



# Pinellas County

## Staff Report

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**File #:** 24-0835A, **Version:** 1

**Agenda Date:** 6/11/2024

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**Subject:**

Second Amendment to the agreement with AVCON, Inc. for the New Airco Taxiways - Professional Engineering Services.

**Recommended Action:**

Approval of the Second Amendment to the agreement with AVCON, Inc. for New Airco Taxiways - Professional Engineering Services.

- This contract provides for New Airco Taxiways - Professional Engineering Services.
- This Second Amendment increases the contract by \$495,240.25 and extends the term by six hundred and eighty-four consecutive calendar days. This increase provides sufficient funding to redesign a previously completed design of partial Parallel Taxiway D, relocation of a portion of the airport's perimeter road and perimeter fence, relocation of Taxiway G3, including construction of a new stormwater canal to outfall to Tampa Bay.
- This contract was awarded by the Board of County Commissioners on April 7, 2021, in the amount of \$1,516,305.00 for a term of eight hundred days. The First Amendment was approved by the Purchasing Director on November 17, 2023, for a time-only extension through February 15, 2025.
- Funding is available under Construct New Airco Taxiway D Project 000034A, included in the Capital Improvement Plan, funded by the Airport Revenue and Operating Fund, Florida Department of Transportation State Grant Funds, Federal Aviation Administration Federal Grant Funds, and Passenger Facility Charges.

Contract No. 21-0552-NC increase in the amount of \$495,240.25 for a revised not to exceed expenditure of \$2,011,545.25, effective through December 31, 2026; Authorize the Chairman to sign and the Clerk of the Circuit Court to attest.

**Strategic Plan:**

Foster Continual Economic Growth and Vitality

4.4 Invest in infrastructure to meet current and future needs.

4.5 Provide safe and effective transportation systems to support the efficient flow of motorists, commerce, and regional connectivity.

**Summary:**

This Second Amendment increases the contract by \$495,240.25 and extends the term by six hundred and eighty-four consecutive calendar days. This increase provides sufficient funding to redesign a previously completed design of partial Parallel Taxiway D, relocation of a portion of the airport's perimeter road and perimeter fence, relocation of Taxiway G3, including construction of a new stormwater canal to outfall to Tampa Bay.

**Background Information:**

This contract was awarded by the Board of County Commissioners on April 7, 2021, in the amount of \$1,516,305.00 for a term of eight hundred days. The First Amendment was approved by the Purchasing Director on November 17, 2023, for a time-only extension through February 15, 2025.

**Fiscal Impact:**

Original Award:	\$1,516,305.00
First Amendment:	\$ 0.00
Second Amendment	<u>\$ 495,240.25</u>
Revised Total Contract Amount	\$2,011,545.25

Funding is available under Construct New Airco Taxiway D Project 000034A, included in the Capital Improvement Plan, funded by the Airport Revenue and Operating Fund, Florida Department of Transportation state grant funds, Federal Aviation Administration federal grant funds, and Passenger Facility Charges.

**Staff Member Responsible:**

Tom Jewsbury, Director, Airport  
Merry Celeste, Division Director, Purchasing, Administrative Services  
Joe Lauro, Director, Administrative Services

**Partners:**

FDOT

**Attachments:**

Second Amendment

## SECOND AMENDMENT

This Amendment made and entered into this 11th day of June, 2024, by and between Pinellas County, a political subdivision of the State of Florida, hereinafter referred to as "County," and AVCON, Inc., Orlando, FL hereinafter referred to as "Contractor," (individually referred to as "Party", collectively "Parties").

### WITNESSETH:

WHEREAS, the County and the Contractor entered into an agreement on December 7, 2021, pursuant to Pinellas County Contract No. 21-0552-NC (hereinafter "Agreement") pursuant to which the Contractor agreed to provide New Airco Taxiways – Professional Engineering Services for County; and

WHEREAS, Section 25 of the Agreement permits modification by mutual written agreement of the parties; and

WHEREAS, the County and the Contractor now wish to modify the Agreement in order to provide for an increase to the total expenditure amount and to extend the contract at the same prices, terms, and conditions;

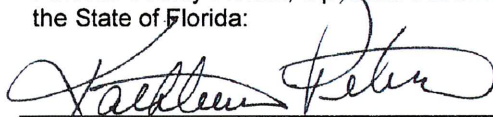
NOW THEREFORE, the Parties agree that the Agreement is amended as follows:

1. The term is hereby extended for an additional six hundred eighty-four (684) consecutive calendar days period until December 31, 2026.
2. The not-to-exceed total expenditure is revised to reflect an increase in the amount of \$495,240.25 for a revised not-to-exceed total expenditure of \$2,011,545.25. (Attachment A - Additional Scope and Attachment B - Cost Breakdown).
3. Except as changed or modified herein, all provisions and conditions of the original Agreement and any amendments thereto shall remain in full force and effect.

Each Party to this Amendment represents and warrants that: (i) it has the full right and authority and has obtained all necessary approvals to enter into this Amendment; (ii) each person executing this Amendment on behalf of the Party is authorized to do so; (iii) this Amendment constitutes a valid and legally binding obligation of the Party, enforceable in accordance with its terms.

IN WITNESS WHEREOF the Parties herein have executed this Second Amendment as of the day and year first written above.

Pinellas County Florida, a political subdivision of the State of Florida:

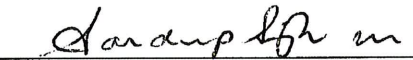
  
\_\_\_\_\_  
Signature

Kathleen Peters  
Printed Name

Chair  
Printed Title

June 11, 2024.  
Date

Contractor: **AVCON, INC.**

  
\_\_\_\_\_  
Signature

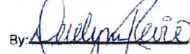
Sandeep Singh, P.E.  
Printed Name

President  
Printed Title

5/7/2024  
Date



ATTEST: KEN BURKE, CLERK

By: 

**APPROVED AS TO FORM**

By: Miles Belknap  
Office of the County Attorney

## Attachment A - Additional Scope



**AVCON, INC.**  
ENGINEERS & PLANNERS

4500 140<sup>th</sup> Avenue, Suite E105  
Clearwater, Florida 33762  
813.321.5588  
avconinc.com

April 19, 2024

Mr. Scott Yarley, P.E.  
Airport Engineer  
St. Pete-Clearwater International Airport  
14700 Terminal Boulevard, Suite 221  
Clearwater, FL 33762

**Reference: Proposed Scope of Services and Fee Proposal  
Professional Engineering Services  
Amendment to Design of New Airco Taxiways  
St. Pete-Clearwater International Airport  
Clearwater, Florida**

Pursuant to your request, AVCON, INC. is pleased to provide our scope and fee proposal for the design, bidding, and construction management services for design revisions for the above-referenced project at St. Pete-Clearwater International Airport. We have prepared the enclosed documentation to assist in your evaluation of the proposal.

AVCON, INC. will develop all the necessary documentation for the project. As listed in our attached Fee Summary, our proposed lump sum fee is \$495,240.25 inclusive of design phase services, Geotechnical Testing and Investigation, Land Surveying, Subsurface Utility Engineering (SUE), Environmental and Stormwater permitting support, and Bidding Phase services.

We have enclosed the following supporting documents:

- Attachment A, Scope of Services;
- Attachment B, Fees and Expenses
- Attachment C, Airco Taxiways Revised Program
- Attachment D, Subconsultants' Scope and Fee

AVCON INC. is ready to begin the project at your earliest convenience and we have initiated the development of subconsultant subcontracts in anticipation of the Notice to Proceed (NTP). We understand the airport is targeting having advertising the project for bids by the end of calendar year 2024.

We appreciate the opportunity to accomplish this assignment for you. If you have any questions regarding our proposal, scope, or fee, please feel free to call me at your earliest convenience.

Sincerely,  
**AVCON, INC.**

A handwritten signature in blue ink that reads "Michael Coppage".

Michael Coppage, P.E.  
Senior Project Manager

cc Sandeep Singh, P.E.  
President & Principal-In-Charge



**AMENDMENT TO SCOPE OF SERVICES  
PROFESSIONAL ENGINEERING SERVICES  
DESIGN OF AIRCO TAXIWAYS  
ST. PETERSBURG-CLEARWATER INTERNATIONAL AIRPORT  
CLEARWATER, FLORIDA**

**APRIL 19, 2024**

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## **I. PROJECT DESCRIPTION**

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The PROJECT can be generally described as the investigation/study, design, permitting, and bidding services for the New Airco Taxiways project, herein after referred to as the PROJECT. The project includes the redesign of previously-completed design of partial Parallel Taxiway D, relocation of a portion of the airport's perimeter road and perimeter fence, relocation of Taxiway G3, including construction of a new stormwater canal to outfall to Tampa Bay. The objective of the PROJECT is to provide the airfield access necessary to proceed with the development of the Airco parcel for aeronautical development at St. Pete-Clearwater International Airport, including conceptual layout of development for permitting purposes.

The alignment of Taxiways D and G3 as previously designed will be unchanged, and will remain nominally 50' wide with no paved shoulders. Taxiway D will intersect with Runway 18-36 directly opposite existing Taxiway A8, and will intersect with Runway 4-22 directly opposite relocated Taxiway G3.

With each of the taxiways listed above, the lighting, marking and signage shall also be provided. Drainage improvements will also be made throughout the limits of the PROJECT.

Please refer to attached ATTACHMENT C for the conceptual layout and the project limits.

### **I-A. Overview of Professional Services**

In general, professional services to be performed by AVCON, herein after referred to as the CONSULTANT, under this assignment include:

- Preliminary Design/Data Collection
- Coordination of Specialty Subconsultants:
  - Design Surveys and Topographic Mapping
  - Design Geotechnical Investigation
  - Local Drainage Design and Permitting
  - Wildlife and Wetland Permitting
- Revision to Project Access, Staging and Storage
- Development of Construction Safety and Phasing Plan (CSPP)
- Revision to Construction Plans
- Revision to Construction Technical Specifications
- Revision to Engineer's Opinion of Probable Construction Cost



- Revision to Engineer's Report
- Stormwater and Utility Permitting
- Assist the Airport with Coordination with the FAA and FDOT
- Bidding/Award Phase Services

## II. PROJECT SCOPE AND UNDERSTANDING

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### II-A. Project Initiation/Coordination

Coordinate and attend a PROJECT initiation/kick-off meeting with Airport staff and County permitting staff as deemed appropriate. The meeting shall review the PROJECT scope and schedule and establish the preliminary design goals and methods.

### II-B. Subconsultant Coordination

#### II-B01. Project Survey

Review available survey data and develop a written land survey scope of services. The land survey shall include all area with the PROJECT limits and shall tie to recently conducted adjacent PROJECT surveys performed by others. Specifically, the PROJECT surveys performed for adjacent projects shall be examined and both horizontal and vertical controls established to provide a uniform datum across projects. Any discrepancy shall be rectified or brought to the attention of the Airport. CONSULTANT shall coordinate and review with the survey subconsultant the topography, profile and cross-sectional survey of existing pavement and in-field areas, lighting fixtures, signs, drainage pipes, structures, markings etc. The survey data shall be provided to the Airport's Project Manager for his review. Upon receipt of the survey CONSULTANT shall perform an extensive field review of the project to ensure the survey requirements have been met.

#### II-B02. Subsurface Utility Engineering

In conjunction with review of available survey data, develop a written subsurface utility engineering scope of services. Subsurface utility engineering scope will include select areas within the PROJECT limits known to contain utilities owned by the County or other agencies. Coordinate horizontal and vertical control to be provided from land surveyor to SUE consultant. The scope shall include identification and layout of locations for soft-digs to verify vertical height (VVH) of utilities likely to be impacted by the PROJECT.

#### II-B03. Geotechnical Investigations

Review available geotechnical data and develop a written geotechnical scope of services. The scope shall include identification and layout of test locations and the required laboratory testing. All field work shall be cleared by Airport and FAA prior to actual borings being conducted. The written geotechnical report shall be provided to the Airport as an attachment to the Engineering Report for review.

CONSULTANT will coordinate the locations of the cores, bulk samples, and other test locations with Airport Operations and the Geotechnical Consultant. The engineer will review and photograph the samples as they are retrieved.



**II-B04. Drainage and Stormwater Permitting**

Coordinate specialist stormwater consultant activities and incorporate into design. The scope shall include the direct consultation with Pinellas County and SWFWMD permit review staff, input into design calculations, coordination of stormwater approach, and other necessary calculation and design support.

**II-B05. Environmental Permitting**

Coordinate field investigations related to subconsultant surveys for wildlife, wetlands, and surface waters. Coordinate inclusion of Environmental Narrative Report in SWFWMD and Pinellas County permit applications, as appropriate.

Coordinate wildlife attractant BMP recommendations into the design plans and specifications.

**II-C. Project Elements**

**II-C01. FAA Advisory Circulars and Regulations**

CONSULTANT will design all aspects of the project in accordance with FAA Advisory Circulars current at the time of contract execution. The table below includes minimum standards to be incorporated into the design.

<b>Governing Design and Regulatory Standards</b>	
<b>Standard</b>	<b>Description</b>
AC 150/5300-13B	Airport Design
AC 150/5320-6G	Airport Pavement Design and Evaluation
AC 150/5320-5D	Airport Drainage Design
AC 150/5340-1M	Standards for Airport Markings
AC 150/5340-18G	Standards for Airport Sign Systems
AC 150/5340-30J	Design and Installation Details for Airport Visual Aids
AC 150/5345-27E	Specification for Wind Cone Assemblies
AC 150/5370-2G	Operational Safety on Airports During Construction
AC 150/5370-10H	Standard Specifications for Construction of Airports
14 CFR Part 77	Safe, Efficient Use, and Preservation of the Navigable Airspace
14 CFR Part 139	Certification Of Airports
62-330 F.A.C.	Statewide Environmental Resource Permitting (SWERP)
FDOT	Statewide Airport Stormwater Best Management Practices Manual
Pinellas County	Pinellas County Stormwater Manual
SWFWMD	Applicant's Handbook Volume II





**II-C02. Airfield Geometry**

Horizontal geometry and grading will be designed in accordance with AC 150/5300-13B.

**II-C02a. Horizontal Geometry**

Taxiways are classified by Airplane Design Group (ADG) and Taxiway Design Group (TDG). ADG is a function of wingspan and tail height and controls width of Taxiway Safety Areas (TSA) and Taxiway Object Free Areas (TOFA), while TDG is a function of aircraft gear configuration including gear track and nose-to-main gear distance, which controls pavement width and fillet geometry.

The new Taxiway D was previously designed to ADG III, TDG 3 standards for pavement geometry purposes. No changes to the taxiway geometry will be made.

Taxiway Design Standards		
Taxiway	Airplane Design Group (ADG)	Taxiway Design Group (TDG)
Taxiway D	III	3
Taxiway G3	III	3

**II-C02b. Vertical Profile and Grading**

The future development plans of the Airco parcel require higher building pad elevations due to impacts from recently issued FEMA FIRM maps. Accordingly, the centerline elevation for Taxiway D has been kept as close to the centerline elevation of Runway 18-36 as possible. The grading of the taxiway is not anticipated to change from the prior design, and grading revisions are expected to be limited to grass/turf areas. Grading will be closely coordinated with the needs of the revised stormwater design and stormwater permitting for the PROJECT.

**Taxiway Longitudinal Grade**

- Maximum Grade 1.5%
- Maximum Grade Change 3%

**Taxiway Transverse Grade**

- Taxiway pavement cross slope 1.0% - 1.5%
- 5.0% grade for 10 ft of unpaved surface adjacent to paved surface
- 1.5% to 3.0% downward slope within Taxiway Safety Area (ADG III or V, as applicable)
- 4:1 maximum slope between edge of Taxiway Safety Area and edge of Taxiway Object Free Area (ADG III or V, as applicable)

**II-C02c. Conceptual Airside Development**

Utilizing prior studies as a starting point, CONSULTANT will develop a preliminary design of airside development for the purposes of incorporating the runoff from such developments into the revised stormwater design, taking into account the



limitations on development due to updated FEMA maps and the Limit of Moderate Wave Action (LIMWA) line.

### **II-C03. Pavement Design and Fleet Mix**

The pavement was previously designed in accordance with the FAA AC 150/5320-6G, Airport Pavement Design and Evaluation. The pavement section was designed for use by typical air carrier aircraft currently operating at PIE, in addition to general aviation aircraft ranging from small single engine aircraft to corporate jet aircraft.

The existing soils and subgrade will be examined thoroughly in locations where excavation for stormwater canals or ponds are to be constructed, with the anticipation of using spoils from such excavation as fill material beneath the new taxiway construction. CONSULTANT will analyze geotechnical exploration test results and soils and materials test data and revisit pavement design sections and construction methodologies, evaluate the existing topographical features and determine suitability of on-site materials for use as a foundation for the new pavement structure. If required, CONSULTANT will provide specifications for suitable offsite borrow materials if required.

The pavement section will be designed for use by typical air carrier aircraft currently operated at PIE, in addition to general aviation aircraft ranging from small single engine aircraft to corporate jet aircraft. Critical aircraft anticipated for the pavement design are as listed below:

- Airbus 319 and 320 (air carrier)
- Dassault Falcon 900 (corporate jet)

Taxiway D may be widened and strengthened in the future to support ADG V aircraft, which could include B787-800 aircraft according to the recent Airport Master Plan Update. The previously designed centerline profile will allow for asphalt overlay pavement strengthening while simultaneously remaining below the centerline profile of adjacent runways in accordance with FAA standard.

Accordingly, no further pavement design or fleet mix revisions are included in this scope of work.

### **II-C04. Airfield Marking**

Marking of the new paved taxiway surface was designed previously in accordance with FAA AC 150/5340-1M Standards for Airport Markings. Revisions to pavement marking plans are expected to be minor in nature.

### **II-C05. Airfield Lighting and Signage Design**

Previously incorporated features of the airfield lighting and signage design approach will remain in the revised Contract Documents, including but not necessarily limited to the following:

- Junction Can Plazas
- “Complete Kit” or “Superkit” connectors
- Lightning Protection
- LED light fixtures and airfield signs



- L-806 Wind Cone
- ALCMS Modifications
- Airfield Vault Modifications

#### ***II-C05a. Airfield Electrical Circuits***

The previously-completed design of the duct and circuiting system associated with the new Taxiway D will be revisited and revised as required to address conflicts between the electrical ductbank system design and revised stormwater design. This may include relocation of direct bury conduit or concrete encased ductbanks, junction can plazas, handholes, and other applicable airfield lighting features. This will also include revision to airfield circuiting plans associated with any required design revisions to raceway locations.

### **II-C06. Perimeter Road, Fencing, and Security**

#### ***II-C06a. Perimeter Road and Fencing***

The new Taxiway D alignment will conflict with the existing perimeter road and perimeter fencing. The airport's perimeter road will be relocated outside the ADG III TOFA of Taxiway D as previously directed by FAA ADO staff. This will be designed as a 15 ft single-lane road suitable for use by the Airport's Operations, Facilities, and ARFF vehicles. The previously designed horizontal and vertical alignment of the perimeter road will be reused where possible, subject to revisions associated with conceptual layout of future airside development on the Airco parcel.

Previous design details for Wildlife Exclusion Fence will be utilized. The alignment of AOA perimeter fencing will be revised simultaneously with perimeter road revisions, where required.

Additionally, the locations of proposed excavations on the Airco parcel may be difficult to access from the landside. CONSULTANT will assist the Airport in engaging local Transportation Security Administration (TSA) staff to formally review fencing and access control aspects of the project, including the addition of temporary locked manual swing gates to ease construction of the project.

#### ***II-C06b. Access Control***

Perimeter Gate C serves as the singular access point for The Landings T-hangar tenant buildings on the north side of the airfield. The airport currently has both access control and camera feeds located at Gate C. Fiberoptic connectivity for Perimeter Gate C is fed from the gate communications cabinet located at Gate F and run parallel to Runway 4-22 near the alignment of the new stormwater canal. This cable has previously been determined to be shallow in depth. Pending receipt of soft-dig verification at the crossing point, it is likely this fiberoptic cable will conflict with the new canal construction.

CONSULTANT will evaluate possible solutions to maintain communications to Gate C, which may include one of the following:

- Removal and replacement with a new fiber cable including underground conduit, cable, and structures as necessary.
- Evaluation of wireless transmission.



- Splicing of fiberoptic cable.

CONSULTANT understands that airside portions of the Airco parcel can reasonably be expected to involve multiple access-controlled doors and gates along with security camera feeds, however the specific needs have not yet been identified in sufficient detail to include in this project.

#### **II-C07. Airport Operations and Construction Phasing**

Among the most important features of the overall PROJECT development will be the establishment of the proper phasing plan to accomplish the design and construction objectives, while keeping airfield pavements open to aircraft movement to the maximum extent possible throughout construction.

The project Phasing plans will include, the location of contractor haul routes, construction staging areas, materials storage area, waste disposal area, location of barricades, flagmen, restricted areas, plus any other applicable notes to contractor concerning required phasing and staging during construction.

Portions of the Construction Safety and Phasing Plan drawings from the original design will be reused where practicable, however the revised footprint of the project is anticipated to change the Phasing Plan significantly. The phasing and sequencing of the project will be redesigned based upon the revised approach to the stormwater system.

#### **II-C08. Construction Specifications**

Technical Specifications completed previously will be revised as appropriate based upon revisions to the design. Airfield work will utilize specifications conforming to AC 150/5370-10H, Standard Specifications for Construction of Airports.

### **II-D. Permit Agency Design and Applications**

#### **II-D01. Stormwater Design and Permitting**

Stormwater Design shall be in conformance with the following governing standards:

- FAA AC 150/5320 – 5D Airport Drainage Design, Developed in collaboration with the Department of Defense Unified Facilities Criteria (DOD UFC) for Surface Drainage Design.
- Florida Department of Transportation Statewide Airport Stormwater Best Management Practices Manual, and Florida Chapter 62-330 F.A.C. Statewide Environmental Resource Permitting (SWERP).
- Southwest Florida Water Management District Applicant's Handbook Volume II.
- Pinellas County Stormwater Manual.
- Stormwater Master Plan for St. Pete-Clearwater International Airport.

To the extent practical, the following criteria will be used in the stormwater design:

- Water Quality Treatment for pavement runoff by overland flow method, and by temporary storage in wide shallow swales (linear dry ponds).
- Exemption from attenuation due to revised stormwater flow pattern to discharge to Old Tampa Bay.



- Floodplain storage compensation for portions of the project considered by permitting agencies to be riverine floodplains. Compensation is not anticipated to be necessary for coastal floodplain.

#### ***II-D01a. Preliminary Design***

Specific tasks to be performed under the scope of work for stormwater design include:

1. Data collection and review of historical reports, studies, and previous permits.
2. Perform a post-survey field visit to review existing features.
3. Prepare revised stormwater system layout for review with PIE and DRS, including conceptual layout of future airside development.
4. Schedule and participate in preliminary design meetings with Pinellas County Design Review Services, PIE, and other stakeholders to discuss the project and determine specific county stormwater requirements, goals and opportunities, (three meetings; virtual or in-person).
5. Schedule and participate in a pre-application meeting with the SWFWMD, (virtual or in-person).

#### ***II-D01b. Engineering Phase Design***

Prepare Final Engineering Design of the Stormwater System at 90. Specific tasks to include:

1. Determine Sub-basin Modeling Areas, Times of Concentration, Composite Curve Numbers, Design Discharge Tailwater Stages, and other modeling criteria.
2. Pre-vs-Post Stormwater Modeling
3. Design System Conveyances (Flowing Swales, Inlets and Pipes), and Outfall Control Structure(s).
4. Water Quality Calculations/ Nutrient Calculations.
5. Meetings/Coordination with PIE, Pinellas County Design Review Services, and Pinellas County Public Works, (three meetings; virtual or in-person).
6. Preparation of Pinellas County Stormwater Permit Application.
7. Preparation of SWFWMD Permit Application.
8. Provide updated narrative for the Engineering Report (90% and Final 100%).
9. Quality Assurance Reviews (90% and Final 100%).

#### ***II-D01c. Prior Floodplain Compensation Design***

Typically, floodplain compensation is provided by excavation within the same subbasin as a floodplain encroachment i.e. cup-for-cup compensatory storage. For this project, such excavation in the vicinity of the taxiway would generate a wildlife hazard in the form of wet pond condition adjacent to the airport's main air carrier



runway. Accordingly, compensation will need to be provided elsewhere in the project.

Pinellas County DRS required the Effective Roosevelt Creek Riverine Watershed model be run and compared to the Proposed Conditions model. The Effective Model (EM), issued in approx. 2007, was out-of-date due to several airfield development projects that had occurred since the model became effective, leading to inaccurate results. DRS required the effective model be updated to reflect present-day conditions, known as the Revised Effective Model (REM). CONSULTANT revised the watershed model in several locations on and adjacent to the airport in coordination with a County-approved peer reviewer. Tasks included:

1. Revised Roosevelt Creek Effective Model (REM) associated with riverine floodplain compensation to update the airport and some adjacent areas.
2. Coordinate REM modeling parameters with model Peer Reviewer.
3. Provided completed REM model and associated exhibits for Peer Reviewer's use.
4. Revised Roosevelt Creek Proposed Conditions Model (PCM) associated with riverine floodplain compensation per updates to the REM described above.
5. Conducted coordination meeting with Peer Reviewer to present an overview of the stormwater approach and details of the stormwater system design.
6. Provided completed PCM model and associated exhibits for Peer Reviewer's use.

#### ***II-D01d. Floodplain Compensation Design***

Pinellas County DRS will require the Roosevelt Creek Riverine Watershed to be re-modeled under revised existing and proposed conditions to confirm no off-site impacts occur due to the project. Tasks will include:

1. Revise previously completed Roosevelt Creek Revised Effective Model (REM) associated with riverine floodplain compensation to update areas of the airport anticipated to be added to the project footprint.
2. Coordinate REM modeling parameters with model Peer Reviewer.
3. Provide completed REM model and associated exhibits for Peer Reviewer's use.
4. Revise Roosevelt Creek Proposed Conditions Model (PCM) associated with riverine floodplain compensation per updates to the REM described above, and to incorporate the revised stormwater system design.
5. Conduct coordination meeting with Peer Reviewer to present an overview of the stormwater approach and details of the stormwater system design.
6. Provide completed PCM model and associated exhibits for Peer Reviewer's use.
7. Prepare Narrative Summary comparing REM to RCM modeling results.



8. Coordinate with PIE staff to submit to Pinellas County DRS a waiver request associated with compensating storage provided in different subbasin than encroachment and use of culverts for compensation conveyance.

#### **II-D02. Environmental Permitting**

The PROJECT partially falls within the footprint of the Airco parcel, with the remaining portion falling within the current perimeter security fence of the airfield.

The Airport previously completed an Environmental Assessment associated with development of the Airco parcel, including receipt of a Finding of no Significant Impact (FONSI). It is anticipated no NEPA environmental permitting will be required for any portion of the project falling within the Airco parcel footprint.

#### **II-D03. Utility Design and Permitting**

Utility Adjustments for this project consist of a Pinellas County 16-inch diameter potable water main, and two major City of Largo large diameter transmission mains existing within a 20-foot utility easement: a 20-inch diameter reclaimed water main, and a 30-inch diameter effluent main.

These utility adjustments have previously been designed. The alignment of utility adjustments may need to be revised pending the final stormwater system design which may conflict with the relocated utility line design.

CONSULTANT will coordinate with Pinellas County Utilities and the City of Largo as appropriate to obtain concurrence with the revised utility alignments.

Specific tasks to be performed under the scope of work for utility adjustment design include:

##### ***II-D03a. Engineering Phase Design***

Prepare Final Engineering Design of the Utility Adjustments at 50%, 90%, and Final 100% Plans. Specific tasks to include:

1. Revise Design of Utility Adjustments. Phase submittals with utility owners and PIE for review and comment.
2. Revise Phasing Plans of utility adjustments, and sequence of switch-over of services to new mains.
3. Meetings/Coordination with PIE, Pinellas County Utilities/Public Works, and City of Largo Utilities, (two meetings; virtual or in-person).
4. Update Utility Adjustments narrative for the Engineering Report (90% and Final 100%).
5. FDEP Permitting for Potable Water Main Construction. Presumes FDEP Permitting is not required for Reclaimed Water and Effluent Main Utility Adjustments.

#### **II-D04. Obstruction Evaluation and Airport Airspace Analysis (OE/AAA)**

CONSULTANT will prepare a Construction Safety and Phasing Plan (CSPP) and Analyze the impact of the PROJECT on airspace at the airport. Once coordinated and approved, these items will be provided to the Airport to be submitted to FAA for review using the FAA's OE/AAA system.



#### ***II-D04a. Construction Safety and Phasing Plan***

All airfield projects at airports with a Part 139 certification require a Construction Safety and Phasing Plan, irrespective of funding source. The Construction Safety and Phasing Plan will be prepared in accordance with AC 150/5370-2G, Operational Safety on Airports During Construction. Aspects of the CSPP generally include:

- Coordination procedures to be followed by Contractors and other project stakeholders during construction
- Phasing drawings of the Construction Plans as an attachment
- Graphical representations of safety and phasing aspects of the PROJECT not otherwise included in the Phasing drawings of the Construction Plans
- Impacts to normal airfield activities and restrictions on construction activities, to be coordinated with Airport Operations during design
- Construction access
- Protection of NAVAIDs to remain in place and/or operational during construction
- Marking and/or lighting of construction zones and construction equipment
- Management and prevention of FOD

The Construction Safety and Phasing Plan is considered a separate Contract Document equally as binding to the Contractor as the technical specifications and plans.

#### ***II-D04b. Airspace***

CONSULTANT will carefully analyze the project's impact on various imaginary surfaces prescribed by AC 150/5300-13A (Airport Design) and 14 CFR Part 77 (Safe, Efficient Use, and Preservation of the Navigable Airspace). Impacts to NAVAIDs will be coordinated with the Airport as part of the Construction Safety and Phasing Plan. In addition, CONSULTANT will estimate the size of construction equipment necessary to construct the project and incorporate the necessary equipment height into the design of the phasing plans, as well as providing temporary equipment points at critical locations on the project site for analysis by the FAA.

### **III. DESIGN PHASE**

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#### **III-A. 90% Design**

##### **III-A01. Field Investigation**

Coordinate with Airport Operations to schedule subconsultant field activities. Provide escort for unbadged team members, or provide access for badged team members requiring access to restricted areas beyond their badged access privileges, such as the movement area.





**III-A02. Pre-application Meetings**

Arrange, prepare for and attend pre-application meetings with permitting agencies. This includes SWFWMD, Pinellas County DRS, and the City of Largo.

**III-A03. Calculations**

Complete 90% design Engineering Calculations (excluding stormwater – covered elsewhere) and Schedule of Submittals.

**III-A04. Cost Estimate**

Prepare 90% Engineer's Estimate of Probable Cost for the Design. Estimate at this stage is anticipated to contain 5% contingency.

**III-A05. Engineering Report**

Prepare 90% Engineering Report. Document final design decisions and findings in the report.

**III-A06. Project Manual**

Prepare the 90% design level project manual. Finalize General and Special Provisions, Bid Forms, Technical Specifications.

**III-A07. Plans**

Prepare and submit 90% design level plans. Design at this stage will be near-final.

**III-A08. QA/QC**

Conduct an in-house quality control review of the design plans, Project Manual, 90% estimate of probable cost, permits and Engineer's Report.

**III-A09. 90% Review Meeting**

A 90% review meeting will be conducted with the Airport. It is understood that once the Airport comments have been satisfactorily addressed, the 90% documents will be revised to incorporate these comments into the 100% documents that will become the ISSUED FOR BID set.

**III-A10. Documentation**

Provide written documentation to correspondence received at meetings, telephone calls or email. Correspondence deemed significant to the project will also be attached the next version of the Engineer's Report.

**III-A11. Funding Agency Review**

It is anticipated that the funding agencies will conduct a review on this project. The CONSULTANT will anticipate coordinating with the reviewers. The CONSULTANT will incorporate any necessary changes into the final documents. This item also includes additional correspondence, conference calls, making plan revisions, addressing comments, and documentation of revisions.

**III-B. Final Design**

**III-B01. Working Design Meetings**

The CONSULTANT will prepare for and attend one interim design review and Project Coordination meeting between the 90% submittal and the 100% submittal.



**III-B02. Regulatory Agency Permits**

Regulatory agency permits, including but not limited to Southwest Florida Water Management District, Pinellas County DRS, Pinellas County Utilities, City of Largo Utility, will be submitted at final design. Components of the permit which are assembled by subconsultants will be compiled, reviewed and submitted by the prime CONSULTANT. The prime CONSULTANT will be the primary point of contact for the permit agencies.

**III-B03. Cost Estimate**

Finalize Engineer's Estimate of Probable Cost for the construction of the project.

**III-B04. Engineering Report**

Finalize and submit the Engineering Report containing any revisions generated by the final permitting process.

**III-B05. 100% Project Manual**

Prepare the 100% design level project manual for use during the bidding phase. Finalize General and Special Provisions, Bid Forms, Technical Specifications.

**III-B06. 100% Plans**

Complete the 100% plans for use during bidding phase. Address outstanding comments. CONSULTANT will review purchasing requirements and make adjustments to remove any conflicting information in the plans and specifications.

**III-B07. QA/QC**

Conduct an in-house quality control review of the design plans, Project Manual, 100% estimate of probable cost, permits and Engineer's Report.

**III-B08. Documentation**

Provide written documentation to correspondence received at meetings, telephone calls or email. Correspondence deemed significant to the project will also be attached the final version of the Engineer's Report.

**IV. BIDDING PHASE SERVICES**

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**IV-A. Bidding Assistance**

Assist the County/Airport in advertising and obtaining bids for the prime contract for construction, materials, equipment and services. County will issue bidding and contract documents to all prospective bidders.

**IV-B. Conduct Pre-bid Conference**

Prepare for, attend and conduct one prebid conference and site visit in conjunction with the County/Airport staff to outline the project and answer questions from interested contractors. CONSULTANT will prepare the minutes of the prebid conference and provide to County Purchasing through the Airport for distribution to the list of attendees and future plan holders within the bid period.



#### **IV-C. Respond to Bidder's Inquiries**

Prepare addenda as appropriate to interpret, clarify or expand the Bidding Documents within the bid period and upon approval by the Airport, issue addenda to County Purchasing for distribution.

#### **IV-D. Evaluate Bids and Recommend Award**

Prepare bid tabulation summary and assist the County/Airport in evaluating bids or proposals and in assembling contracts for construction, materials, equipment and services. Provide written recommendations to the County/Airport for the award of construction contract to the most favorable, responsive bidder.

#### **IV-E. Conformed Construction Documents**

Issue executed contract documents and assemble conformed documents including all addenda, for issue to the Airport and the Contractor.

### **V. BASIC ASSUMPTIONS**

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The following is a list of assumptions, which forms the basis of this cost proposal for providing the services for the project.

1. The Airport will provide CONSULTANT with information requested necessary to properly complete design. Items include, but are not limited to:
  - a. Latest Airport Master Plan and Airport Layout Plan
  - b. Airport Stormwater Master Plan
  - c. Latest pertinent information regarding anticipated airside apron and building activities on the Airco development site
  - d. Airport Operations, Airport Facilities, and ARFF vehicles reasonably expected to traverse relocated perimeter road.
2. All data collection efforts (survey, geotechnical, etc.) requiring CONSULTANT or its subconsultant's personnel to be within the safety area of airfield will be performed during daylight hours with the appropriate pavement closed unless otherwise directed by the Airport.
3. Airport will to the extent practicable mow or otherwise clear the PROJECT area prior to field investigations such as survey, geotechnical testing, SUE, etc.
4. The following aspects of the previous completed design are not anticipated to be impacted by design revisions and will be reused without modification:
  - a. Taxiway pavement horizontal and vertical geometry
  - b. Airfield pavement markings
5. Permit Fees will be paid by the Airport.
6. Neither the CONSULTANT nor the Airport can control permit agencies' interpretation of the PROJECT, associated review times, and lead times associated with agency field visits. Should a permit agency require more extensive permitting than assumptions contained herein, CONSULTANT will advise the Airport of Additional Services necessary to complete the permitting process.



7. No wetland impacts or wetland mitigation is anticipated (as documented in the January 2020 Environmental Assessment for the Redevelopment of the Airco Parcel).
8. It is anticipated that the project should be exempt from Section 404 permitting under the Clean Water Act (assumed by the State of Florida by the FDEP) because the project impacts are limited to upland cut drainage ditches that are part of a permitted stormwater management system. This scope of work does not include State Assumed 404 permitting.
9. Potential listed species impacts for state-listed species are not anticipated to require mitigation with the exception of gopher tortoises if their burrows are encountered.
10. Threatened or Endangered Species (T&E) permitting/relocations, Environmental Assessments (EA), Development of Regional Impacts (DRI), or Environmental Impact Statements (EIS) are not anticipated to be necessary and are excluded from the scope of work.
11. Potential federally-listed species identified in the 2020 EA document included Eastern Indigo Snakes and Wood Storks, both protected under the Endangered Species Act. It is not anticipated that a Biological Opinion or mitigation associated with potential impacts to these species will be necessary. Agency coordination included in this scope of work is limited to relaying existing information documented in the 2020 EA updated to reflect the current project's potential impacts.
12. FDEP Permitting is not required for Reclaimed Water and Effluent Main Utility Adjustments as previously coordinated with the City of Largo and FDEP.
13. Additional Construction Management and RPR services may be necessary pending the appropriate duration of the revised project design. These services have not been included in this scope due to the uncertainty of the extent of the improvements required by permitting agencies.
14. Other Services: Any other services not specifically listed in this Scope of Services are Additional Services.

## **VI. CONTINGENCY SERVICES**

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When required by the Airport, CONSULTANT shall furnish or obtain from others, as circumstances may require, additional services of the types listed below. These services are not included as part of Basic or Optional Services. CONSULTANT shall advise the Airport and receive prior approval before starting any such Contingency Services which will be paid for in accordance with the Task Order or Supplement thereto.

1. Services in connection with work directive changes and change orders requested by the County/Airport not covered by the Basic or Optional Services.
2. Services resulting from revisions and re-bidding, should the Airport reject bids
3. Additional services resulting from a construction duration, Construction Administration, or RPR services duration exceeding that which has been provided for at the outset of design in this Scope and attached fee.
4. Evaluating an unreasonable or extensive number of claims submitted by contractor(s) or others in connection with the work.
5. Services resulting from the contractor's failure to complete his work in the number of days allowed in the contract between the Airport and the selected contractor.
6. No wetland impacts or wetland mitigation is anticipated (as documented in the January 2020 Environmental Assessment for the Redevelopment of the Airco Parcel).



7. It is anticipated that the project should be exempt from Section 404 permitting under the Clean Water Act (assumed by the State of Florida by the FDEP) because the project impacts are limited to upland cut drainage ditches that are part of a permitted stormwater management system. This scope of work does not include State Assumed 404 permitting.
8. Potential listed species impacts for state-listed species are not anticipated to require mitigation with the exception of gopher tortoises if their burrows are encountered. Threatened or Endangered Species (T&E) permitting/relocations not included in the scope of work.
9. Potential federally-listed species identified in the 2020 EA document included Eastern Indigo Snakes and Wood Storks, both protected under the Endangered Species Act. It is not anticipated that a Biological Opinion or mitigation associated with potential impacts to these species will be necessary. Agency coordination included in this scope of work is limited to relaying existing information documented in the 2020 EA updated to reflect the current project's potential impacts.
10. Environmental Assessments (EA), Development of Regional Impacts (DRI), or Environmental Impact Statements (EIS).

**Attachment B - Cost Breakdown**

BASIC SERVICES - DESIGN PHASE	
TOTAL BASIC SERVICES :	\$ 354,288.00
TOTAL BASIC SERVICES (SPECIAL SUBCONSULTANT SERVICES) - DESIGN:	\$ 127,804.25
TOTAL BIDDING PHASE SERVICES:	\$ 13,148.00
<b><i>SUBTOTAL BASIC SERVICES - DESIGN PHASE:</i></b>	<b><i>\$ 495,240.25</i></b>

DBE PARTICIPATION	
DBE GOAL:	6.80%
PROPOSED DBE PARTICIPATION:	\$ 38,597.25
<b><i>PROPOSED DBE PARTICIPATION PERCENTAGE:</i></b>	<b><i>7.79%</i></b>

ATTACHMENT B

**BASIC SERVICES**

Section	Sub-Task	ACTIVITY	Principal \$258.00		QC Reviewer \$245.00		Project Manager \$189.00		Senior Civil Engineer \$169.00		Project Engineer \$107.00		CADD Designer \$76.00		Contract Administrator \$104.00		TOTAL	
			Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee
			<b>II Project Scope and Understanding</b>															
II-A		Project Initiation/Coordination	2	\$516		\$0	12	\$2,268		\$0	4	\$428	4	\$304	4	\$416	26	\$ 3,932.00
II-C		Subconsultant Coordination																
	II-C01	Project Survey		\$0	2	\$378	64	\$10,816		\$0	2	\$152		\$0		\$0	68	\$ 11,346.00
	II-C02	Subsurface Utility Engineering		\$0	2	\$378	48	\$8,112		\$0	2	\$152		\$0		\$0	52	\$ 8,642.00
	II-C03	Geotechnical Investigations		\$0	1	\$189	8	\$1,352		\$0	2	\$152		\$0		\$0	11	\$ 1,693.00
	II-C04	Drainage and Stormwater Permitting		\$0		\$0	32	\$6,048		\$0		\$0	1	\$76		\$0	33	\$ 6,124.00
	II-C05	Environmental Permitting		\$0		\$0	16	\$3,024		\$0		\$0		\$0		\$0	16	\$ 3,024.00
II-D		Permit Agency Design and Applications																
	II-D01	Stormwater Design and Permitting																
	II-D01a	Preliminary Design		\$0		\$0	24	\$4,536	20	\$3,380	24	\$2,568	40	\$3,040		\$0	108	\$ 13,524.00
	II-D01b	Engineering Phase Design		\$0		\$0	60	\$11,340	140	\$23,660	40	\$4,280	30	\$2,280		\$0	270	\$ 41,560.00
	II-D01c	Prior Floodplain Compensation		\$0		\$0	110	\$20,790	230	\$38,870		\$0	19	\$1,444		\$0	359	\$ 61,104.00
	II-D01d	Floodplain Compensation Design		\$0		\$0	4	\$756	24	\$4,056		\$0	8	\$608		\$0	36	\$ 5,420.00
		Revise REM and Exhibits		\$0		\$0	6	\$1,134	80	\$13,520	20	\$2,140	12	\$912		\$0	118	\$ 17,706.00
		Prepare FCM and Exhibits		\$0		\$0										\$0		
	II-D02	Environmental Permitting		\$0	1	\$245	16	\$3,024		\$0	8	\$856		\$0	2	\$208	27	\$ 4,333.00
	II-D03	Utility Design and Permitting		\$0	1	\$245	44	\$8,316		\$0	32	\$3,424	16	\$1,216		\$0	93	\$ 13,201.00
	II-D04	OE/AAA																
	II-D05a	CSPP		\$0	2	\$490	6	\$1,134	8	\$1,352	24	\$2,568	4	\$304	4	\$416	48	\$ 6,264.00
	II-D05b	Airspace Analysis		\$0		\$0	2	\$378	8	\$1,352	10	\$1,070	12	\$912		\$0	32	\$ 3,712.00
		<i>SUBTOTAL Project Scope and Understanding:</i>	<i>2</i>	<i>\$516</i>	<i>4</i>	<i>\$980</i>	<i>337</i>	<i>\$63,693</i>	<i>630</i>	<i>\$106,470</i>	<i>162</i>	<i>\$17,334</i>	<i>152</i>	<i>\$11,552</i>	<i>10</i>	<i>\$1,040</i>	<i>1297.00</i>	<i>\$ 201,585.00</i>
<b>III Design Phase</b>																		
<b>III-A 90% Design</b>																		
	III-A01	Field Investigation		\$0		\$0	4	\$756	4	\$676		\$0		\$0		\$0	8	\$ 1,432.00
	III-A02	Pre-Application Meetings		\$0		\$0	6	\$1,134	8	\$1,352		\$0	4	\$304		\$0	18	\$ 2,790.00
	III-A03	Calculations		\$0		\$0	8	\$1,512	4	\$676	12	\$1,284		\$0		\$0	24	\$ 3,472.00
	III-A04	Cost Estimate		\$0		\$0	3	\$567	8	\$1,352	12	\$1,284	16	\$1,216	2	\$208	41	\$ 4,627.00
	III-A05	Engineering Report	1	\$258		\$0	4	\$756	6	\$1,014	6	\$642		\$0	2	\$208	19	\$ 2,878.00
	III-A06	Project Manual		\$0		\$0	4	\$756	16	\$2,704		\$0		\$0	6	\$624	26	\$ 4,084.00
	III-A07	Plans	6	\$1,548	0	\$0	86	\$16,294	154	\$28,026	127	\$13,588	305	\$23,180	0	\$0	678.00	\$ 80,597.00
	III-A08	QA/QC		\$0		\$0		\$0		\$0		\$0		\$0		\$0	45	\$ 9,010.00
	III-A09	90% Review Meeting	1	\$258	32	\$7,840		\$0	3	\$567		\$0		\$0		\$0	7	\$ 1,332.00
	III-A10	Documentation		\$0		\$0	4	\$756		\$0	4	\$428		\$0		\$0	8	\$ 1,184.00
	III-A11	Funding Agency Review		\$0		\$0	2	\$378		\$0		\$0	2	\$152	1	\$104	5	\$ 634.00
		<i>SUBTOTAL 90% Design:</i>	<i>9</i>	<i>\$ 2,322</i>	<i>32</i>	<i>\$ 7,840</i>	<i>124</i>	<i>\$ 23,436</i>	<i>203</i>	<i>\$ 34,307</i>	<i>161</i>	<i>\$ 17,227</i>	<i>339</i>	<i>\$ 25,764</i>	<i>11</i>	<i>\$ 1,144</i>	<i>879.00</i>	<i>\$ 112,040.00</i>

ATTACHMENT B

**BASIC SERVICES**

Section	Sub-Task	ACTIVITY	Position		Principal		QC Reviewer		Project Manager		Senior Civil Engineer		Project Engineer		CADD Designer		Contract Administrator		TOTAL	
			Hourly Rate		\$258.00		\$245.00		\$189.00		\$169.00		\$107.00		\$76.00		\$104.00			
			Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee
<b>III-B Final Design</b>																				
		III-B01 Working Design Meeting	1	\$258	0	\$0	4	\$756	6	\$1,014		\$0	2	\$152		\$0			13	\$2,190.00
		III-B02 Regulatory Agency Permits		\$0		\$0	8	\$1,512	20	\$3,380	56	\$5,992	36	\$2,736	4	\$416			124	\$14,036.00
		III-B03 Cost Estimate		\$0		\$0	1	\$189	2	\$338	2	\$214	8	\$608	1	\$104			14	\$1,453.00
		III-B04 Engineering Report		\$0	0	\$0	3	\$567	2	\$338		\$0		\$0	2	\$208			7	\$1,113.00
		III-B05 100% Project Manual		\$0	0	\$0	2	\$378	6	\$1,014		\$0		\$0		\$0			8	\$1,392.00
		III-B06 100% Plans	1	\$258	0	\$0	15	\$2,835	27	\$4,563	22	\$2,354	54	\$4,104	0	\$0			119	\$14,114.00
		III-B07 QA/QC	1	\$258	20	\$4,900		\$0		\$0		\$0		\$0		\$0			21	\$5,158.00
		III-B08 Documentation		\$0	0	\$0	3	\$567	2	\$338		\$0		\$0		\$0			3	\$312.00
		<b>SUBTOTAL Final Design:</b>	<b>3</b>	<b>\$ 774</b>	<b>20</b>	<b>\$ 4,900</b>	<b>36</b>	<b>\$ 6,804</b>	<b>65</b>	<b>\$ 10,985</b>	<b>80</b>	<b>\$ 8,560</b>	<b>100</b>	<b>\$ 7,600</b>	<b>10</b>	<b>\$ 1,040</b>			<b>314.00</b>	<b>\$ 40,663.00</b>
<b>TOTALS</b>			<b>14</b>	<b>\$3,612</b>	<b>56</b>	<b>\$13,720</b>	<b>497</b>	<b>\$93,933</b>	<b>898</b>	<b>\$151,762</b>	<b>403</b>	<b>\$43,121</b>	<b>591</b>	<b>\$44,916</b>	<b>31</b>	<b>\$3,224</b>			<b>2490.00</b>	<b>\$ 354,288.00</b>

TOTAL BASIC SERVICES : \$ 354,288.00



ATTACHMENT B

PLAN SHEET PREPARATION - BASIC SERVICES

	Position Hourly Rate	Principal \$258.00		QC Reviewer \$245.00		Project Manager \$189.00		Senior Engineer \$169.00		Project Engineer \$107.00		CADD Designer \$76.00		Contract Administrator \$104.00		TOTAL		
		No. of sheets	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee
<b>ENGINEERING/ DESIGN AND PLAN SHEET PREPARATION</b>																		
<b>General Drawings</b>																		
COVER SHEET	1		\$0	\$0	1	\$189	\$0	\$0		2	\$152	\$0		3	\$0	3	\$0	\$341.00
INDEX OF DRAWINGS	3		\$0	\$0		\$0	\$0			2	\$152	\$0		2	\$0	2	\$0	\$152.00
PROJECT LAYOUT	1		\$0	\$0	4	\$756	4	\$676	6	\$642	12	\$912	\$0		26	\$0	26	\$2,986.00
SUMMARY OF QUANTITIES	1		\$0	\$0	4	\$756	4	\$676	6	\$642	12	\$912	\$0		26	\$0	26	\$2,986.00
GENERAL CONSTRUCTION NOTES	1		\$0	\$0		\$0	2	\$338			2	\$152	\$0		4	\$0	4	\$490.00
AIRSPACE PLAN	3		\$0	\$0	3	\$967	4	\$676			4	\$304	\$0		11	\$0	11	\$1,547.00
OVERALL PHASING PLAN	1	2	\$516	\$0	4	\$756	12	\$2,028	8	\$856	16	\$1,216	\$0		42	\$0	42	\$5,372.00
CONSTRUCTION PHASING PLANS	13	2	\$516	\$0	6	\$1,134	32	\$5,408	16	\$1,712	24	\$1,824	\$0		80	\$0	80	\$10,594.00
CONSTRUCTION SAFETY NOTES & DETAILS	2		\$0	\$0		\$0	2	\$338			2	\$152	\$0		4	\$0	4	\$490.00
GEOTECHNICAL INVESTIGATION PLAN	1		\$0	\$0		\$0	1	\$169			4	\$304	\$0		5	\$0	5	\$473.00
GEOTECHNICAL INVESTIGATION LOGS	8		\$0	\$0		\$0	1	\$169			4	\$304	\$0		5	\$0	5	\$473.00
EXISTING CONDITIONS PLAN (1"-30" TYP)	10		\$0	\$0	2	\$378	2	\$338	8	\$856	12	\$912	\$0		22	\$0	22	\$2,146.00
SUBSURFACE UTILITY ENGINEERING PLAN	6		\$0	\$0	2	\$378	2	\$338	4	\$428	10	\$760	\$0		18	\$0	18	\$1,904.00
<b>Civil Drawings</b>																		
EROSION CONTROL PLAN	7		\$0	\$0	1	\$189	4	\$676	3	\$321	16	\$1,216	\$0		24	\$0	24	\$2,402.00
EROSION CONTROL DETAILS	4		\$0	\$0		\$0	2	\$338			2	\$152	\$0		4	\$0	4	\$490.00
UTILITY ADJUSTMENT PLAN AND PROFILE	5		\$0	\$0	12	\$2,268	\$0	\$0	8	\$856	16	\$1,216	\$0		36	\$0	36	\$4,340.00
UTILITY ADJUSTMENT DETAILS	7		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00
DEMOLITION PLAN	8		\$0	\$0	8	\$1,512	16	\$2,704			20	\$1,520	\$0		44	\$0	44	\$5,736.00
TYPICAL SECTIONS AND CONSTRUCTION DETAIL	7		\$0	\$0	2	\$378	4	\$676			4	\$304	\$0		10	\$0	10	\$1,358.00
ALIGNMENT AND GEOMETRY PLAN	8		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00
GRADING AND DRAINAGE PLAN	10	1	\$258	\$0	12	\$2,268	16	\$2,704			30	\$2,280	\$0		59	\$0	59	\$7,510.00
GRADING PLAN AND PROFILE	7	1	\$258	\$0	12	\$2,268	12	\$2,028	10	\$1,070	20	\$1,520	\$0		55	\$0	55	\$7,144.00
DRAINAGE DETAILS	64		\$0	\$0	4	\$756	4	\$676			12	\$912	\$0		20	\$0	20	\$2,344.00
CROSS SECTIONS	20		\$0	\$0	4	\$756	10	\$1,690			16	\$1,216	\$0		30	\$0	30	\$3,662.00
PAVEMENT MARKING PLAN	8		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00
PAVEMENT MARKING DETAILS	4		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00
LANDSCAPING PLAN	9		\$0	\$0	1	\$189	6	\$1,014			8	\$608	\$0		15	\$0	15	\$1,811.00
<b>Fencing and Security Drawings</b>																		
FENCING PLAN	3		\$0	\$0	2	\$378		\$0	4	\$428	6	\$456	\$0		12	\$0	12	\$1,262.00
FENCING DETAILS	3		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00
TECHNOLOGY (FIBER OPTIC) PLANS	6	1	\$258	\$0	4	\$756	8	\$1,352	24	\$2,568	36	\$2,736	\$0		73	\$0	73	\$7,670.00
TECHNOLOGY (FIBER OPTIC) DETAILS	4		\$0	\$0	2	\$378	8	\$1,352	32	\$3,424	16	\$1,216	\$0		58	\$0	58	\$6,370.00
<b>Airfield Lighting and Signage Drawings</b>																		
ELECTRICAL GENERAL NOTES	1		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00
ELECTRICAL LEGEND	1		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00
TEMPORARY AIRFIELD LIGHTING PLAN	4		\$0	\$0	2	\$378	2	\$338			4	\$304	\$0		8	\$0	8	\$1,020.00
TEMPORARY AIRFIELD LIGHTING DETAILS	1		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00
AIRFIELD LIGHTING KEY PLAN	1		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00
AIRFIELD LIGHTING DEMOLITION PLAN	7		\$0	\$0	1	\$189	4	\$676	10	\$1,070	8	\$608	\$0		23	\$0	23	\$2,543.00
AIRFIELD LIGHTING LAYOUT PLAN	7		\$0	\$0	1	\$189	2	\$338			4	\$304	\$0		7	\$0	7	\$831.00
AIRFIELD LIGHTING CIRCUITING PLAN	7		\$0	\$0	1	\$189	3	\$507	8	\$856	8	\$608	\$0		20	\$0	20	\$2,160.00
AIRFIELD SIGN SCHEDULE	2		\$0	\$0	1	\$189		\$0			2	\$152	\$0		3	\$0	3	\$341.00
AIRFIELD SIGN DETAILS	5		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00
AIRFIELD LIGHTING ELEVATED FIXTURE DETAILS	1		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00
AIRFIELD LIGHTING SEMI-FLUSH FIXTURE DETAIL	2		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00
BASE CAN DETAILS	1		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00
JUNCTION CAN PLAZA DETAILS	1		\$0	\$0	1	\$189		\$0	2	\$214	4	\$304	\$0		7	\$0	7	\$707.00
DUCT DETAILS	1		\$0	\$0	2	\$378		\$0			3	\$228	\$0		5	\$0	5	\$606.00
UTILITY PROTECTION DETAILS	1		\$0	\$0		\$0	\$0	\$0			\$0	\$0	\$0		0	\$0	0	\$0.00

ATTACHMENT B

PLAN SHEET PREPARATION - BASIC SERVICES

Position	Principal \$258.00		QC Reviewer \$245.00		Project Manager \$189.00		Senior Engineer \$169.00		Project Engineer \$107.00		CADD Designer \$76.00		Contract Administrator \$104.00		TOTAL		
	No. of sheets	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee		
AIRFIELD WIRING DETAILS	1		\$0		\$0		\$0		\$0		\$0		\$0		\$0	0.00	\$ -
AIRFIELD LIGHTNING ARRESTOR DETAILS	2		\$0		\$0		\$0		\$0		\$0		\$0		\$0	0.00	\$ -
<b>Airfield Vault and NAVD Drawings</b>																	
EXISTING AIRFIELD LIGHTING VAULT PLAN	1		\$0		\$0	1	\$189	4	\$676		\$0	6	\$456		\$0	11.00	\$ 1,321.00
PROPOSED AIRFIELD LIGHTING VAULT PLAN	1		\$0		\$0	1	\$189	6	\$1,014		\$0	4	\$304		\$0	11.00	\$ 1,507.00
ELECTRICAL PANEL SCHEDULES	2		\$0		\$0		\$0	3	\$507		\$0	4	\$304		\$0	7.00	\$ 811.00
ELECTRICAL ONE-LINE DIAGRAMS	2		\$0		\$0		\$0	3	\$507		\$0	4	\$304		\$0	7.00	\$ 811.00
ALCS BLOCK DIAGRAM AND SCHEMATIC	1		\$0		\$0		\$0		\$0		\$0		\$0		\$0	0.00	\$ -
ALCS FIBER OPTIC TERMINATION DIAGRAM	1		\$0		\$0		\$0		\$0		\$0		\$0		\$0	0.00	\$ -
ALCS TOUCH SCREEN LAYOUT	1		\$0		\$0		\$0		\$0		\$0		\$0		\$0	0.00	\$ -
ALCS AND CCR CONTROL PRE-SETS	1		\$0		\$0		\$0		\$0		\$0		\$0		\$0	0.00	\$ -
WIND CONE DETAILS	1		\$0		\$0		\$0		\$0		\$0		\$0		\$0	0.00	\$ -
<b>SUBTOTAL ENGINEERING/ DESIGN AND PLAN SHEET PREPARATION:</b>	<b>282</b>	<b>7</b>	<b>\$1,806</b>	<b>0</b>	<b>\$0</b>	<b>101</b>	<b>\$19,089</b>	<b>181</b>	<b>\$30,589</b>	<b>149</b>	<b>\$15,943</b>	<b>359</b>	<b>\$27,284</b>	<b>0</b>	<b>\$0</b>	<b>797.00</b>	<b>\$ 94,711.00</b>
<b>TOTALS:</b>		<b>7</b>	<b>\$1,806</b>	<b>0</b>	<b>\$0</b>	<b>101</b>	<b>\$19,089</b>	<b>181</b>	<b>\$30,589</b>	<b>149</b>	<b>\$15,943</b>	<b>359</b>	<b>\$27,284</b>	<b>0</b>	<b>\$0</b>	<b>797.00</b>	<b>\$ 94,711.00</b>

TOTAL PLAN SHEET PREPARATION - BASIC SERVICES: \$ 94,711.00

BREAKDOWN OF PLAN SHEET PREPARATION EFFORT BY SUBMITTAL (FIGURES CARRIED TO CORRESPONDING BASIC SERVICES SECTION)

	PERCENTAGE																
90% SUBMITTAL	85	6	\$1,548	0	\$0	86	\$16,254	154	\$26,026	127	\$13,589	305	\$23,180	0	\$0	678.00	\$ 80,597.00
100% SUBMITTAL	15	1	\$258	0	\$0	15	\$2,835	27	\$4,563	22	\$2,354	54	\$4,104	0	\$0	119.00	\$ 14,114.00
<b>TOTAL ENGINEERING/ DESIGN AND PLAN SHEET PREPARATION:</b>	<b>100</b>	<b>7</b>	<b>\$1,806</b>	<b>0</b>	<b>\$0</b>	<b>101</b>	<b>\$19,089</b>	<b>181</b>	<b>\$30,589</b>	<b>149</b>	<b>\$15,943</b>	<b>359</b>	<b>\$27,284</b>	<b>0</b>	<b>\$0</b>	<b>797.00</b>	<b>\$ 94,711.00</b>

\*PLAN SHEETS PREPARED FOR PERMIT APPLICATIONS OR OTHER SUBMITTALS NOT INCLUDED IN THE CONSTRUCTION PLAN SET.

ATTACHMENT B

**BASIC SERVICES (SPECIAL SUBCONSULTANT SERVICES)**

**BASIC SERVICES (SPECIAL SUBCONSULTANT SERVICES) - DESIGN**

SERVICE	DBE	TOTAL	CONSULTANT
1 Topographic Survey	x	\$19,958.25	Northwest Surveying, Inc.
2 Geotechnical Lab and Engineering Services		\$5,938.00	Tierra, Inc.
3 Subsurface Utility Engineering	x	\$18,639.00	Echo, UES
4 Drainage Design and Permitting		\$25,875.00	Landon, Moree, and Associates, Inc.
5 Drainage Support		\$26,374.00	Taylor Engineering, Inc.
6 Environmental Permitting Support		\$31,020.00	ESA

TOTAL BASIC SERVICES (SPECIAL SUBCONSULTANT SERVICES) - DESIGN: \$ 127,804.25

**BASIC SERVICES (SPECIAL SUBCONSULTANT SERVICES) - CONSTRUCTION MANAGEMENT**

SERVICE	DBE	TOTAL	CONSULTANT
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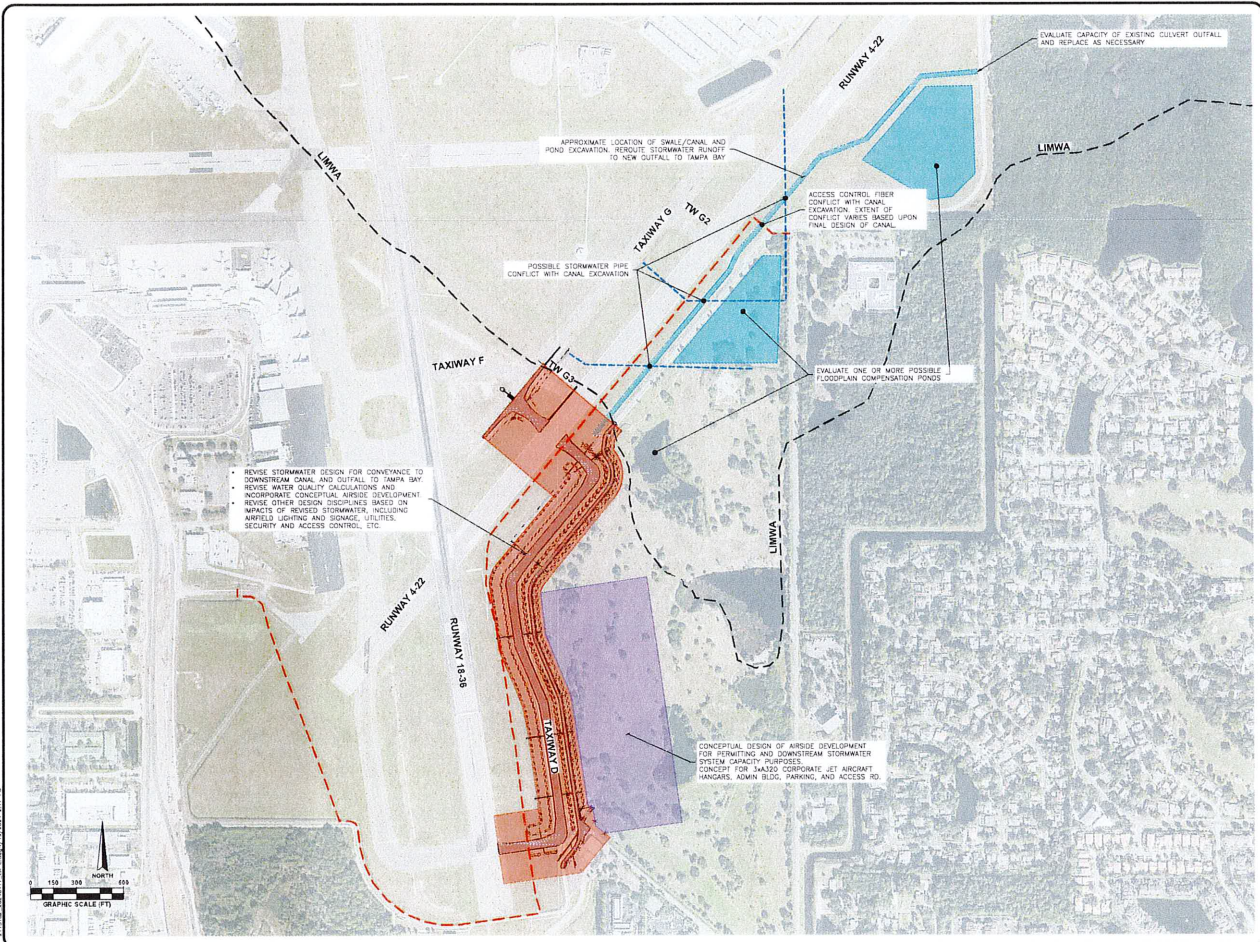
TOTAL BASIC SERVICES (SPECIAL SUBCONSULTANT SERVICES) - CONSTRUCTION MANAGEMENT: \$ -

ATTACHMENT B

**BIDDING PHASE SERVICES**

Section	Sub-Task	ACTIVITY	Position Hourly Rate	Principal		QC Reviewer		Project Manager		Senior Civil Engineer		Project Engineer		CADD Designer		Contract Administrator		TOTAL	
				\$258.00		\$245.00		\$189.00		\$169.00		\$107.00		\$76.00		\$104.00		Hours	Fee
				Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee	Hours	Fee				
<b>V BIDDING PHASE</b>																			
		V-A Bidding Assistance	\$0		\$0	2	\$378		\$0	8	\$856		\$0	2	\$208			12.00	\$ 1,442.00
		V-B Conduct Pre-bid Conference	\$0		\$0	4	\$756		\$0		\$338		\$0	2	\$152		\$104	9.00	\$ 1,350.00
		V-C Respond to Bidder's Inquiries	\$0		\$0	8	\$1,512	12	\$2,028				\$0	16	\$1,216	4	\$416	40.00	\$ 5,172.00
		V-D Evaluate Bids and Recommend Award	\$0		\$0	2	\$378		\$0	6	\$642		\$0	4	\$416			12.00	\$ 1,436.00
		V-E Conformed Construction Documents	\$0	2	\$516	4	\$756		\$0	4	\$428	16	\$1,216	8	\$832			34.00	\$ 3,748.00
<b>SUBTOTAL BIDDING PHASE:</b>				<b>0</b>	<b>\$0</b>	<b>2</b>	<b>\$516</b>	<b>20</b>	<b>\$3,780</b>	<b>14</b>	<b>\$2,366</b>	<b>18</b>	<b>\$1,926</b>	<b>34</b>	<b>\$2,584</b>	<b>19</b>	<b>\$1,976</b>	<b>107.00</b>	<b>\$ 13,148.00</b>
<b>TOTAL:</b>				<b>0</b>	<b>\$0</b>	<b>2</b>	<b>\$516</b>	<b>20</b>	<b>\$3,780</b>	<b>14</b>	<b>\$2,366</b>	<b>18</b>	<b>\$1,926</b>	<b>34</b>	<b>\$2,584</b>	<b>19</b>	<b>\$1,976</b>	<b>107.00</b>	<b>\$ 13,148.00</b>

TOTAL BIDDING PHASE SERVICES: \$ 13,148.00



AVCON, INC.  
 ENGINEERS & PLANNERS  
 1400 SOUTH BAYSHORE BLVD., SUITE 100  
 CLEARWATER, FLORIDA 34615  
 (727) 461-1111 FAX (727) 461-1112  
 WWW.AVCON.COM

**NEW AIRCO TAXIWAYS**  
**ST. PETE-CLEARWATER INTERNATIONAL AIRPORT**  
**CLEARWATER, FLORIDA**

**ATTACHMENT C**  
**REVISED AIRCO TAXIWAYS PROGRAM**

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SCALE (US SVY FT): GRAPHIC

REVISIONS:			
NO.	DATE	BY	DESCRIPTION

DESIGNED BY: MC  
 DRAWN BY: AM  
 CHECKED BY: MC  
 APPROVED BY: SS  
 DATE: APRIL 2024

FAA AIP NO.: -  
 FDOT FM NO.: -  
 AVCON PROJECT NO.: 2115102\_20241119\_02  
 CADD FILENAME: 2115102\_20241119\_02\_C

DRAWING



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**AMENDMENT TO SCOPE OF SERVICES  
PROFESSIONAL ENGINEERING SERVICES  
DESIGN OF AIRCO TAXIWAYS  
ST. PETERSBURG-CLEARWATER INTERNATIONAL AIRPORT  
CLEARWATER, FLORIDA**

**APRIL 19, 2024**

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Mr. Michael Coppage, P.E.  
 Avcon, Inc.  
 5110 Sunforest Drive, Suite #140  
 Tampa, Florida 33634

April 11, 2024

RE: PIE New Airco Taxiways Additional Scope  
 NSI Proposal No. 240404

REV. NO. 1

Dear Mr. Coppage:

Enclosed please find our fee proposal for surveying services at the above referenced site.

The scope of work is a 50' grid topographic survey of the area shown on your attached drawing Figure 1.

Specifically, we will establish control points with XY&Z coordinates, survey and map all trees including size and species, all natural and manmade topographic features within the survey limits, and obtain grade elevations at 50' intervals. Utilizing GPS technology, we will survey the drainage structures, obtain pipe sizes, shape, type material and invert elevations where access is possible. Soft shots will be measured to 0.10' and hard shots, excepting drainage structures, will be measured to 0.01'. The horizontal datum will be NAD 83/2011 adjustment and the vertical datum will be NAVD88.

Our fee to perform the services described above will be a LUMP SUM fee of **\$19,958.25**.

**MANHOUR BREAKDOWN AND FEES**


3-Person Crew	64 hours	x	\$152.50/hour	=	\$ 9,760.00
Survey Project Manager	12 hours	x	\$200.00/hour	=	\$ 2,400.00
Project Surveyor/Cad Technician	52 hours	x	\$104.25/hour	=	\$ 5,421.00
Administration	3 hours	x	\$ 93.75/hour	=	\$ 281.25
Expenses	8 days	x	\$262.00/day	=	<u>\$ 2,096.00</u>
<b>Total</b>					<b>\$19,958.25</b>

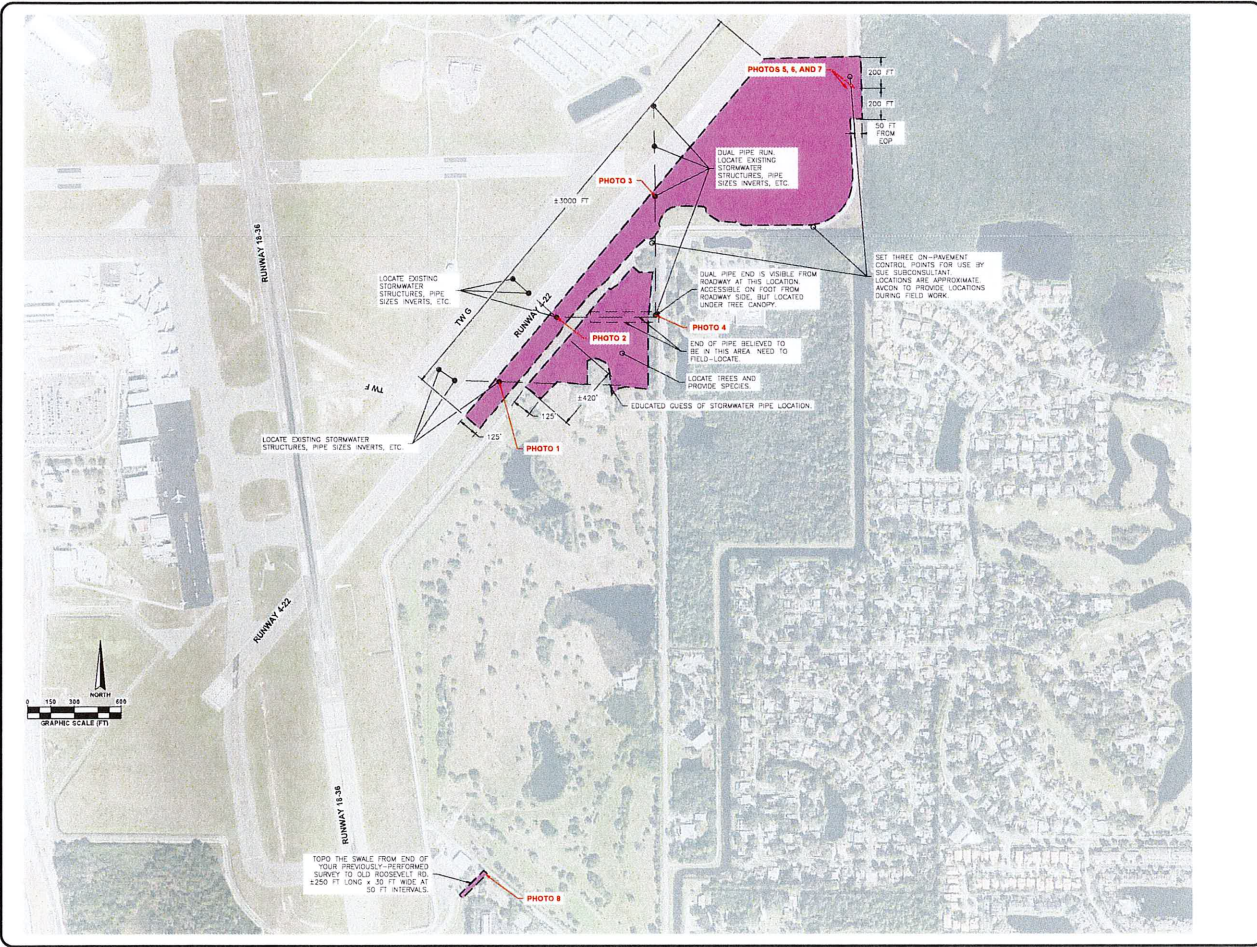
We will require 3 weeks from your notice to proceed date to complete the survey and submit an Autocad Civil 3D file, along with digitally signed hard copy maps.

All of the work will be performed under the direct supervision of a Professional Land Surveyor and will meet or exceed the Standards of Practice as set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 5J17.050 to 5J17.052, Florida Administrative Code, pursuant to Section 472.027 Florida Statutes.

If you have any questions, please do not hesitate to contact our office.

Sincerely,  
**NORTHWEST SURVEYING, INC.**

  
 Gerald Silva, PSM  
 President



AVCON, INC.  
CIVIL ENGINEERS & PLANNERS  
1000 10th Street, Suite 100, Clearwater, FL 34616  
TEL: 781-281-1111 FAX: 781-281-1112  
WWW.AVCONINC.COM

The firm has not performed a geotechnical study by or for the client.

This document is the property of AVCON, INC. and shall remain the property of AVCON, INC. It is not to be used for any other purpose without the written consent of AVCON, INC.

PROFESSIONAL SEAL

**NEW AIRCO TAXIWAYS**

**ST. PETE-CLEARWATER INTERNATIONAL AIRPORT**  
CLEARWATER, FLORIDA

**ADDITIONAL SURVEY SCOPE**

ATTENTION  
THIS DOCUMENT IS THE PROPERTY OF AVCON, INC. AND SHALL REMAIN THE PROPERTY OF AVCON, INC. IT IS NOT TO BE USED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF AVCON, INC.

SCALE (US SVY FT): GRAPHIC

REVISIONS:			
NO.	DATE	BY	DESCRIPTION

DESIGNED BY:  
DRAWN BY:  
CHECKED BY:  
APPROVED BY: SS  
DATE: DECEMBER 2023

ISSUED FOR PERMITTING  
FAA AIP NO. -  
FDOT FM NO. -  
AVCON PROJECT NO. 2021.151.02  
CADD FILE NAME: 15102\_20240409\_SURV\_REG

**DRAWING**  
**FIG 1**



# TIERRA

April 15, 2024

Avcon, Inc.  
5550 W Idlewild Ave., Ste 102  
Tampa, FL 33634

Attn: Mr. Michael Coppage, P.E.

**RE: Scope for Geotechnical Services  
St. Pete-Clearwater International Airport  
AirCo Taxiway – Drainage Improvements  
Pinellas County, Florida  
Tierra Project No: 6511-21-297**

Mr. Coppage:

Tierra, Inc. appreciates the opportunity to present the scope herein. This scope is based on information provided and our understanding of the project.

## **Project Description**

The project consists of capital improvements to the St. Pete-Clearwater International Airport (PIE) in Pinellas County. The project primarily consists of designing and constructing a new "AirCo" taxiway on the east side of Runways 18-36 and 4-22. Tierra has provided geotechnical reports supporting the improvements under Tierra project number 6511-21-297. This proposal has been developed to provide additional drainage support for the project.

Based on a review of aerial photography and our previous experience with this project, we anticipate the project area will be accessible to our field equipment following coordination and scheduling with AVCON and the airport. Tierra understands that AVCON will provide escort, if needed.

## **Geotechnical - Scope of Services**

Based on our understanding of the project, the following scope of services is anticipated:

1. Mobilize personnel and equipment to the site. Coordinate utility clearances through Sunshine One Call and the airport.
2. Perform a subsurface exploration program consisting of the following:
  - a. Design of Pond Expansion Site
    - i. Perform six (6) hand auger borings along the proposed swale and pond area to a depth of 5 feet below grade to estimate the Seasonal High Groundwater Table (SHGWT).
    - ii. Perform field permeability testing at three (3) locations to aid in the drainage design.
    - iii. Determine soil types encountered within the borings and identify its potential for reuse as project backfill.
    - iv. Perform two (2) pavement cores to measure and identify existing pavement sections, at the requested locations. Perform a hand auger boring at each core location to a depth of 5 feet.
3. Measure and record groundwater levels following completion of each boring.

4. Visually classify the samples in accordance with the Unified Soil Classification System (USCS) soil classification system.
5. Conduct laboratory testing on select soil samples to confirm the visual classification and estimate engineering properties.
6. Prepare a geotechnical report signed and sealed by a professional geotechnical engineer that summarizes the course of study pursued, the field data generated, laboratory test results, subsurface conditions encountered and our engineering recommendations in accordance with the scope of services presented herein.

#### Estimated Fees

The estimated fee to perform the above outlined scope of services for the project is **\$5,938.00** as outlined in the attached fee schedule. We will provide you with verbal results and immediately notify you should conditions impacting our scope, schedule or cost of services occur.

#### Closure

We appreciate the opportunity to offer our services to you. Should you have any questions regarding this proposal, please do not hesitate to contact our office.

Respectfully Submitted,

**TIERRA, INC.**



Daniel R. Ruel, PE  
Geotechnical Engineer



Kevin H. Scott, PE  
Senior Geotechnical Engineer

Item Description	Unit	Unit Price	Quantity	Total
<b>Geotechnical Field Investigation</b>				
401-Geo Auger Borings- Hand & Truck/Mud Bug	LF	\$ 10.00	40	\$ 400.00
402-Geo Auger Borings- Track	LF	\$ 12.00		\$ -
403-Geo Backhoe (Owned)	Day	\$ 600.00		\$ -
405-Geo Barge (Owned)	Day	\$ 2,500.00		\$ -
407-Geo Chainsaw (Owned)	Day	\$ 28.00		\$ -
415-Geo Double Ring Infiltration (ASTM D3385)	Each	\$ 525.00		\$ -
416-Geo Dozer (Owned)	Day	\$ 800.00		\$ -
418-Geo Drill Crew Support Vehicle	Day	\$ 160.00	1	\$ 160.00
531-Geo Truck/Mudbug Drill Rig and Crew (2-Person)	Hour	\$ 135.00		\$ -
Site Clearing to Access Boring or Test Locations	Hour	\$ 210.00		\$ -
532-Geo Truck/Mudbug Drill Rig and Crew (3-Person)	Hour	\$ 185.00		\$ -
421-Geo Dynamic Pile Testing/Pile Driving Analysis	Day	\$ 1,700.00		\$ -
422-Geo Extra SPT Samples-Barge/Track/Amphibious 000-050 Ft	Each	\$ 71.00		\$ -
423-Geo Extra SPT Samples-Barge/Track/Amphibious 050-100 Ft	Each	\$ 71.00		\$ -
424-Geo Extra SPT Samples-Barge/Track/Amphibious 100-150 Ft	Each	\$ 85.00		\$ -
425-Geo Extra SPT Samples-Barge/Track/Amphibious 150-200 Ft	Each	\$ 85.00		\$ -
427-Geo Extra SPT Samples-Truck/Mud Bug 000-050 Ft	Each	\$ 71.00		\$ -
428-Geo Extra SPT Samples-Truck/Mud Bug 050-100 Ft	Each	\$ 71.00		\$ -
429-Geo Extra SPT Samples-Truck/Mud Bug 100-150 Ft	Each	\$ 85.00		\$ -
430-Geo Extra SPT Samples-Truck/Mud Bug 150-200 Ft	Each	\$ 85.00		\$ -
432-Geo Field Permeability 0-10 Ft (Open - End Borehole Method)	Each	\$ 310.00	3	\$ 930.00
434-Geo Ground Penetrating Radar (GPR)	Hour	\$ 350.00		\$ -
435-Geo Grout Boreholes- Barge/Track/Amphibious 000-050 Ft	LF	\$ 8.50		\$ -
436-Geo Grout Boreholes- Barge/Track/Amphibious 050-100 Ft	LF	\$ 11.00		\$ -
437-Geo Grout Boreholes- Barge/Track/Amphibious 100-150 Ft	LF	\$ 17.00		\$ -
438-Geo Grout Boreholes- Barge/Track/Amphibious 150-200 Ft	LF	\$ 25.00		\$ -
Geo Grout Boreholes- Truck 0-050 Ft	LF	\$ 5.00		\$ -
Geo Grout Boreholes- Truck 50-100 Ft	LF	\$ 7.00		\$ -
Geo Grout Boreholes- Truck 100-150 Ft	LF	\$ 10.00		\$ -
Geo Grout Boreholes- Truck 150-200 Ft	LF	\$ 14.00		\$ -
440-Geo Grout Boreholes- Truck/Mud Bug 000-050 Ft	LF	\$ 6.00		\$ -
441-Geo Grout Boreholes- Truck/Mud Bug 050-100 Ft	LF	\$ 8.00		\$ -
442-Geo Grout Boreholes- Truck/Mud Bug 100-150 Ft	LF	\$ 13.00		\$ -
443-Geo Grout Boreholes- Truck/Mud Bug 150-200 Ft	LF	\$ 18.00		\$ -
445-Geo Grouted Monitor Well 2" 000-050 Ft	LF	\$ 28.00		\$ -
450-Geo Piezometer 2" 000-050 Ft	LF	\$ 44.00		\$ -
453-Geo Rock Coring Barge/Track/Amphibious 000-050 Ft less than 4" ID	LF	\$ 52.00		\$ -
455-Geo Rock Coring Barge/Track/Amphibious 050-100 Ft less than 4" ID	LF	\$ 68.00		\$ -
457-Geo Rock Coring Barge/Track/Amphibious 100-150 Ft less than 4" ID	LF	\$ 85.00		\$ -
459-Geo Rock Coring Barge/Track/Amphibious 150-200 Ft less than 4" ID	LF	\$ 94.00		\$ -
463-Geo Rock Coring Truck/Mud Bug 000-050 Ft less than 4" ID	LF	\$ 45.00		\$ -
465-Geo Rock Coring Truck/Mud Bug 050-100 Ft less than 4" ID	LF	\$ 52.00		\$ -
467-Geo Rock Coring Truck/Mud Bug 100-150 Ft less than 4" ID	LF	\$ 60.00		\$ -

Item Description	Unit	Unit Price	Quantity	Total
473-Geo SPT Barge/Track/Amphibious 000-050 Ft	LF	\$ 21.00		\$ -
474-Geo SPT Barge/Track/Amphibious 050-100 Ft	LF	\$ 28.00		\$ -
475-Geo SPT Barge/Track/Amphibious 100-150 Ft	LF	\$ 53.00		\$ -
476-Geo SPT Barge/Track/Amphibious 150-200 Ft	LF	\$ 70.00		\$ -
Geo SPT Truck 0-50 Ft	LF	\$ 12.00		\$ -
Geo SPT Truck 50-100 Ft	LF	\$ 17.00		\$ -
Geo SPT Truck 100-150 Ft	LF	\$ 31.00		\$ -
Geo SPT Truck 150-200 Ft	LF	\$ 39.00		\$ -
478-Geo SPT Truck-Mud Bug 0-50 Ft	LF	\$ 15.00		\$ -
479-Geo SPT Truck-Mud Bug 50-100 Ft	LF	\$ 18.00		\$ -
480-Geo SPT Truck-Mud Bug 100-150 Ft	LF	\$ 32.00		\$ -
481-Geo SPT Truck-Mud Bug 150-200 Ft	LF	\$ 42.00		\$ -
483-Geo Temp Casing 3' Barge/Track/Amphibious 0-050 Ft	LF	\$ 14.00		\$ -
484-Geo Temp Casing 3' Barge/Track/Amphibious 50-100 Ft	LF	\$ 17.00		\$ -
485-Geo Temp Casing 3' Barge/Track/Amphibious 100-150 Ft	LF	\$ 20.00		\$ -
486-Geo Temp Casing 3' Barge/Track/Amphibious 150-200 Ft	LF	\$ 25.00		\$ -
Geo Temp Casing 3" Truck 0-050 Ft	LF	\$ 8.00		\$ -
Geo Temp Casing 3" Truck 50-100 Ft	LF	\$ 10.00		\$ -
Geo Temp Casing 3" Truck 100-150 Ft	LF	\$ 12.00		\$ -
Geo Temp Casing 3" Truck 150-200 Ft	LF	\$ 15.00		\$ -
488-Geo Temp Casing 3" Truck/Mud Bug 000-050 Ft	LF	\$ 10.00		\$ -
489-Geo Temp Casing 3" Truck/Mud Bug 050-100 Ft	LF	\$ 14.00		\$ -
490-Geo Temp Casing 3" Truck/Mud Bug 100-150 Ft	LF	\$ 17.00		\$ -
491-Geo Temp Casing 3" Truck/Mud Bug 150-200 Ft	LF	\$ 22.00		\$ -
515-Geo Undisturbed Samples Barge/Track/Amphibious 000-050 Ft	Each	\$ 200.00		\$ -
516-Geo Undisturbed Samples Barge/Track/Amphibious 050-100 Ft	Each	\$ 200.00		\$ -
517-Geo Undisturbed Samples Barge/Track/Amphibious 100-150 Ft	Each	\$ 200.00		\$ -
518-Geo Undisturbed Samples Barge/Track/Amphibious 150-200 Ft	Each	\$ 200.00		\$ -
519-Geo Undisturbed Samples Truck/Mud Bug 000-050 Ft	Each	\$ 200.00		\$ -
520-Geo Undisturbed Samples Truck/Mud Bug 050-100 Ft	Each	\$ 200.00		\$ -
521-Geo Undisturbed Samples Truck/Mud Bug 100-150 Ft	Each	\$ 200.00		\$ -
522-Geo Undisturbed Samples Truck/Mud Bug 150-200 Ft	Each	\$ 200.00		\$ -
523-Geo Vibration & Noise Monitoring	Day	\$ 900.00		\$ -
524-Geo Vibration Monitoring	Day	\$ 1,000.00		\$ -
525-Geo Well Development	Hour	\$ 140.00		\$ -
609-Geo Mobilization Drill Rig Barge Mount	Each	\$ 7,500.00		\$ -
610-Geo Mobilization Drill Rig Truck Mount	Each	\$ 3,250.00		\$ -
612-Geo Mobilization Drill Rig Truck Mount	Each	\$ 410.00		\$ -
614-Geo Mobilization Mudbug/All Terrain Vehicle	Each	\$ 700.00		\$ -
615-Mobilization Pile Driving Analyzer Equipment	Each	\$ 345.00		\$ -
618.1-Geo Support Safety Boat	Day	\$ 500.00		\$ -
618-Geo Mobilization Support Boat	Each	\$ 500.00		\$ -
619-Geo Mobilization Tri-Pod	Each	\$ 1,250.00		\$ -
Flagman and Barricades 2-Man Crew Own Equipment	Day	\$ 1,080.00		\$ -
701-MOT Attenuator Truck	Hour	\$ 340.00		\$ -

Tierra, Inc. Fee Schedule

Item Description	Unit	Unit Price	Quantity	Total
702-MOT Channelizing Devices - Type I, II, VP, Drum (each)	Each	\$ 5.00		\$ -
706-MOT Portable Sign	Each	\$ 30.00		\$ -
708-MOT Provide Channelizing Devices - Cone	Each	\$ 5.00		\$ -
710-MOT Shadow Vhcle w/ Adv. Warning Arrow & Attenuator	Hour	\$ 280.00		\$ -
712-MOT Support Vehicle	Hour	\$ 155.00		\$ -
Drilling Permit Costs IE DEP	Each	\$ 250.00		\$ -
<b>Geotechnical Laboratory Testing</b>				\$ -
101-Aggregate Carbonates & Organic Matter FM 5-514	Test	\$ 100.00		\$ -
102-Aggregate Org. Impurities S& for Concrete AASHTO T21	Test	\$ 45.00		\$ -
103-Aggregate Shell Content of Coarse Aggregate FM 5-555	Test	\$ 60.00		\$ -
104-Aggregate Sieve Anlsys of Fine & Coarse AASHTO T27	Test	\$ 60.00		\$ -
105-Aggregate Soundness AASHTO T104	Test	\$ 300.00		\$ -
106-Aggregate Specific Gravity/Absorption Coarse AASHTO T85	Test	\$ 88.00		\$ -
107-Aggregate Total Moisture Content by Drying AASHTO T255	Test	\$ 35.00		\$ -
108-Aggregate Unit Mass & Voids AASHTO T19	Test	\$ 55.00		\$ -
109-Aggregate Specific Gravity/Absorption Fine AASHTO T84	Test	\$ 89.00		\$ -
200-Asphalt Bulk Specific Gravity FM 1-T166	Test	\$ 50.00		\$ -
201-Asphalt Content FM 5-563	Test	\$ 145.00		\$ -
204-Asphalt Gradation FM 1-T030	Test	\$ 75.00		\$ -
206-Asphalt Los Angeles (LA) Abrasion Coarse Agg FM 3-C535	Test	\$ 310.00		\$ -
207-Asphalt Los Angeles (LA) Abrasion Small Agg FM 1-T096	Test	\$ 297.00		\$ -
800-Soils Chloride Soil or Water (FM 5-552)	Test	\$ 110.00		\$ -
803-Soils Consolidation - Constant Strain (ASTM D4186)	Test	\$ 580.00		\$ -
804-Soils Consolidation - Extended Load Increments (AASHTO T216)	Test	\$ 50.00		\$ -
805-Soils Corrosion Series (FM 5-550 through 5-553)	Test	\$ 305.00		\$ -
806-Soils Direct Shear Consolidated Drained/ Point AASHTO T 236	Test	\$ 250.00		\$ -
810-Soils Limerock Bearing Ratio (LBR)(FM 5-515)/CBR	Test	\$ 340.00		\$ -
811-Soils Liquid Limit (AASHTO T 89)	Test	\$ 60.00		\$ -
812-Soils Materials Finer than 200 Sieve (FM 1-T011)	Test	\$ 42.00		\$ -
817-Soils Moisture Content Laboratory (AASHTO T 265)	Test	\$ 10.00		\$ -
819-Soils Organic Content Ignition (FM 1 T-267)	Test	\$ 42.00		\$ -
821-Soils Particle Size Analysis (AASHTO T 88) (Including Hydrometer)	Test	\$ 131.00		\$ -
822-Soils Particle Size Analysis (AASHTO T 88) (No Hydrometer)	Test	\$ 67.00		\$ -
823-Soils Permeability Constant Head (AASHTO T 215)	Test	\$ 225.00		\$ -
824-Soils Permeability Falling Head (FM 5-513)	Test	\$ 225.00		\$ -
825-Soils pH Soil or Water (FM 5-550)	Test	\$ 35.00		\$ -
826-Soils Plastic Limit & Plasticity Index (AASHTO T 90)	Test	\$ 70.00		\$ -
827-Soils Proctor Modified (FM 1-T 180)	Test	\$ 115.00		\$ -
828-Soils Proctor Standard (AASHTO T 99)	Test	\$ 111.00		\$ -
829-Soils Resistivity Soil or Water (FM 5-551)	Test	\$ 46.00		\$ -
832-Soils Splitting Tensile Strength of Rock Cores (ASTM D3967)	Test	\$ 138.00		\$ -
833-Soils Sulfate Soil or Water (FM 5-553)	Test	\$ 110.00		\$ -
838-Soils Unconfined Compression - Rock (ASTM D7012, Method C)	Test	\$ 138.00		\$ -

Item Description	Unit	Unit Price	Quantity	Total
<b>Contamination Test Units</b>				\$ -
EDR Report	Each	\$ 500.00		\$ -
Organic Vapor Analyzer (OVA)	Day	\$ 150.00		\$ -
Handheld GPS	Per Day	\$ 80.00		\$ -
Field Sampling Kit (soil)	Each	\$ 75.00		\$ -
Field Sampling Survey Kit (water)	Each	\$ 75.00		\$ -
Power Auger Boring (includes decontamination to a depth of 25 feet)	Foot	\$ 11.00		\$ -
BTEX and MTBE (Method 8260)	Each	\$ 65.00		\$ -
Organochlorine Pesticides (Method 8081)	Each	\$ 100.00		\$ -
Organophosphorous Pesticides (Method 8141)	Each	\$ 125.00		\$ -
Chlorinated Herbicides (Method 8151)	Each	\$ 100.00		\$ -
Volatile Organics (Method 8260)	Each	\$ 95.00		\$ -
Volatile Organics BTEX/MTBE(Method 8260)	Each	\$ 60.00		\$ -
Semi-Volatiles (Method 8270)	Each	\$ 200.00		\$ -
Polyaromatic Hydrocarbons (Method 8270)	Each	\$ 100.00		\$ -
TPH Method FL-Pro	Each	\$ 65.00		\$ -
RCRA 8 Metals (Method 6010/7471)	Each	\$ 65.00		\$ -
RCRA Metals Individual (Method 6010/7471)	Each	\$ 9.00		\$ -
Mercury Individual (Method 6010/7471)	Each	\$ 25.00		\$ -
Ultr Low Trace Mercury GW Individual (Method 1631)	Each	\$ 75.00		\$ -
Arsenic (Method 6010/7471)	Each	\$ 9.00		\$ -
SPLP/TCLP Metals	Each	\$ 198.00		\$ -
Asbestos Samples	Each	\$ 15.00		\$ -
Polychlorinated Biphenals (8082)	Each	\$ 75.00		\$ -
<b>Asphalt and Concrete Pavement Coring</b>				\$ -
209-Asphalt Pavement Coring – 4" dia with Base Depth Check	Each	\$ 250.00	2	\$ 500.00
210-Asphalt Pavement Coring – 4" dia without Base Depth Check	Each	\$ 200.00		\$ -
211-Asphalt Pavement Coring – 6" dia with Base Depth Check	Each	\$ 275.00		\$ -
212-Asphalt Pavement Coring – 6" dia without Base Depth Check	Each	\$ 225.00		\$ -
300-Concrete Beam Flexural Testing ASTM C78	Test	\$ 50.00		\$ -
301-Concrete Compressive Strength of Grout / Mortar ASTM C109	Test	\$ 40.00		\$ -
302-Concrete Cylinder Curing, Capping & Breaking ASTM C39	Test	\$ 40.00		\$ -
303-Concrete Drilled Cores & Sawed Beams ASTM C42	Test	\$ 40.00		\$ -
305-Concrete Pavement Coring - 4" Dia	Each	\$ 200.00		\$ -
306-Concrete Pavement Coring - 6" Dia	Each	\$ 225.00		\$ -
603-Mobilization Asphalt Coring equipment	Each	\$ 300.00	2	\$ 600.00
606-Mobilization Concrete Coring	Each	\$ 300.00		\$ -
<b>Engineering and Technical Support Services</b>				\$ -
MAT Chief Engineer	Hour	\$ 219.00		\$ -
Chief Scientist	Hour	\$ 175.00		\$ -
MAT Engineer	Hour	\$ 138.00	8	\$ 1,104.00
MAT Engineering Intern	Hour	\$ 98.00		\$ -
MAT Engineering Technician	Hour	\$ 84.00	8	\$ 672.00
MAT Principal Engineer	Hour	\$ 219.00	4	\$ 876.00
MAT Secretary / Clerical	Hour	\$ 77.00		\$ -
MAT Senior Engineer	Hour	\$ 193.00		\$ -
MAT Senior Engineering Technician	Hour	\$ 102.00	2	\$ 204.00
Senior Designer	Hour	\$ 123.00	4	\$ 492.00
Senior Scientist	Hour	\$ 147.00		\$ -

**Engineering and Laboratory Services = \$ 5,938.00**



UTILITY ENGINEERING & SURVEY  
**ECHO UES, Inc.**

4803 George Rd., Suite 350

Tampa, Florida 33634

888.778.ECHO

*Grow, Inspire, Make a Difference*

April 15, 2024

Michael Coppage, PE  
Project Manager – Airports  
AVCON, INC.  
5110 Sunforest Dr., Ste 140  
Tampa, FL 33634

## **PROPOSAL FOR SUBSURFACE UTILITY INVESTIGATION SERVICES**

### **Project: PIE New Airco Taxiways – Additional SUE (Part 2)**

Dear Mr. Coppage:

At ECHO UES, Inc. (ECHO) we value your consideration and appreciate the opportunity to provide a technical proposal for the provision of professional services. This technical proposal, inclusive of the proposed fee and schedule, details the approach we consider the most suitable for your specific project's needs.

**Project Limits:** ECHO's proposed services will be performed within a well-defined area as shown on the attached graphic representation (Exhibit A). Services provided within said limits will consist of marking the horizontal location of utilities (designating), determining the vertical location of utilities (locating) at select locations, and survey & mapping of the designated and located underground utilities, ultimately resulting in a 2/D AutoCAD Civil 3D electronic file. Inverts of select stormwater pipes will also be provided.

**Subsurface Underground Utility Investigation Services Description:** Using a combination of field investigative techniques and technology, including surface geophysical instruments (as needed to support the mapping) and vacuum excavation, ECHO will perform the following services.

- ECHO will **identify and horizontally delineate the existing utilities and select stormwater pipe inverts** located within the limits identified in attached Exhibit A. The results will be marked on the ground surface using the most appropriate method (i.e. pin flags, paint etc.) and showing the approximate position of the identified utilities and pipes.

***Utilities that ECHO will attempt to identify, and mark are utilities located within the project limits, with the exclusion of small irrigation lines and non-conductive water services.***

- ECHO will **verify the vertical location and characteristics of the underground utilities** at specific locations (specified by AVCON). ECHO will attempt to expose utilities and stormwater pipe inverts via minimally intrusive methods (e.g., use of vacuum excavation) to address potential utility conflicts with the proposed construction and confirm the utilities' characteristics (e.g., type, size, material, direction, configuration) and provide an accurate vertical location. At completion of each excavation (test hole) ECHO will record all verifiable utility information, mark the utility location with the most appropriate method (e.g., wooden lathes, "X" mark on concrete, disc, and nail on asphalt) and restore the field to as close as possible to its original conditions. **There are sixteen (16) test holes anticipated to be performed.**
  
- ECHO will **survey all utility and select stormwater pipe invert information** discovered during the steps outlined above. The surveyed utilities and pipes will be tied to a design control survey provided by AVCON's surveyor of record.

**Deliverables:**

- SUE Field deliverables will consist of field marks (e.g., pin flags, paint marks, wooden lathes, nails/discs etc.) showing the position of the test holes and located utilities.
- Test hole data report (THDR) containing all the information obtained via test holes and visual verification.
- 2/D AutoCAD Civil 3D electronic file.

**Proposed Schedule:** To be discussed and agreed to upon receipt of the executed contract.

**Notes and Limitations:**

1. Client shall facilitate access to the site and provide any relevant project information.
2. Site must be clear of obstacles impeding access to any portion of the project limits.
3. Standard work hours are from 7:00am to 3:30pm, Monday through Friday. Additional charges may occur (following discussion with the Client) in case of weekend or nighttime work.
4. ECHO will not work on any site that is known to be contaminated with any hazardous or harmful substance.
5. Unless otherwise stated within this proposal, test holes have usual depth of up to eight (8) ft. from the ground surface, and diameter of up to 1 ft. Should there be a need for deeper or wider excavations, additional charges may apply.
6. The original ground surface at each test hole location will be restored to as close as possible to its original condition, using concrete mix or asphalt cold patch as applicable. Any deviation from this standard (e.g. use of hot asphalt, flowable fill etc.) may require additional charges and the use of specialty subcontractors.
7. Regardless of the type of estimate proposed (e.g. lump sum, time and materials, etc.) such an estimate should be considered indicative and based on preliminary information. Should any situation out of ECHO's control heavily impact on ECHO's field work performance (e.g. adverse site conditions), ECHO reserves the right to seek additional funds to complete the work.
8. The exact location of any underground utility is not guaranteed unless clearly exposed and visually verified at a specific location. Utility characteristics, methods of installation, soil conditions and the surrounding environment all may impact adversely the results of any utility investigation with surface geophysical instruments and technology. No guarantee is made that all utilities will be found and identified.
9. Independently from ECHO's scope of work and performance, the Client shall comply with the relative chapter from the Florida (or any other applicable) Statutes: "Underground Facility Damage Prevention and Safety Act" and call 811 prior to any excavation taking place.



10. Subsurface Utility Engineering, Designating and Locating terms all refer to the American Society of Civil Engineers / Construction Institute Standard for the Collection and Depiction of Subsurface Utility Data (ASCE/CI 38-02). Should ECHO adopt this standard for the performance of the scope of work and preparation of deliverables, clear mention to the Standard shall be made throughout the deliverable.

**Fee:** Based on previous experience on similar projects our estimate to complete the above-described professional services is:

- Designate, Locate, and Survey Utilities and select stormwater pipes within Exhibit A defined limits, create utility map Limiting Amount (LA)
  - **New Airco Taxiways = \$18,639.00**

At ECHO UES, Inc. we believe in collaboration and communication with our clients and are driven to understand their needs and provide time-effective and cost-effective solutions.

Thank you for considering ECHO for your project. Please do not hesitate to contact me directly should you have any questions or concerns.

Sincerely,

**ECHO UES, Inc.**



Jerry Comellas, Jr., PE  
President

**SEE EXHIBIT A (Below)**









Labor/Fee Estimate Summary - CONSULTANT (ECHO UES, Inc.) - PIE New Airco Taxiways\_Add1 SUE (Part 2)

<b>Billing Rate:</b>	\$ 163.00	\$ 172.00	\$ 107.00	\$ 76.00	\$ 166.00	\$ 178.00
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Fee Estimate (\$)

Task Description	Project Manager	Senior Surveyor (PSM)	Project Surveyor (PSM)	Survey/SUE/CADD Technician	SUE Designating/Locating Crew (2-Person)	Survey Crew (3-Person)	Total	Labor	Expenses	Total	
<b>SUE SERVICES (NTE LABOR + EXPENSES)</b>	<b>Total</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>17</b>	<b>60</b>	<b>30</b>	<b>121</b>	<b>\$18,639.00</b>	<b>\$0.00</b>	<b>\$18,639.00</b>
Subsurface Utility Engineering (SUE) – Horizontal Locates	2	2	2	8	40		54	\$8,132.00		\$8,132.00	
Subsurface Utility Engineering (SUE) – Vertical Locates	1	1	1	4	20		27	\$4,065.00		\$4,065.00	
Survey to support the SUE (Horizontal)		1	1	1		10	13	\$2,135.00		\$2,135.00	
Survey to support the SUE (Vertical) and Stormwater Pipe Inverts	1	1	1	4		20	27	\$4,305.00		\$4,305.00	
							0	\$0.00		\$0.00	
							0	\$0.00		\$0.00	
	<b>4</b>	<b>5</b>	<b>5</b>	<b>17</b>	<b>60</b>	<b>30</b>	<b>121</b>				
<b>Total Fee - ECHO UES, Inc.</b>	<b>\$652.00</b>	<b>\$860.00</b>	<b>\$535.00</b>	<b>\$1,292.00</b>	<b>\$9,960.00</b>	<b>\$5,340.00</b>		<b>\$18,639.00</b>	<b>\$0.00</b>	<b>\$18,639.00</b>	

Total Fee - ECHO UES, Inc.

April 15, 2024

AVCON  
 4500 140<sup>th</sup> Avenue North  
 Clearwater, Florida 33762

Attn: Michael Coppage, P.E.  
 Senior Project Manager

**Re: PIE – Partial Taxiway D**

Dear Mr. Coppage:

This is a proposal for an updated service agreement for the role of assisting AVCON with negotiations and stormwater permitting with Pinellas County Staff. It is our understanding that the drainage system for the Taxiway D project area and the adjoining Airport drainage basins will be re-routed to Tampa Bay in response to comments from Pinellas County. Therefore, revised water quality calculations are needed for approval of the project.

Staff time estimates are as follows:

**Revised Taxiway D Analysis**

John Landon, P.E.	8 hours @ \$225	\$ 1,800
Jeff Leadbetter, P.E.	50 hours @ \$160	\$ 8,000
Administrative	5 hours @ \$ 75	\$ 375
Mileage/Direct Expenses		\$ 600
<b>Sub-Total</b>		<b><u>\$10,775</u></b>

**Airport Drainage / Basin Reroute Analysis**

John Landon, P.E.	12 hours @ \$225	\$ 2,700
Jeff Leadbetter, P.E.	70 hours @ \$160	\$11,200
Administrative	8 hours @ \$ 75	\$ 600
Mileage/Direct Expenses		\$ 600
<b>Sub-Total</b>		<b><u>\$15,100</u></b>

Please note that since the scope for the "Airport Drainage / Basin Reroute Analysis" task is not fully defined at this point, the estimate for this task should be considered approximate.

**Total** **\$25,875**

If you have any questions, please do not hesitate to call me.

**LANDON, MOREE & ASSOCIATES, INC.**

John C. Landon, P.E.



April 12, 2024

Michael Coppage  
Avcon, Inc  
5550 W. Idlewild Ave., Ste 102  
Tampa, FL 33634

RE: Letter Agreement for St. Pete-Clearwater International Airport (PIE) – Airco Taxiway Extension

Dear Mr. Coppage,

On behalf of Taylor Engineering (“Taylor”), I am pleased to provide this letter agreement (“Agreement”) to Avcon, Inc. (“Client”) for the above referenced project. We have developed the scope of work for this Agreement based on our understanding of the project as follows.

Taylor will provide stormwater engineering support to Client for the above referenced project. The role is understood to be an advisory role without any direct deliverables. Taylor will perform the following tasks, but other tasks may be requested up to the fee limit as declared under CONTRACT PRICE AND TERMS.

Biweekly design meetings through design phase. Pre-application and agency coordination meetings with Pinellas County and SWFWMD. Limited calculations or modeling. Taylor does not anticipate the need for a FEMA flood map revision for this project. If required, Taylor can perform this work for additional cost.

If for any reason our understanding of the project, as set forth above, is incorrect in any respect, please let us know before executing this Agreement. Your execution of this Agreement will confirm that the facts set forth above are correct. If any of the facts set forth above are not correct, and that results in any changes in the work, then Taylor shall be entitled to additional compensation for any additional work that is required. **Attachment A** provides tasks and subtasks with a brief description, purpose, cost, assumptions, and schedule for this scope of work.

### SCOPE OF SERVICES

Our proposed scope of services consists of the following:

- Task 1 Stormwater Design Support
  - Biweekly Meetings
  - Agency Coordination
  - Limited calculations or modeling

PIE Airport Airco Taxiway Extension

Page 1 of 4



### **DELIVERABLES**

- None.

### **SCHEDULE**

We can begin work on this project immediately upon receipt of your execution of this Agreement. The following task durations are anticipated:

- Stormwater Design Support– 9 months

### **ADDITIONAL SERVICES**

No additional services shall be provided, beyond the scope of work set forth above, without a written amendment to this Agreement signed by both parties.

### **SPECIFIC EXCLUSIONS FROM SCOPE OF WORK**

The above scope of work expressly, but without limitation, excludes the following:

Taylor Engineering will obtain no permits under this scope of work.  
Taylor Engineering will not perform FEMA map revisions under this scope of work.

### **CLIENT'S RESPONSIBILITIES**

Client shall provide Taylor with the following information and documents:

- None.

### **CONTRACT PRICE AND TERMS**

Taylor will perform the above-described scope of services for a time and materials fee of \$26,374.

TAYLOR ENGINEERING, INC.  
 COST SUMMARY BY TASK  
 C2024-063: PIE AIRPORT - AIRCO TAXIWAY EXTENSION

**TASK 1: Stormwater Design Support**

<i>Labor</i>	Hourly Rate	Hours	Burdened Cost	Task Totals
Principal	\$281.00	4.0	1,124.00	
Senior Professional	\$202.00	125.0	25,250.00	
Total Labor Hours		129.0		
Total Labor Cost				26,374.00

**Total Task 1** **\$26,374.00**

**Project Total** **\$26,374.00**



# **SCOPE OF SERVICES**

## **AIRCO TAXIWAY PERMIT MODIFICATION SUPPORT**

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### **St Pete Clearwater International Airport (PIE)**

#### **Task 1 – Environmental Support**

The following tasks are anticipated to be completed by ESA to provide environmental support for the Airco Taxiway design and permitting project at PIE. Support will be provided on an “as needed” basis up to the not-to-exceed limits for each task.

##### **Permit Modification Support**

ESA will compile a summary memo discussing the site review observations, other geographical information system (GIS) data evaluated and environmental considerations in support of the SWFWMD environmental resource permit modification (ERP). ESA will assist AVCON with the relevant ERP application sections (environmental write-ups and data).

It is expected that if mitigation is required that mitigation can be accomplished “in situ” and that no additional onsite or offsite mitigation will be required. ESA will develop an in situ planting and maintenance plan as part of the ERP modification. It should be acknowledged that it is possible that SWFWMD could require up to five (5) years of post-construction maintenance and monitoring of the pond vegetation as a permit condition. In addition, an ESA FAA Qualified Wildlife Biologist will develop a memo detailing their review of the proposed pond modifications for consistency with the PIE WHMP.

##### **Agency Site Review and Coordination**

It is understood that a site review with one or both agencies (SWFWMD and USACE) will be required. ESA will conduct up to two (2) site reviews as these two agencies do not review wetlands concurrently.

##### **Response to Request for Additional Information (RAI) Support**

ESA will provide support to up to one (1) RAI from SWFWMD. It is expected that mitigation for impacts to wetlands (other than previously discussed for the pond expansion) will not be required. However, if mitigation is required by SWFWMD or USACE it is anticipated that it would be completed at a permitted mitigation bank. Development of an onsite or offsite mitigation plan (outside the existing pond) is not included in this estimate.



### **USACE Coordination and Section 404 Permit**

It is possible that USACE could assert jurisdiction over one or more of the OSWs onsite. If a permit is required, ESA would develop those permit application materials. If mitigation is required, it is expected that it would be completed “in situ” for the pond expansion (consistent with the SWFWMD proposal) or at a permitted mitigation bank for any additional mitigation required.

### **Considerations**

- Does not include land survey or listed species surveys
- Assumes mitigation (other than specified) would be completed at a permitted mitigation bank (if required)
- Permit fees would be paid by others

### **Fee Schedule**

ESA will complete the identified tasks for the budget identified in the attached spreadsheet. Rates are consistent with the rates approved as Exhibit A for ESA under AVCON’s GEC with PIE.

