE, FLORIDA 32258
PHONE: (904) 380-2500
CORPORATE LICENSE NUMBER 28861

GAINESVILLE REGIONAL AIRPORT

REVISIONS			
No.	Description	Date	By

Designer / Technician: TMC
Checked by: BGC
Approved by: TMS
Project Number: -

Seal:

GENERAL AVIATION APRON

REHABILITATION AND PARTIAL RECONSTRUCTION SCOPE OF WORK

Date: MAY 2021
Drawing Number: FIGURE 1

BY: CLARK.TOBIN X:\PROJECTS\0-AIRPORTS\GNV-GAINESVILLE REGIONAL AIRPORT\MARKETING\2020-PROPOSAL\GA APRON\X-GNV-GA APRON - SOW UPDATED EXHIBIT.DWG 5/18/2021 4:57 PM